

**olinco**

**Olomouc Linguistics Colloquium**

**June 5–7 2014**

**Book of abstracts**



Language  
diversity and  
communication

CZ.1.07/2.3.00/20.0061



esf european  
social fund in the  
czech republic



EUROPEAN UNION



MINISTRY OF EDUCATION,  
YOUTH AND SPORTS



OP Education  
for Competitiveness



INVESTMENTS IN EDUCATION DEVELOPMENT



Olomouc Linguistics Colloquium

June 5 – 7 2014

Palacký University, Olomouc, Czech Republic

<http://olinco.upol.cz>

## **Book of Abstracts**

### **Contents:**

#### **Invited speakers (p. 17-21)**

**Bas Aarts**

Investigating spoken English syntax and usage

**David Adger**

Constraints on Phrase Structure

**Ocke-Schwen Bohn**

L2 speech learning: Do cross-language phonetic relationships provide a full account?

**Noam Chomsky**

Problems of Projection: Extensions

**Linda Polka**

The development of phonetic perception: a journey guided by speech input and intake.

## Oral presentations (p. 22-200)

**Víctor Acedo-Matellán and Cristina Real-Puigdollers**

Locative prepositions and quantifier scope: evidence from Catalan

**Sascha Alexeyenko**

Adverbs as PPs and the Semantics of *-ly*

**Manuela Âmbar and Ángel L. Jiménez-Fernández**

Subjunctives: How much left periphery do you need?

**Maria Andreou and Ianthi Maria Tsimpli**

Character Reference: A Study of Greek-German and Greek-English Bilingual Children

**Amir Anvari**

Remarks on Bridging

**Pilar P. Barbosa**

Pseudoclefts: (echo) questions and answers

**Jitka Bartošová and Ivona Kučerová**

Against a unified NP-deletion analysis of pronouns: Evidence from demonstratives in Czech

**Lucie Benešová, Michal Křen, and Martina Waclawičová**

ORAL2013: representative corpus of informal spoken Czech

**Štefan Beňuš, Uwe D. Reichel, and Katalin Mády**

Modelling accentual phrase intonation in Slovak and Hungarian

**Lolita Bérard and José Deulofeu**

On the limit between relative and “consecutive clauses”: the case of [NP Det [- def] N que X] construct in spoken French: a corpus based analysis.

**Theresa Biberauer**

Towards a theory of syntactic categories: an emergentist generative perspective

**Theresa Biberauer and Ian Roberts**

Conditional Inversion and Types of Parametric Change

**Veronika Bláhová and Filip Smolík**

Early comprehension of verb number morphemes in Czech: evidence for a pragmatic account

**Anna Bondaruk**

Three types of predicational clauses in Polish and constraints on their use

**Karolina Broś**

Polish voicing assimilation at the phonetics-phonology interface

**Elena Castroviejo and Berit Gehrke**

Manner-in-disguise vs. degree WELL

**Bożena Cetnarowska**

On the (lack of) referentiality of Polish relational adjectives

**Julia An-Lun Cheng and Lu Lu**

Reference Tracking Function of Chinese Nominal Classifiers

**Kateřina Chládková and Paul Boersma**

Distinctive features are emergent phonological representations: evidence from neural network models of L1 speech acquisition

**Natalia Cichosz**

Polish affectedness and experiencer datives as adjuncts

**Kristin Davidse**

Specificational and presentational there-clefts

**Mojmír Dočekal**

Intervention effects: negation, universal quantifiers and Czech

**Mojmír Dočekal, Scott Grimm, and Markéta Ziková**

How do you count a leaf?: On the rigidity of Czech noun semantics

**Tomáš Duběda**

When One Phonology Meets Another: The Case of Gallicisms in Czech

**Laurent Dumercy, Frédéric Lavigne, Tobias Scheer, and Markéta Ziková**

Anything goes: Czech initial clusters in a dichotic experiment

**Věra Dvořák**

A typology of null direct objects in Czech

**Jan Terje Faarlund**

Preposition stranding as a global isogloss

**Bruno Fernandes and Stephanie Vaz**

Acquisition of Attachment Preferences in European Portuguese

**Joanna Filipczak and Piotr Mostowski**

Doubling construction in Polish Sign Language. Corpus-based analysis

**Eva Flanderková, Andrea Hudoušková, and Barbara Mertins**

Does the Trace Deletion Hypothesis hold for Czech?

**Marcin Fortuna**

The interrelationship of the headedness of vowels and consonantal phonotactics

**Ludovico Franco, M. Rita Manzini, and Leonardo M. Savoia**

Linkers are not 'possession markers'

**Gustavo Andrade Nunes Freire**

Sentential Complements of Perception and Causative verbs: The interface between Language Acquisition and Theory of Mind

**Paula Roberta Gabbai Armelin**

Classifying nominals in Brazilian Portuguese: a syntactically unified account for Gender and Inflectional Vase

**Jovana Gajic**

The n-words paradox: universals or existentials?

**Carmen Gallar Sánchez**

Labels and locality: a reverse PF consequence

**Ljudmila Geist**

Reduced Referentiality and Event Dependency

**Mátyás Gerőcs and Lilla Pintér**

The role of Information Structure in children's interpretation of numerically modified expressions

**Ion Giurgea**

Romanian adnominal locative PPs and Argument Structure

**Giuliana Giusti and Rossella Iovino**

A Split-DP hypothesis for Latin and Italo-Romance

**Alexander Grosu**

A novel analysis of Transparent Free Relation

**Bill Haddican and Anders Holmberg**

Three ways to invert object order in the double object construction

**Jocelyn B. Hardman and Elizabeth A. McCullough**

Variation in phonetic-acoustic cues in Mandarin-accented English and its differential effects on intelligibility for American and Korean listeners

**Georg Höhn**

Unifying the semantics of unagreement and adnominal pronoun constructions

**Anders Holmberg**

The meaning of self-talk

**Dorota Jaworska and Tomasz Pasterski**

"You won't get it unless you're bilingual, kid!": On irony comprehension in Polish mono- and Polish-English bilingual children.

**Elżbieta Kaczmarska**

In Search of the Meaning of Verbs Expressing Mental States. Analysis of Czech Verbs and Their Polish Equivalents Based on Different Theories (Valency, Case Grammar, Pattern Grammar, Cognitive Linguistics)

**Ditte Kimps, Kristin Davidse, and Bert Cornillie**

A usage-based analysis of the modal and discourse marker uses of English tag questions

**Paul Kiparsky**

The two plurals: A case for allosemy

**Alenka Kocbek**

Translating Non-Literary Texts as Culturemes

**Marie Kopřivová, Hana Goláňová, Petra Klimešová, Zuzana Komrsková, and David Lukeš**

Multi-tier transcription of informal spoken Czech: the ORTOFON corpus approach

**Ivona Kučerová**

Gender-number interactions in defective  $\phi$ -feature chains

**Nikolaos Lavidas**

V<sub>1</sub> and VSO in the Greek Septuagint: Contact Effects of Translation and Their Role in Language Change

**Eva Lehečková and Martina Vokáčová**

Two aspects of metonymy alternations of Czech verbs

**Lo Chin-cheng**

The Utterance-final Glottalization in Taiwanese Mandarin: Interaction between Tone and Intonation

**Maciej Machnicki and Joanna Zaleska**

Syllable-driven conspiracy effects in European Portuguese

**Marta Marecka, Donata Janiszewska, and Anna Jelec**

Not in the same team: phonological short-term memory and phonological sensitivity do not interact to produce vocabulary learning effects

**Christina Märzhäuser**

Bare nominals as referring expressions in Spanish and French bare noun constructions

**Thomas McFadden**

Nominative stem-allomorphy and the structure of case

**Dimitra Melissaropoulou**

Word formation in the light of the language contact factor: the case of Cappadocian Greek

**Karolina Mieszkowska and Agnieszka Otwinowska-Kasztelanic**

Mental state language in the narratives of Polish monolingual and Polish-English immigrant children living in the UK

**Mark Newson**

English Modal Auxiliaries and Late Insertion

**Ruth Osimk-Teasdale, Nora Dorn, and Claudio Schekulin**

POS-tagging the Vienna-Oxford International Corpus of English: strategies and rewards

**Jamal Ouhalla**

Syntactic change in perspective: the development of genitive NPs and of differential direct object marking in Spanish Arabic.

**Fryni Panayidou**

Colour Adjectives in Cypriot Maronite Arabic

**Andrea Pešková**

The Use of Subject Pronouns in a Consistent Pro-drop Language

**Petr Pořízka**

Olomouc Corpus of Spoken Czech – Pilot Version

**Joseph Potashnik**

The Locus of the Causative-Unaccusative Alternation: Syntax or Lexicon?



**Anabela Rato**

Perception and Production of English vowels by Portuguese Learners: The Effects of Perceptual Training

**Edina Robin**

Explicitation and Implicitation in Revised Translations

**Patrícia Rodrigues and Maria José Fortran**

Small Nominals in Brazilian Portuguese Copular Constructions

**Alexandr Rosen**

A 3D taxonomy of word classes at work

**Pawel Rutkowski, Małgorzata Czajkowska-Kisil, Joanna Łacheta, and Anna Kuder**

The Syntax of Adjectival Modification in Polish Sign Language (PJM)

**Anja Šarić**

P-stranding in a non-P-stranding language: The Structure of Sluices in Serbo-Croatian

**Uli Sauerland**

Non-Conservative Quantifiers in German

**Uli Sauerland and Kazuko Yatsushiro**

On the Typology of Reported Speech: Partial Quotation vs. Transparent Shifters

**Louise Shepperd**

Influence of Orthographic Input on Phonological Representations of Nonnative Nonassimilable Contrasts: Adult Native English Speakers' Acquisition of Zulu Clicks

**Filip Smolík and Adam Kříž**

The power of imageability: effects of semantic factors on the acquisition of inflections

**Betsy Sneller**

Using corpus data as evidence for phonotactic constraints on /th/-fronting

**Helena Spilková**

Reduction of repeated mentions of content words in native and non-native English

**Branimir Stanković**

A third type of adjective modification? An evidence for DP in Serbo-Croatian?

**Hana Strachoňová**

Watch out for the universal quantifier!

**Laurel Smith Stvan**

Truth is, sentence-initial bare shell nouns are increasing

**Sandhya Sundaresan and Thomas McFadden**

In support of an articulated event-layer

**Magdalena Szczyrbak**

*Of course, indeed* or *clearly*? The interactional potential of modal adverbs in legal genres

**Enikő Tóth, Péter Csatár, and Arina Banga**

Factors influencing the use of demonstratives in Dutch and Hungarian

**Gabriella Tóth**

Achievement Verbs and Event Quantification

**M. Voghera, F. Cutugno, C. Iacobini, R. Savy, I. Alfano, and A. De Rosa**

VoLIP: a searchable Italian spoken corpus

**Marcin Wągiel**

From kinds to objects. Prenominal and postnominal adjectives in Polish

**Sean Wallis**

What might a corpus of spoken data tell us about language?

**Susi Wurmbrand**

Restructuring across the world

**Hedde Zeijlstra**

Upward Agree is superior

## **Posters (p. 201-297)**

**Petra Adámková**

Czech saturative constructions: the semasiological analysis

**Gábor Alberti, Judit Kleiber**

ReALIS: Discourse Representation with a Radically New Ontology

**Muhsina Alleesaib**

The reference of *bann* + NP in Mauritian Creole

**Grzegorz Aperliński and Aleksandra Leończyk**

The role of language proficiency in the perception of L2 voicing contrasts

**Anita Auszmann and Tilda Neuberger**

Age- and gender-related differences in formant structure during the stabilization

**Elena Babatsouli and David Ingram**

Cross-linguistic performance in a bilingual child's speech

**Štefan Beňuš and Juraj Šimko**

Fo-peak realization in Lombard speech

**Lolita Bérard**

Long Distance Dependency and processing constraints

**Marine Beridze and Zaal Kikvidze**

Troubles with ISO 639 Standards: the Case of a Kartvelian Corpus

**Hana Bogdanová**

On Japanese non-past morpheme RU

**Jadwiga Bogucka**

Feature resolution and agreement with coordinated subjects in Polish

**Michaela Čakányová and Lucie Černá**

English State Verbs of Attitude in Progressive Form

**Daniel Calvo Carmona**

Phonetic Computerised Training Studies: a Systematic Revision

**Victoria Camacho-Taboada and Ángel L. Jiménez-Fernández**

The puzzle of Romance discourse clitics

**Éva Dékány**

PPs and the silent PLACE noun: evidence from Hungarian case-marked pronouns

**Éva Dékány and Veronika Hegedűs**

Higher and higher: postpositions, prepositions, and particles in Hungarian

**Vojta Diatka**

Are Czech Interjections a Well-defined Part of Speech?

**Linda Doleží**

Reduction and elaboration in Czech coordinate structures: An elicited imitation task

**Kateřina Havranová**

Default Case in Dutch: A Comparative Study of Dutch and English Case Systems

**Viktória Horváth**

Disfluencies in school-age children's spontaneous speech

**David Hron**

About one divergence among Slavic languages

**Christian Huber**

Verbal plural in Shumcho

**Jana Kesselová**

The Grammatical Category of Case in Early Development of Slovak-speaking Children

**Dominika Kovářiková**

Adjectives in Spoken Czech

**Anna Kozánková**

Internal structure of possessive DPs in Czech and English

**Marie Krappmann**

The precarious status of modificateurs *surréalisants* in German and Czech

**Khrystyna Kunets**

Impersonal Sentences in the English Scholarly Texts in the Humanities: Typology and Frequency (with Some Remarks on Pragmatics)

**Maia Lomia and Rusudan Gersamia**

Syntactic Structures in Translation: the Kartvelian Data

**Anna Malicka-Kleparska**

Semantics behind the non-deletable arguments of morphologically complex transitive verbs: the case of Polish *roz-* transitives

**Michael McGuire**

Cyclic and post-cyclic integration and the conceptual-intentional system

**Milena Milenova and Katerina Nicolaidis**

The production of new and similar sounds by Bulgarian learners of Modern Greek

**Marek Nagy**

Semantic features production in adult speakers

**Kyriaki Neophytou, Marjolein van Egmond, and Sergey Avrutin**

Word frequency distributions in aphasic speech across languages

**Jeffrey Keith Parrott**

*Ain't* and the morphosyntax of *-n't*

**Lucía Quintana Hernández**

Aspect and Reciprocal Constructions with *Se*

**Robin Quizar**

Revitalization of Ch'orti', Descendant Language of the Classic Mayan Hieroglyphs

**Arkadiusz Rojczyk, Anna Balas, and Geoff Schwarz**

Immediate and distracted imitation in second-language speech: word boundary vowel hiatus in Polish English

**Marta Ruda**

LF Copying in the Absence of Ellipsis: the Case of E-Type Readings of Weak Pronouns

**Geoff Schwartz**

All gradience is not created equal

**Chao-Kai Shih**

On Restructuring in Takibakha Bunun

**Chao-Kai Shih and Atul Manqoqo**

Merging Applicatives in Takibakha Bunun

**Radek Šimík and Marta Wierzba**

Formal expression of information structure: experiments and modeling

**Radek Skarnitzl and Pavel Šturm**

Czech Assimilation of Voicing in English as a Second Language

**Daniela Slančová**

Linguistic picture of the world in incipient lexicon of Slovak-speaking children

**Lukas Sönning**

Vowel reduction in German Learner English

**Balázs Surányi and Veronika Hegedűs**

Complex predication in resultatives and depictives: A view from Hungarian

**Jolanta Sypiańska and Adam Olender**

Phonetic awareness in Polish learners of English

**Jakub Szewczyk and Zofia Wodniecka**

Determinants of non-word repetition accuracy

**James Thomas**

Introducing Word Templates and their semi-automatic derivation from corpora

**Kateřina Veselovská and Jana Šindlerová**

Patterns of Evaluative Meaning: the Case of Opinion Target

**Jacek Witkoś and Dominika Dziubała-Szrejbrowska**

The nominal non-phase: How the study of Polish nominals contributes to the phase theory

**Magdalena Zawrotna**

Dysphemisms and Euphemisms in Egyptian Arabic – Form, Function and the Social Context

# Invited speakers

## Bas Aarts

University College London, Great Britain  
b.aarts@ucl.ac.uk

### Investigating spoken English syntax and usage

In my lecture I will discuss the ways in which we can use parsed corpora of spoken English to investigate issues of syntax and usage. I will begin with a brief introduction to corpus linguistics and to the corpora housed at the Survey of English Usage (SEU), University College London (UCL), specifically the British component of the *International Corpus of English* (ICE-GB) and the *Diachronic Corpus of Present-Day English* (DCPSE). I will demonstrate how we can use the sophisticated corpus exploration software ICECUP, developed at the SEU, to find complex syntactic patterns in our data. I will then show how DCPSE can be used to track changes in the syntax of spoken English, specifically with regard to the progressive construction and constructions involving modal verbs. I will also show how corpora allow us to investigate with a high degree of precision what are the syntactic differences between spoken and written English. To this end I will follow up on work done by Miller and Weinert (1998) on noun phrase complexity in spoken English.

### References

Miller, Jim and Regina Weinert (1998) *Spontaneous spoken language: syntax and discourse*. Oxford: Clarendon Press.

## David Adger

Queen Mary, University of London, Great Britain  
d.j.adger@qmul.ac.uk

### Constraints on Phrase Structure

Current phrase structure theory takes structure building and structural transformation to be brought within a single component of the grammar (Merge).



External Merge always creates new compositional semantics, but the same cannot be said for all uses of internal Merge in current analyses.

While classical A-bar movement has clear semantic effects, and classical A-movement creates new possibilities for, say, semantic binding, the semantic effects of head movement and of roll-up movement are far less clear. In fact, the very few arguments for the semantic effects of head movement, and the lack of arguments for the semantic effects of roll-up movements are hugely surprising, given that external Merge always creates new compositional semantics, and Internal Merge is unified with External Merge. If heads are units of structure, then they should undergo internal Merge giving a head-movement configuration; similarly, if the complement of a head is a unit of structure, then it too should allow internal Merge creating a roll-up configuration.

This talk sketches a theory of constrained phrase structural representations where there are no functional heads qua lexical items. What we think of as functional heads are simply the labels of pieces of structure created via a process of self-Merge, so that in place of (1a), we have (1b), where the  $\wedge$  symbol is just a diacritic to separate out the label of a non head ( $X^\wedge$ ) from the label of a head ( $X$ ):

- (1) (a)  $[F^\wedge F [X^\wedge \dots X \dots ]]$   
 (b)  $[F^\wedge [X^\wedge \dots X \dots ]]$

I take  $F$  to be able to label the structure independently of the existence of a head  $F$ , since UG needs to independently specify what the legitimate extended projection of  $X$  is anyway (see Starke 2001, Williams 2003, Adger 2003). Since there are no functional heads, there is no head movement of functional heads. Rather head movement effects are achieved by pronouncing the entire extended projection rooted at  $X$  in  $[F^\wedge [X^\wedge \dots X \dots ]]$  as a morphological unit at either  $X^\wedge$  or at  $F^\wedge$ . Since this is part of linearization, one expects no semantic effects.

The system then predicts that specifiers are simply a case of what Chomsky 2012 calls an  $[XP YP]$  structure, but unlike Chomsky 2012, the label of this structure is given independently and depends on whether  $X$  or  $Y$  is the root of the relevant extended projection. So taking the label of  $[XP YP]$  to be  $F^\wedge$ , the issue is whether  $F^\wedge$  is in the extended projection of  $X$  or  $Y$ . Assume it is in the extended projection of  $Y$ , then  $XP$  is interpreted as the specifier of  $F^\wedge$  and  $YP$  is the complement of  $F^\wedge$ , with concomitant effects on linearization (specifiers before complements) and interpretation (complements before specifiers).

Now, say we move part of an extended projection to a position higher in that projection:

- (2)  $[G^\wedge YP [F^\wedge XP \langle YP \rangle ]]$

Here  $YP$ , is now in the same extended projection as  $F$  and  $G$ , and has been moved (internally Merged) to  $G^\wedge$ . But now the daughters of  $G^\wedge$  are  $YP$  (part of the same extended projection as  $G^\wedge$ ) and  $F^\wedge$  (also part of the same extended projection as

$G^{\wedge}$ ). But since both daughters of  $G^{\wedge}$  are in its extended projection, there is no way of establishing which is a specifier and which a complement, so the requirements that the interfaces have for the purposes of ordering linear order and semantic composition cannot be met, and the structure cannot be interpreted. This rules out roll-up structures, including any structure which, in previous nomenclature, would involve head movement of the root of the extended projection.

The system then rules out exactly the two kinds of uses of internal Merge that have no impact on the compositional semantics. I then explore the consequences for VP topicalization, which has been taken to require roll-up movement effects.

## Ocke-Schwen Bohn

Aarhus University, Denmark  
engosb@hum.au.dk

### **L2 speech learning: Do cross-language phonetic relationships provide a full account?**

Cross-language phonetic relationships play an important role in the two most widely used models of L2 speech learning, Flege's Speech Learning Model (SLM, Flege 1995) and Best & Tyler's Perceptual Assimilation Model for L2 learning (PAM-L2, Best & Tyler 2007). Using taxonomies which describe these relationships, SLM and PAM-L2 have been quite successful at predicting the ease or difficulty with which learners perceive and produce nonnative speech sound. However, there is also ample evidence that L2 learners' behavior is not always easily accountable in terms of straightforward phonetic relationships between the sound of the L1 and the L2. This talk first presents recent findings from L2 speech production and from cross-language speech perception which illustrate the success of SLM and PAM-L2. The talk then focuses on phenomena in L2 speech learning and cross-language perception which call for amendments of both SLM and PAM-L2.

## Noam Chomsky

Massachusetts Institute of Technology, Cambridge, MA, USA

### Problems of Projection: Extensions

I assume here the general minimalist research program, which I think is well-motivated on grounds of learnability, explanatory success, and the very limited information on origin of the human language faculty. In particular, I assume the conclusions of Chomsky (2013), including the abandonment of the endocentricity stipulation of X-bar theory and its descendants, and the separation of projection (labelling) from the principles of construction of expressions. A labelling algorithm, keeping to minimal search, assigns labels to expressions {X,Y} constructed by iterated Merge (external merge = EM or internal merge = IM); labelling yields no new category. If one of X, Y is a head, labelling is trivial: minimal search yields the head as a label. If neither is a head, labelling is possible only if search of X and Y yields agreeing heads, meaning that if one or the other was raised it is now in its  *criterial position* in Luigi Rizzi's sense. Assume further that at the Conceptual-Intentional interface, and for the rules of externalization, syntactic objects must be labeled. It follows that IM is successive-cyclic leading to a criterial position, and is forced to ensure labeling.

A further question is what Rizzi calls "the halting problem": why is there no further movement from a criterial position? A simple solution is outlined here that keeps to the minimalist assumptions just sketched. Further questions arise about special properties of subjects of CP: the Extended Projection Principle (=EPP) and the Empty Category Principle (=ECP). These can be unified under the labeling theory assumed, and the analysis can be extended to the second phase v\*P, where the object that is raised – in accordance with the object-raising analysis of Saito and Lasnik (1991), tracing back to work of Paul Postal's – is in a structural position analogous to subjects of CP. The ECP is violated for v\*P, and sometimes for CP (escape from the *that*-trace filter).

The reason for these apparent violations is the same, under the analysis presented, which also entails a revision of standard approaches to head-raising and sharpening of notions of phase-based memory. Work tracing back to Rizzi (1982) has shown that null-subject languages apparently differ in these properties, the parametric difference relating to "rich agreement." The basic distinctions also fall into place under the presented analysis. Several other anomalies of earlier proposals are also discussed and overcome.

## Bibliography

- N. Chomsky, 2013. "Problems of Projection." In *Lingua* 130.
- L. Rizzi. "Cartography, criteria, and labeling." In <http://ealing.cognition.ens.fr/ealing2012/handouts/Rizzi/Ealing%202012%20H0%20IV.pdf>
- Lasnik, H. and M. Saito, 1991. "On the subject of infinitives." In L. Dobrin, L. Nichols, and R. Rodriguez (eds.) *Papers from the 27th Regional Meeting of the Chicago Linguistic Society*, 324-343.

## Linda Polka

McGill University, Montreal, Canada  
linda.polka@mcgill.ca

### **The development of phonetic perception: a journey guided by speech input and intake.**

For many years, the development of phonetic perception has been a straightforward story with a familiar beginning (language-universal perceptual capacities) and end (a perceptual system that is exquisitely tuned to the native language) which are connected by a shift from language-general to language-specific perception occurring in the first year of life. A range of research findings now challenge this simple view. In this talk I will summarize the current state of this research field and I will argue that the early development of phonetic perception is guided by the interaction between input properties and intake biases. While research has focused on how input shapes phonetic perception there is increasing interest in how speech intake is directed and constrained from the infant side of this interaction. I will highlight the role of the Natural Vowel Referent (NRV) framework (Polka & Bohn 2011) in understanding the input/intake interaction.

# Oral presentations

Víctor Acedo-Matellán and Cristina Real-Puigdollers

Universidade do Minho; Universitat Autònoma Barcelona

victoracedoma@yahoo.com; cris.realp@gmail.com

## Locative prepositions and quantifier scope: evidence from Catalan

In this work we investigate the syntactic and semantic differences between the Catalan locative prepositions *a* and *en*, focusing on the case in which they take a universally-quantified DP as complement (1).

- (1) *a/en* tot l'illa  
*a/en* all the=island

We depart from the following set of data: in the case of *en*, and not in that of *a*, *en-tot* PPs behave as an NPI (examples 2 through 4),

- (2) Aquesta espècie de gripau #*(no)* viu en tot Mallorca/l'illa.  
This species of toad not lives all Majorca /the=island
- (3) Cap espècie de gripau viu en tot Mallorca/l'illa.  
No species of toad lives all Majorca /the=island
- (4) Dubto que aquesta espècie de gripau visqui en tot Mallorca/l'illa.  
I doubt that this species of toad live.sbjv.3sg all Majorca/the=island

*ii)* the universal quantifier appears to have wide scope with respect to negation (example 5). The wide scope reading of *tot*-DPs in a sentence like (5) is especially puzzling since sentence negation always scopes over universal quantifiers (Espinal 2008).

- (5) Aquesta espècie de gripau no viu en tot Mallorca/a tot Mallorca.  
No species of toad lives all Majorca /the=island

= With *en*, the sentence can only mean that there is not trace of this species of toad in all the island (ie. *tot*-DP has wide scope wrt. negation). With *a*, this species of toad can live in some parts of the island (ie. *tot*-DP has narrow scope wrt. negation).

*iii)* the complement of *en* is interpreted non-distributively, (example 6).

- (6) Hi ha 100 espècies de gripau en/a tot Mallorca.  
There are 100 species of toad all Majorca.

**The proposal:** Assuming Svenonius's (2010) analysis of the hierarchical structure of the PP as in (7), we claim that *en* lexicalises the tree down to the AxPart operator, which specifies a part of the Ground as defined by one of its axes. Insertion of *en* binds AxPart, inducing the interpretation that the Ground has in fact no axial parts and must be interpreted as a whole, without topological properties.

(7) [<sub>PP</sub> Figure p [<sub>PlaceP</sub> Place [... [<sub>AxPartP</sub> AxPart [<sub>KP</sub> K Ground]]]]]

The AxPart-less nature of the Ground in *en*-PPs forces its collective interpretation and makes *en* + *tot* DPs more inclusive than distributive *a* + *tot* DPs, accounting for the fact that acts as an NPI item (Ladusaw 1980, a. o.). The solution to the paradox in (5) has to do with the absence of quantified parts in the *tot*-DP that makes it impossible for an interpretation to emerge that some parts of the Ground are affected by the negation and other parts are not, which is the interpretation available with *a* + *tot*. The analysis also explains the selection properties of *en*-PPs (Sancho Cremades 2002, a.o.): the requirement that *en* (but not *a*) selects non-quantified grounds (bare plurals, mass bare singulars and akin, 8).

(8) Dormer {*a*/*\*en*} l'hotel; dormir {*en*/*\*a*} hotels; posar els cogombres {*en*/*\*a*} vinagre  
 Sleep *a/en* the=hotel; sleep *en/ \*a* hotels; put the cucumbers{*en/ \*a*}vinegar

## References

- Cabré i Monné, Teresa. 1980. Sobre les preposicions febles en català. A-EN. MA Thesis. Bellaterra: UAB.
- Clua i Julve, Esteve. 1996. Weak prepositions in Tortosan Catalan: Alternation of prepositions, allomorphy or phonological process. *Catalan Working Papers in Linguistics* 5. 29-66.
- Espinal, M. Teresa. 2008. La negació. In J. Solà, M.-R. Lloret, J. Mascaró & M. Pérez Saldanya (eds.), *Gramàtica del català contemporani*, vol. III: sintaxi (17-31), 2727-2797. Barcelona: Empúries.
- Fabra, Pompeu. 1918. *Gramàtica catalana*. Barcelona: Institut d'Estudis Catalans.
- Ladusaw, William A. 1980. *Polarity Sensitivity as Inherent Scope Relations*. NY: Garland.
- Longobardi, Giuseppe. Reference and proper names: a theory of N-movement in syntax and logical form. *Linguistic Inquiry* 25(4). 609-665.
- Sancho Cremades, Pelegrí. 2008. La preposició i el sintagma preposicional. In J. Solà, M.-R. Lloret, J. Mascaró & M. Pérez Saldanya (eds.), *Gramàtica del català contemporani*, vol. II: sintaxi (1-16), 1689-1796. Barcelona: Empúries.
- Svenonius, Peter. 2006. The emergence of Axial Parts. *Nordlyd* 33(1). 49-77.
- Svenonius, Peter. 2010. Spatial P in English. In G. Cinque and L. Rizzi (eds.) *Mapping spatial PPs: The cartography of syntactic structures*, 127-160. New York: Oxford University Press.

## Sascha Alexeyenko

University of Osnabrück, Germany  
olalyeks@uos.de

### Adverbs as PPs and the Semantics of *-ly*

The question whether adverbs in English constitute a lexical category lacks a well-established answer. There are reasons to assume that (de)adjectival adverbs and adjectives are syntactically conditioned variants of a single major category and *-ly* is an inflectional suffix (Emonds 1976, 1985; Sugioka & Lehr 1983; Bybee 1985): (a) adverbs and adjectives are in complementary distribution; (b) they take the same degree modifiers; (c) degree morphology cannot attach to *-ly* (*\*quicklier*); (d) *-ly* adverbs cannot participate in further derivation by suffixation (*\*quicklitude*). Yet the predominant view seems to be that adverbs are a separate lexical category and *-ly* is a derivational suffix (Zwicky 1995; Payne et al. 2010). Countering the arguments listed above, Payne et al. (2010) argue that (a) adverbs and adjectives are not in complementary distribution; (b) some of their modifiers are also shared with other categories; (c) some derivational suffixes are also incompatible with degree morphology (*\*basicer*) and (d) also prohibit further derivational suffixation (e.g., *-ism*; cf. Plag & Baayen 2009).

However, there are a number of facts that are difficult to explain both on the inflectional and derivational analyses of *-ly*, but follow automatically if *-ly* is analyzed as a nominal morpheme modified attributively by the base adjective: (a) diachronically, *-ly* derives from a Proto-Germanic noun *\*lika-* ‘body’ (cf. Romance *-ment(e)*); (b) synthetic comparatives and superlatives of *-ly* adverbs can be formed by deleting *-ly* and attaching degree morphology to the adjective stem (*quickly* → *quicker*); (c) *-ly* can sometimes be elided under coordination (*direct- or indirectly*), while suffixes in English cannot, unlike head constituents of compounds; (d) *-ly* adverbs generally cannot take complements, like attributive and unlike predicative adjectives (*\*a proud man of his daughter*; *\*proudly of his daughter*).

In view of these facts, we analyze *-ly* adverbs as compound PPs with a null head that contain *-ly* and the base adjective as its attributive modifier (see also Déchaine & Tremblay 1996; Baker 2003). *-ly* is a dummy noun inserted because English requires the head nouns of attributive adjectives to be overt (cf. *one*). Thus, the morphosyntactic structure of an adverb like *carefully* is as follows:

(1) [<sub>PP</sub> ∅ [<sub>DP</sub> ∅ [<sub>NP</sub> [<sub>AP</sub> careful ] [<sub>NP</sub> -ly ]]]]

This analysis also captures the facts that adjectives and adverbs take the same degree modifiers, that degree morphology cannot attach to *-ly*, and that the

distribution of adverbs matches that of PPs (including post-modification of nouns, cf. Payne et al. 2010). Finally, it reduces one lexical category to another.

Taking manner adverbs as a case study, we show that the structure in (1) maps well onto the semantics of manner adverbs that involves predication over manners as a basic semantic type (Dik 1975; Piñón 2007; Schäfer 2008), rather than that in standard (neo-)Davidsonian event semantics. Thus, manner adjectives denote properties of manners, type  $\langle m, t \rangle$ ; the P head assigns the manner  $\theta$ -role to  $-ly$ , i.e., denotes  $\lambda m \lambda e. \text{manner}(m)(e)$ ; the D head provides the quantifier over manners;  $-ly$  is semantically (near-)empty, i.e., has ‘light’ classifier-like semantics of  $\lambda m. \text{manner}(m)$ . Accordingly, *carefully* has the following semantics, type  $\langle v, t \rangle$ :

$$(2) [[\text{carefully}]] = \lambda e. \exists m [\text{manner}(m)(e) \ \& \ \text{careful}(m) \ \& \ \text{manner}(m)]$$

## References

- Baker, Mark. 2003. *Lexical Categories: Verbs, Nouns, and Adjectives*. Cambridge: Cambridge University Press.
- Bybee, Joan. 1985. *Morphology: A Study of the Relation Between Form and Meaning*. Amsterdam: John Benjamins.
- Déchaine, Rose-Marie, and Mireille Tremblay. 1996. “Adverbial PPs and Prepositional Adverbs in French and English.” In *Proceedings of the 1996 Annual Conference of the Canadian Linguistic Association*, 81–92. Calgary: Calgary Working Papers in Linguistics.
- Dik, Simon. 1975. “The Semantic Representation of Manner Adverbials.” In *Linguistics in the Netherlands 1972–1973*, edited by Albert Kraak, 96–121. Assen: Van Gorcum.
- Emonds, Joseph. 1976. *A Transformational Approach to English Syntax*. New York: Academic Press.
- Emonds, Joseph. 1985. *A Unified Theory of Syntactic Categories*. Dordrecht: Foris.
- Payne, John, Rodney Huddleston, and Geoffrey Pullum. 2010. “The Distribution and Category Status of Adjectives and Adverbs.” *Word Structure* 3 (1): 31–81.
- Piñón, Christopher. 2007. “Manner Adverbs and Manners.” Handout at the 7th Ereignissemantik Workshop, University of Tübingen.
- Plag, Ingo, and Harald Baayen. 2009. “Suffix Ordering and Morphological Processing.” *Language* 85 (1): 109–152.
- Schäfer, Martin. 2008. “Resolving Scope in Manner Modification.” In *Empirical Issues in Syntax and Semantics 7*, edited by Olivier Bonami and Patricia Cabredo Hofherr, 351–372. Paris: CSSP.
- Sugioka, Yoko, and Rachel Lehr. 1983. “Adverbial  $-ly$  as an Inflectional Affix.” In *Papers from the Parasession on the Interplay of Phonology, Morphology and Syntax*, edited by John Richardson, Mitchell Marks, and Amy Chukerman, 293–300. Chicago, IL: Chicago Linguistic Society.



Zwicky, Arnold. 1995. "Why English Adverbial -ly is not Inflectional." In *Papers from the 31st Regional Meeting of the Chicago Linguistic Society*, edited by Audra Dainora, Rachel Hemphill, Barbara Luka, Barbara Need and Sheri Pargman, Vol. 1, 523-535. Chicago, IL: Chicago Linguistic Society.

## Manuela Âmbar & Ángel L. Jiménez-Fernández

FLUL-CLUL, Universidade de Lisboa & Universidad de Sevilla  
manuela.ambar.flul@gmail.com & ajimfer@us.es

### Subjunctives: How much left periphery do you need?

Background: There has always been certain controversy with respect to the semantic and syntactic analysis of subjunctive clauses (Quer 2005). Properties such as obviation (impossibility of coreference of subjunctive subject and matrix subject; Picallo 1985), defective tense (tense in subjunctives seems to be dependent on matrix tense; Picallo 1985 and Raposo 1985), the existence of an operator-like Comp in subjunctives (Kempchinsky 1985, 1990) have all been the main focus of research in the literature. However, little attention has been paid to the information structure of subjunctive sentences. The exceptions have been Kempchinsky (2008) and Baunaz et al. (2013). For the former desiderative verbs are not compatible with contrastive focus in the subjunctive clause; for the latter directives and desideratives may have a full left periphery allowing CF (with other verbs the LP in the subjunctive clause is defective and 'truncated' à la Haegeman (2007).

Goal: In this paper we explore the left periphery of subjunctive clauses selected by desideratives and psych-emotive verbs concentrating on the availability of contrastive focus in Portuguese, Spanish and English. We claim that the composition of the LP correlates with the distinction between agreement-prominent languages and discourse-prominent languages in that the latter allow for a more flexible LP in subjunctives. Moreover, it also correlates with the specific type of matrix verbs which select the subjunctive clause. We argue that in Portuguese and Spanish (discourse-prominent languages) CF is possible with desiderative and psych-emotive verbs, but the focused element occupies a postverbal position (examples 1-2), whereas in English (agreement-prominent languages) CF is not allowed in subjunctives (examples 3-4), in line with Hooper and Thompson (1973):

- (1) Quiero que coloques LOS LIBROS en aquella estantería (no las revistas). Spanish  
Quero que OS LIVROS coloques na estante (não as revistas). Portuguese
- (2) ??Quiero que LOS LIBROS coloques en aquella estantería (no las revistas). Spanish  
?? Quero que OS LIVROS coloques na estante (não as revistas) Portuguese  
'I want you to put THE BOOKS in that shelf, not the magazines.'

- (3) \*The professor asked that HER RESEARCH PAPER Mary submit before the end of the month (not her dissertation).

Proposal: Within cartography, subjunctives in Portuguese and Spanish project Force, which is a syncretised head made up of two heads, Evaluative and Assertion (Âmbar 1999, 2003), and any discourse-related categories below Force. Concentrating on desideratives and psych-emotives we explain the preference of the pattern V-CF over CF-V by proposing that V moves to Assert (for tense reasons related with the event; also to value an [Evaluative] feature, connected with focus). CF undergoes movement to spec-FocP but the V surpasses Foc since it targets a higher position.

### References

- Âmbar, Manuela. 1999. "Aspects of the syntax of Focus in Portuguese." In *The Grammar of Focus*, edited by Georges Rebuschi & Laurice Tuller, 23–53. Amsterdam/Philadelphia: John Benjamins.
- Âmbar, Manuela. 2003. "Wh-asymmetries." In *Asymmetry in Grammar*, edited by Anna Maria di Sciulo, 209–251. Amsterdam: John Benjamins.
- Baunaz, Lena, Genoveva Puskas and Tomislav Socanac. 2013. "Control your mood! A cross-linguistic study of subjunctive clauses." Paper presented at Balkan Syntax Workshop of the SLE, U. of Split.
- Kempchinsky, Paula (1986). Romance Subjunctive Clauses and Logical Form. PhD dissertation, UCLA.
- Kempchinsky, Paula (1990). Más Sobre el Efecto de Referencia Disjunta del Subjuntivo . In: *Indicativo y Subjuntivo* . Ignacio Bosque(Ed.), 234 258. Madrid: Taurus .
- Kempchinsky, Paula. 2008. "How much structure does the left periphery need?". Paper presented at the Linguistic Symposium on Romance Languages 38, University of Illinois-Urbana Champaign.
- Picallo, Carme. 1984. "The Infl Node and the Null Subject Parameter." *Linguistic Inquiry* 15: 75–101.
- Quer, Josep. 2005. "Subjunctives." In *The Blackwell Companion to Syntax*, vol. IV, edited by Martin Everaert and Henk van Riemsdijk. Blackwell Reference Online.
- Raposo, Eduardo. 1985. "Some Asymmetries in the Binding Theory in Romance." *Linguistic Review* 5: 75–110.

**Maria Andreou<sup>1</sup> and Ianthi Maria Tsimpli<sup>1,2</sup>**

Aristotle University of Thessaloniki, Greece<sup>1</sup>; University of Reading, Great Britain<sup>2</sup>  
marandreu@enl.auth.gr; imt@enl.auth.gr

## **Character Reference: A Study of Greek-German and Greek-English Bilingual Children**

Our study investigates the development of character reference in Greek by comparing narrative production data from 40 Greek-German and 40 Greek-English 8-10 year-old typically developing bilingual children. The focus of our study is on the form of referential expressions (indefinite and definite DPs, null and overt pronominals and clitics) on the one hand, and their function (character introduction, maintenance and reintroduction) on the other. Neither English nor German are null subject languages, like Greek, nor clitic languages. We thus aim to examine crosslinguistic influence in the use (or overuse) of overt subject pronouns in bilingual Greek grammars and possible differences in the frequency of clitic use in bilingual as compared to monolingual, age-matched children.

Narrative production is elicited with story telling and retelling. Berman (2009) claims that in monolingual children appropriate use of referential forms in self-sustained narrative discourse develops by the age of 10. Two stories of the Edmonton Narrative Norms Instrument (ENNI) were developed in Greek in order to test the retelling condition (Schneider & Dubé 2005). Story retelling is expected to prime the use of referential forms whereas in telling the child's language production reflects language choices more directly (Schneider & Dubé, 2005). We thus expect improved production of referential forms in narrative retelling compared to the telling mode. Each story was followed by comprehension questions to establish the child's ability to understand story coherence. We also wanted to see if there is a different pattern based on the languages involved. Our preliminary analysis of the data indicates that bilingual children perform better in the retelling than in the telling condition. Moreover, for both Greek-German and Greek-English children the problematic category is character Introduction which involves the use of indefinite DPs in the target language. Wong et. al (2004) also report that children are better at maintaining reference than introducing a new referent. Both Greek-German and Greek-English bilingual children produce in high percentages definite DPs for character introduction, which is an inappropriate choice in Greek. However, the Greek-German group produces statistically significant more definite DPs than the Greek-English group in Introduction. Another difference detected between the two groups is that Greek-English children show omissions of the articles in their

production, a behavior that does not appear in Greek-German children. We argue that given the ‘older’ age of the bilingual children, the substitution of definite for indefinite DPs reflects a language rather than a discourse problem, and in particular the overuse of the Greek definite article by bilingual children in this context. Omission of articles by Greek-English children probably indicates crosslinguistic influence of bare DP subjects from English to Greek.

### References

- Berman, R. A. 2009. Language Development in narrative contexts. In E. Bavin. *The Cambridge Handbook of Child Language*. (pp. 355-375) Cambridge: Cambridge University Press.
- Schneider, P. & R. V. Dubé 2005. Story presentation effects on children’s retell content. *American Journal of Speech-Language Pathology* 14, 52-60.
- Vogindroukas, I., A. Protopapas & G. Sideridis 2009. *Experiment on the Expressive Vocabulary (Δοκιμασία εκφραστικού λεξιλογίου)* (Greek version of Renfrew Word Finding Vocabulary Test). Chania, Crete: Glafki.
- Wong, M. Y. A., & J. R. Johnston 2004. The development of discourse referencing in Cantonese-speaking children. *Journal of Child Language*, 31; 633-660.

### Amir Anvari

Carleton University, Canada

amiranvari@cmail.carleton.ca; amiraanvari@gmail.com

### Remarks on Bridging

This paper concerns the status of bridging inferences (Clark 1975). An instance of bridging occurs in (1), where the knife is intuitively understood to have been the murder weapon, even though this link is not explicitly asserted or mentioned.

(1) *John was murdered last night. The knife was found nearby.*

It has been suggested (e.g., Löbner 1996, Asher & Lascarides 1998) that in general bridging is also available for indefinite NPs (e.g., (2a)), the difference being perhaps in the degree of epistemic certainty of the bridge (thus the NP in (2a) could presumably be paraphrased as ‘the knife might have been used to murder John’); similar effects can also be observed in cases where the definite is bound to a suitable antecedent (cf. (2b)).

(2a) *John was murdered last night. A knife was found nearby.*

(2b) *Jack stole a knife last week. Last night John was murdered. The knife was found nearby.*

In this paper it will be argued that there is a significant difference between cases like (1) and ones like (2a-b). In particular, I will argue that the former, but not the latter, are non-defeasible and mandatory, and show the same projection behavior as presuppositions. I will argue for non-defeasibility and mandatoriness based on some new data such as the pair in (3).

(3) *John was murdered last night. {a. # The knife / b. A knife} was used for the murder.*

The oddness of (3a), I argue, arises because bridging is mandatory, so that the reading in (3a) can be paraphrased as ‘the knife that was used for the murder was used for the murder’; the oddness is immediate. This observation should be contrasted with the fact that basic accommodation (in the sense of van der Sandt (1992), Heim (1982/3)) would save (3a) from oddness, giving a meaning that is essentially synonymous to (3b).

Further, I argue that bridges in the first, but not the second, class show the same projection behavior under different embeddings (and relative to suitable linguistic environments) as presuppositions in general (Beaver 2001). For instance the same inference is drawn in (4a-b) as (1).

(4) *John was murdered last night. {a. If the police finds the knife, they can do their job faster. / b. The knife hasn't yet been found.}*

I will argue that approaches that construe bridging as a purely extra-grammatical process (such as the coherence-based approach of A&L 1998 and the essentially Gricean approach of Roberts 2003) fail to capture the data. I instead turn to some brief suggestions in Heim (1982). There it is noted that bridging (“cross-referencing”) might be captured as a constraint on accommodation. Considering the general theory presented in Heim (1982) this proposal in its simplest formulation amounts to the claims that bridging (i) is specific to antecedent-less definites, (ii) is intimately connected to the semantic component of the grammar, and (iii) is mandatory (i.e., within certain limits to be explicated no bridging amounts to no accommodation). I will show that this approach can account for the data more satisfactorily and makes several correct predications along the way; I will also attempt (not completely successfully) to derive this constraint from more general principles of pragmatics. Other closely related issues such as domain restrictions and uniqueness are also addressed.

## References

- Asher, Nicholas, and Alex Lascarides. 1998. “Bridging.” *Journal of Semantics* 15(1) : 83-113.
- Beaver, David. 2001. *Presupposition and Assertion in Dynamic Semantics*. Vol. 29. Stanford: CSLI publications.
- Heim, Irene. 1982. *The Semantics of Definite and Indefinite Noun Phrases*. PhD Diss. University of Massachusetts, Amherst.

- Heim, Irene. 1983. "File Change Semantics and the Familiarity Theory of Definiteness." In *Meaning, Use and Interpretation of Language*, edited by Bauerle, R., Schwarze, Ch. & Von Stechow, A. Berlin: De Gruyter,
- Löbner, Sebastian. 1996. "Associative Anaphora." *Proceedings of the Workshop on Indirect Anaphora*.
- Roberts, Craige. 2003. "Uniqueness in Definite Noun Phrases." *Linguistics and Philosophy* 26(3) : 287-350.
- van der Sandt, Rob. 1992. "Presupposition Projection as Anaphora Resolution." *Journal of Semantics* 9(4) : 333-377.

## Pilar P. Barbosa

CEHUM/Universidade do Minho, Portugal  
pbarbosa@ilch.uminho.pt

### Pseudoclefts: (echo) questions and answers

This paper focuses on two particular types of cleft in European Portuguese: specificational pseudoclefts (cf. 1); and semipseudoclefts (cf. 2). Specificational pseudoclefts come in two types: those that feature *wh* < XP order (cf. 1a) and those that display XP < *wh* order (cf. 1b).

- (1) a. Type A specificational pseudocleft  
De quem o João gosta é da Maria.  
of whom the João likes is of-the Maria
- b. Type B specificational pseudocleft  
A Maria é de quem o João gosta.  
the Maria is of whom the João likes
- (2) O João gosta é [-] da Maria.  
the João likes is of-the Maria  
'Maria is who John likes'

There are two approaches to the status of the *wh*-clause in specificational pseudo-clefts:

- A. it is a free relative (Akmajian (1979), Heggie (1988) Declerck (1988));  
B. it is a *wh*-question, the pseudocleft is an elided self-answered question (Faraci 1971; Ross 1972, 1999; Den Dikken et al. 2000; Schlenker 1998). We will argue that the free relative analysis is adequate for Type B pseudo-clefts, but inadequate for Type A. Two key features uniquely characterize Type A pseudoclefts: (i) they show connectivity effects with respect to negative polarity items (cf 4), unlike Type B; (ii) when the *wh*-moved element is a PP, XP must also be a PP (compare (3) with (1b):

- (3) De quem o João gosta é da Maria/\*a Maria

If Type A pseudoclefts are bi-clausal, these facts are immediately explained. In this analysis, the *wh*-clause is a *wh*-question, XP is an elided IP and *be* establishes an identity relation between the two:

- (4) a. O que ele não faz é coisa nenhuma.  
 The what he not does is thing none  
 ‚What he doesn’t do is anything.‘  
 b. *Syntax*: [O que ele não faz] é [ele não faz coisa nenhuma]  
 c. *Spell out*: O que ele não faz é ele não faz coisa nenhuma.

In (4b), NEG c-commands the negative polarity item *coisa nenhuma*, as desired. The contrast in (3) also follows from the bi-clausal analysis, in view of the following question-answer pairs:

- (5) De quem é que o João gosta?            Da Maria. / \*A Maria.  
 ‚Who does John like?‘                      of-the Maria / the Maria

This hypothesis, however, also faces problems: first, yes-no questions are incompatible with pseudoclefts; secondly, there are pseudoclefts that lack an interrogative counterpart:

- (6) a. O que a Maria está é cansada.            b. \*A: O que é que a Maria está?    B: Cansada  
 ‚What Mary is is tired.‘                      the what is-it that the M. is    tired

Now, even though (6b) is ungrammatical as a genuine question, it is fine as an echo-question.

- (7) A. Estou tão cansada!            B. Estás o quê???? / O que é que tu estás????  
 ‚I am so tired!‘                      ‚You are what?‘    ‚What is it that you are?‘

Our proposal is that the first term of a Type A pseudocleft is an echo-question. We adopt Artstein’s (2002) analysis, according to which echo-questions are interpreted through Focus-semantics. In English non-*wh*-echo questions, the echo intonation is imposed on a declarative sentence, and a rising pitch accent is placed on the word or phrase that is being questioned:

- (8) A: I gave flowers to George.    B: You gave FLOWERS to George?

In non-*wh* echoes Focus divides the utterance in given information and new information; the process involves the substitution of the constituent marked with Focus by a variable to yield its alternative P-set  $[[[.]]^f$ . Alternative sets for *wh* and non-*wh* eco-questions turn out to be identical. The hypothesis that the first term of the Type A pseudocleft is an echo-question has the potential to explain the absence of a yes-no question in a pseudocleft. If Artstein is right, a non-*wh*-echo question must contain a Focus marked constituent. However, the Focus *in situ* strategy is not available in a pseudocleft: the value of the variable would be given in the first term and introduced again in the second term, which would be uninformative. The derivation can be rescued, however, if the constituent marked as Focus is deleted in PF. This yields the Semi-Pseudocleft (2), now regarded as the pseudocleft counterpart to a non-*wh*-eco-question:

- (9) [O João gosta [da Maria]]<sup>f</sup> é [ O João gosta da Maria]

Jitka Bartošová and Ivona Kučerová

McMaster University, Hamilton, Canada

bartoj3@mcmaster.ca; kucerov@mcmaster.ca

## Against a unified NP-deletion analysis of pronouns: Evidence from demonstratives in Czech

We provide new empirical evidence against a unified analysis of referential pronouns as morphological exponents of an elided NP with a definite D (Postal 1966, Elbourne 2006, a.o.), [<sub>DP</sub> the NP]. Instead, we argue that by default pronouns are anaphoric to a functional concept, [<sub>DP</sub> the P] (van Rooy 1997, 2001; Schwager 2007), i.e., they are anaphoric to a linguistic antecedent only indirectly (Sauerland 2008). A direct linguistic binding becomes possible only if a pronoun corresponds to a more complex syntactic structure, e.g., if a pronoun is an exponent of an indefinite combined with an anaphoric element (a structure which may arise via movement as in relative clauses, Hulseley and Sauerland 2006, a.o.). The empirical evidence comes from demonstrative pronouns in Czech.

**The puzzle:** It has been extensively argued that semantic differences in the semantic interpretation of pronouns have a direct correlate in their syntactic structure (Wiltschko 1998, Cardinaletti & Starke 1999, Dechaine and Wiltschko 2002, a.o.). Czech demonstrative pronouns present a puzzling pattern for these theories as their form strictly depends on their position in the syntactic structure, while their interpretation seem to be invariant. As we can see in (1-a) the demonstrative pronoun T0 (bimorphemic: t-AGR $\phi$ ; where t- corresponds roughly to English anaphoric th-) can refer either to an entity or to an event without any change in its form. If, however, such a pronoun is located in the left periphery then it must agree with its linguistic antecedent in  $\phi$ -features (number and gender), (1-b). If the antecedent is an event, hence, the antecedent does not have  $\phi$ -features to match, the pronoun appears in N.SG, (1-c), which is the morphological default attested in weather predicates etc., i.e., in structures lacking  $\phi$ -feature valuation. Crucially, if T0 appears lower in the structure, the  $\phi$ -feature agreement cannot take place, even if the pronoun exclusively refers to a nominal referent with fully specified  $\phi$ -features, (1d).

**The proposal:** We argue that the invariant T0 located lower in the structure cannot agree in  $\phi$ -features because it is anaphoric to a functional concept, not to a linguistic referent as such (van Rooy 1997, 2001; Schwager 2007). Consequently, it does not contain any NP-like structure which might provide  $\phi$ -features. The corresponding semantic meaning is given in (2). T0 located in the left periphery is crucially different in that it is anaphoric to a linguistic antecedent. The semantic



distinction is demonstrated in (3): while T0 with a linguistic antecedent can be an argument of an adjectival predicate, (3-a), i.e., it functions as an individual, T0 referring to a functional concept is grammatical in specificational copular clauses, (3-d), but crucially it cannot be predicated upon, (3-b)–(3-c). As for the agreeing T0, let's observe that it cannot, unlike its invariant counterpart, be embedded in exclamative clauses which disallow CP recursion (4-b)–(4-c). The fact that the invariable T0 may appear in imperatives with a very similar meaning, (4-d), supports the conclusion that the invariable T0 is in a functional projection higher than TP. In particular, we argue that the agreeing T0 is in *spec,TopP*. More precisely, we argue that agreeing T0 is an overt realization of a structure which arises via movement to *TopP*, i.e., it is a morphological exponent of an indefinite and an anaphoric element (analogically to relative pronouns in relative clauses; Hulse and Sauerland 2006). The corresponding interpretation is that of topic in the sense of von Stechow (1994), i.e., the topic element requires a set of propositions in the common ground. We argue that the indefinite adjoined at the propositional level creates a set of propositions (Reinhart 1997, Winter 1997, Menendez-Bonito 2006, a.o.). The anaphoric part of the expression picks a unique proposition derived from the set of alternatives given by the indefinite. This fact also explains why the invariable T0 cannot appear in the left periphery: since it does not contain an indefinite, it cannot give rise to alternatives necessary for the topic interpretation.

- (1) Dopsali       jsme               naši       knihu.  
 finished.PP are.1pl           our       book.F.SG.  
 'We have finished writing our book.'
- a. Bylo           to               naším       úkolem.  
 was.3.N.SG T0.3.N.SG our           assignment.M.SG.  
 'It was our assignment.' [it: ✓ the book; ✓ the event of writing a book]
- b. Ta             byla           naším       úkolem.  
 T0.F.SG       was.3.F.SG our           assignment.M.SG.  
 'It was our assignment.' [it: ✓ the book; \* the event]
- c. To            bylo           naším úkolem.  
 T0.N.SG was.3.N.SG our           assignment.M.SG.  
 'It was our assignment.' [it: \*the book; ✓ event]
- d. \*Byla        ta             naším       úkolem.  
 was.3.F.SG T0.3.F.SG our           assignment.M.SG.  
 'It was our assignment.' [intended: it: the book]

- (2)  $\llbracket \text{TO} \rrbracket = \llbracket \text{the } P \rrbracket = \lambda w. \lambda x [R(w) = x]$ ,  
 where  $R$  is a contextually salient individual concept such that for all  $w$  in the common  
 ground:  $R(w) \in P(w)$  (modelled after Schwager 2007)

- (3) Představila nám svého manžela.  
 introduced.PP.F.SG to-us her husband  
 'She introduced her husband to us.'
- a. Ten byl chytrý.  
 TO.M.SG wasM.SG smart.M.SG  
 'He is/was smart.'
- b. \*Bylo to chytré.  
 wasN.SG TO.N.SG smart.N.SG  
 (intended: 'He was smart.')
- c. \*Byl to chytrý.  
 wasM.SG TO.N. smart.M.SG  
 (intended: 'He was smart.'; okay as 'It was smart.')
- d. Byl to učitel.  
 was.N.SG TO.N.SG teacherM.SG  
 'He was a teacher.'
- (4) a. Ne abys zase utratil všechnu podporu.  
 Not that-AUX.2SG again spent all welfare.F.SG  
 'Just don't spend again the whole welfare payment.'
- b. Ne abys to zase všechno utratil.  
 Not that-AUX.2SG TO.N.SG again all spent  
 'Just don't spend it again.'
- c. \*Ne abys tu zase všechnu utratil.  
 Not that-AUX.2SG TO.F.SG again all spent
- d. Tu zase všechnu neutrat'.  
 TO.F.SG again all not-spend.IMP  
 'Don't spend it all!'

## Lucie Benešová, Michal Křen and Martina Waclawičová

Institute of the Czech National Corpus, Faculty of Arts, Charles University in Prague  
{lucie.benesova,michal.kren, martina.waclawicova}@ff.cuni.cz

### ORAL2013: representative corpus of informal spoken Czech

ORAL2013 is a new corpus of informal spoken language released in December 2013 within the framework of the Czech National Corpus (CNC) and available at <http://www.korpus.cz/> to all registered CNC users. It is designed as a representation of contemporary spontaneous spoken Czech used in informal, real-life situations. The aim of this contribution is to introduce ORAL2013 and to discuss its design, balance, transcription guidelines and practical solutions adopted during the data collection process.

ORAL2013 is a continuation of the series of informal spoken Czech corpora being compiled at the CNC and its design is thus based on its predecessors, ORAL2006 (Kopřivová & Waclawičová 2006) and ORAL2008 (Waclawičová et al. 2009). All the ORAL-series corpora share the same transcription guidelines, the most important difference being a switchover from traditional (ORAL2006, ORAL2008) to pause-based punctuation (ORAL2013; Válková et al. 2012). In order to ensure prototypicality of spontaneous spoken language (Čermák 2009) recorded in all the ORAL-series corpora, the following key requirements were met:

- non-public and unofficial situation;
- dialogues (two or more speakers) on topics not given in advance;
- physical presence of speakers who know each other;
- speakers mostly unaware of the recording (permission granted afterwards).

ORAL2013 also features a number of enhancements compared to its predecessors:

- transcriptions manually aligned with the sound using Transcriber (Geoffrois et al. 2000) so that a user can hear actual realization of every utterance in the query interface;
- coverage of the whole of the Czech Republic;
- explicitly marked overlaps;
- speakers identical across several recordings indicated by sharing their "nickname";
- metadata include also type of the communication situation.

ORAL2013 comprises 835 recordings from 2008–2011 that contain 2,785,189 words (i.e. 3,285,508 tokens including punctuation) uttered by 2,544 speakers, out of which 1,297 speakers are unique. The recordings were made in Bohemia, Moravia and Silesia, their total length amounts to 17,471 minutes (almost 300 hours). The corpus is (approximatively) balanced in basic sociolinguistic categories of gender, age group, education and region of childhood residence (cf. the next page; regions follow

the traditional dialectological division in Balhar 1992–2011). We believe that ORAL2013 will prove to be a useful source of data for various kinds of linguistic studies, as well as for many fields of natural language processing.

## References

- Balhar, Jan, ed. 1992–2011. *Český jazykový atlas* (Vols. 1–6). Praha: Academia.
- Čermák, František. 2009. “Spoken Corpora Design. Their Constitutive Parameters.” *International Journal of Corpus Linguistics* 14 (1): 113–23.
- Geoffrois, Edouard, Claude Barras, Steven Bird, and Zhibiao Wu. 2000. “Transcribing with Annotation Graphs.” In *Proceedings from The Second International Conference on Language Resources and Evaluation (LREC)*, 1517–21.
- Kopřivová, Marie, and Martina Waclawičová. 2006. “Representativeness of Spoken Corpora on the Example of the New Spoken Corpora of the Czech Language.” In *Труды международной конференции “Корпусная лингвистика – 2006”*, 174–81. Санкт-Петербург: Издательство СПбГУ.
- Válková, Lucie, Martina Waclawičová, and Michal Křen. 2012. “Balanced data repository of spontaneous spoken Czech.” In *Proceedings of the Eighth International Conference on Language Resources and Evaluation (LREC)*, 3345–9. Accessed January 30, 2014. [http://www.lrec-conf.org/proceedings/lrec2012/pdf/179\\_Paper.pdf](http://www.lrec-conf.org/proceedings/lrec2012/pdf/179_Paper.pdf).
- Waclawičová, Martina, Michal Křen, and Lucie Válková. 2009. “Balanced Corpus of Informal Spoken Czech: Compilation, Design and Findings.” In *Proceedings of the 10th Annual Conference of the International Speech Communication Association INTERSPEECH 2009*, 1819–22.

## Appendix

Gender	Women	Men
	1,359,761	1,425,428
Age group	Younger (18-34)	Older (35 or more)
	1,458,386	1,326,803
Education	Lower	Higher
	1,515,732	1,269,457

Table 1: Number of words in selected binary categories.

Region of childhood residence	Number of words
Central Bohemia	570,283
Northeast Bohemia	353,486
Southwest Bohemia	315,716
Bohemian borderland	191,553
Bohemian-Moravian transient region	83,478
Central Moravia	503,391
Eastern Moravia	359,249
Silesia	317,087
Moravian borderland	90,946

Table 2: Number of words in the region of childhood residence category.

Štefan Beňuš<sup>1,2</sup>, Uwe D. Reichel<sup>3</sup>, and Katalin Mády<sup>4</sup>

<sup>1</sup>Constantine the Philosopher University in Nitra, Slovakia

<sup>2</sup>Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia

<sup>3</sup>University of Munich, Germany

<sup>4</sup>Hungarian Academy of Sciences, Budapest, Hungary

sbenus@ukf.sk; reichelu@phonetik.uni-muenchen.de; mady@nytud.hu

## Modelling accentual phrase intonation in Slovak and Hungarian

According to Jun & Fletcher (2014), languages with fixed lexical stress towards the edge of the word often include accentual phrases (AP) as a lower-level structural prosodic unit between the Prosodic Word (PrWd) and the Intermediate Phrase (ip). Accented syllables thus serve as demarcative units at the left or right edge of the AP, like in Korean, French or Japanese (Jun 2005). APs also tend to show a stable recurrent Fo pattern in various contexts, that can be rising, falling, or rising-falling, depending on the language.

Slovak and Hungarian both have fixed word-initial lexical stress and they thus belong to languages for which AP might be a relevant structural level in their intonational phonology. This hypothesis was explored in a recent study (Anonymous)

that employed the linear stylisation of the Fo midline throughout putative APs and intonation phrases (IPs). It was assumed that if the prosodic structure includes APs, then AP midline 1) differs from the IP one, and 2) shows a preference for rising or falling patterns. These assumptions were supported by the Hungarian data while the Slovak data did not allow for a similar conclusion.

While this previous study employed linear stylization for the assessment of Fo contour types, testing thus the relevance of APs based on falling or rising Fo contours, the current study uses modelling by 2nd order polynomials to test the assumption that rising-falling contours serve as evidence for AP relevance in a given language. Using spontaneous data for testing the proposal for a formal structural description (AP level within the intonational phonology), this study fits within the conference topic *language use and linguistic structure*.

The material consisted of 50 Slovak and Hungarian spontaneous utterances forming a single IP with at least 2 pitch accents and a low phrase-final boundary tone. These were selected from collaborative dialogues (5 utterances of 10 Slovak and 10 Hungarian speakers, respectively). Within each accent group a 2nd order polynomial was fitted to the Fo contour; examples from both languages are shown in Fig. 1. The curvature of the Fo contour can be thus quantified in terms of the quadratic coefficient of the polynomial. Given the lack of evidence for falling (or rising) recurrent APs in Slovak (Anonymous), we wanted to test the frequency of rising-falling contours as evidence for the relevance of APs. Quadratic coefficients differed significantly between the Slovak and the Hungarian data (2-tailed t-test,  $p < 0.001$ ); also shown in Fig. 2. For the Slovak data the mean quadratic coefficient value of -0.99 reflects a tendency for concave (rising-falling) Fo patterns. For the Hungarian data this tendency was not observed (mean 0.59). This difference was confirmed by the finding that in the Slovak data the parabolic stylizations contained an Fo maximum within the time interval of the accent group significantly more often than in Hungarian ( $\chi^2$  test,  $p < 0.001$ ).

The results show that the rising-falling Fo pattern is frequent in putative Slovak APs. This is in line with the observation that pitch accents in Slovak often have delayed peaks and thus the APs might begin with a rise followed by a fall after the peak. It can be argued that Slovak makes use of the initial accents within a phonological word as an AP phrase-boundary marker.

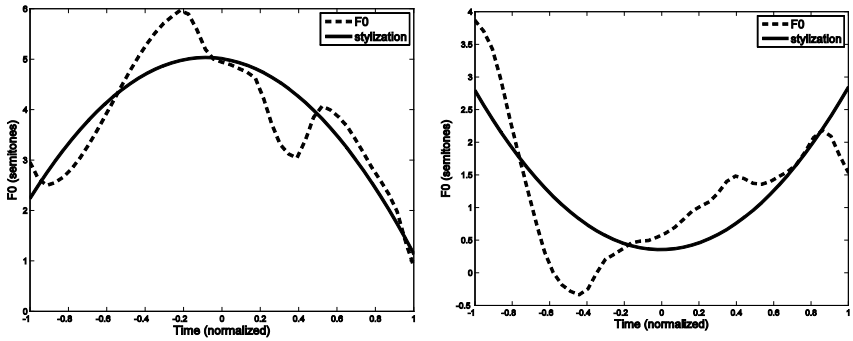


Figure 1 Examples of interpolated and normalized Fo contour (dashed line) together with the 2<sup>nd</sup> order polynomial stylization (solid line) for Slovak (left) and Hungarian (right).

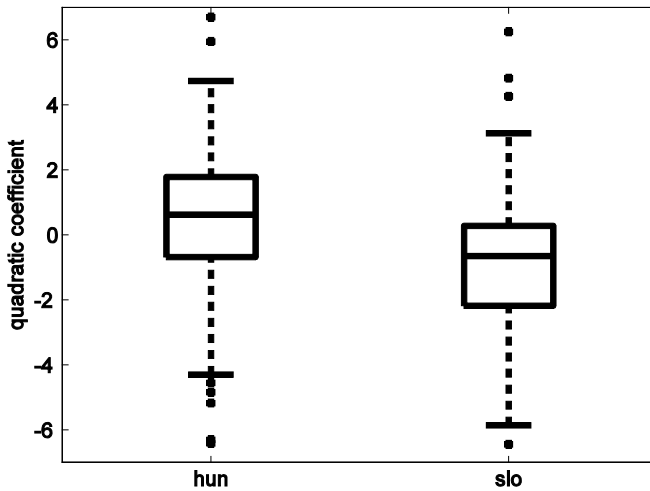


Figure 2 Boxplots showing quadratic coefficients for the Hungarian (left) and Slovak (right).

## References

- Jun, Sun-Ah (Ed). 2005. *Prosodic typology*. Oxford: Oxford University Press.
- Jun, Sun-Ah and Janet Fletcher. 2014. Methodology of studying intonation: From data collection to data analysis. In *Prosodic Typology II: The new development in the phonology of intonation and phrasing*. Oxford: Oxford University Press.
- Mády, Katalin, Reichel, Uwe D. and Beňuš, Štefan. 2013. Accentual phrase in languages with fixed word stress: a study on Hungarian and Slovak. *Proc. Workshop Advancing Prosodic Transcription for Spoken Language Science and Technology II, Phonetics and Phonology in Iberia, Lisbon, 2013*.

## Lolita Bérard and José Deulofeu

Laboratoire LaTTiCe & Université Paris 3, Laboratoire LIF & Université de Provence  
lolita.berard@gmail.com ; jose.deulofeu@gmail.com

### On the limit between relative and “consecutive clauses”: the case of [NP Det [-def] N que X] construct in spoken French: a corpus based analysis.

We consider utterances like the following taken from spoken French corpora, in which an indefinite NP is associated with a large range of constructs introduced by the complementizer *que*:

(1) *c'est des endroits que tu peux pas y aller* (C-oral-Rom)

these are places where you cannot go there

(2) *il y a deux sortes d'ouvriers il y en a que tu leur parles ils comprennent de suite et il y en a que bon au début ils sont pas d'accord avec toi mais il faut leur expliquer ils comprennent après quand même* (Corpaix)

'There are two kinds of workers there are someones that (when) you discuss with them they understand immediately and there some (others) that well first they don't agree with you but you need to explain the things to them they understand nevertheless at the end'

Our presentation addresses the syntactic status of these utterances. The traditional analysis for (1) and (2) is to posit a non standard type of relative clause based on *que* as a complementizer and *y, leur, ils* as resumptive clitic pronouns (Guiraud 1966), which is considered for French as an alternative strategy of the standard wh- relatives (*des endroits où tu peux pas aller*). Abeillé & Godard (2006) observe that this analysis cannot be extended to (3) where no resumptive pronoun appears:

(3) *il y a des feux qu'il faut appeler des pompiers tout de suite* (Corpaix)

there are fires that it is necessary to call the firemen immediately



They propose a unified analysis for examples (1) to (3) in which *que* introduces a plain IP modifying the head Noun. To this syntactic structure is associated a pragmatic interpretive rule Topic-Comment, explaining that the content of the modifying clause conveys a characteristic property of the head. However, this analysis does not fit with the examples of this pattern found by manual search from the sampled C-Oral-Rom Corpus (300000 words) of spoken French. In all the 10 occurrences found, the determiner is always indefinite, whereas not such a restriction is observed in *wh*-relative clauses. Moreover, whereas examples with definite determiners quoted in the literature (Guiraud 1966, Gapany 2004): *l'homme qu'il a dit ça* (the man who said that) are strongly sociolinguistically marked (Gadet 2003, Godard 1989), some of our examples are from educated speakers in casual conversation. One way to take these facts in account would be to analyze these constructs as instances of non standard consecutive clauses. In the standard corresponding consecutive clauses: the *que*-clause is governed by an N with indefinite determiner and licensed by a quantifier adjective (*tel* = such) in (3'):

(3') il y a des feux tels qu'il faut appeler les pompiers tout de suite  
 there are fires such that it is necessary to call the firemen immediately

We propose that the “consecutive” clause is licensed by a [+ quality] underspecified feature. This feature is borne by the quantifier in the standard construct and by the indefinite determiner in the non standard one. In both constructs the *que*-clause is « niece licensed », which is not the case for a relative clause. The semantic interpretation is straightforward: the *que*-clause does not directly convey, as proposed by Abeillé & Godard, a characteristic property of the head, better it brings a fact or a situation on the basis of which this property can be inferred. The “consecutive” clause helps specifying the underspecified [+quality] feature. Additionally, we do not need the extra Topic-comment interpretive rule.

A further consequence of this analysis is that there are no instances of relative clauses with resumptive pronoun in contemporaneous spoken French. Examples like (3') are to be considered as mere archaisms. We propose to check this hypothesis based on a restricted corpus on a larger corpus: the 3M words spoken section of the Orfeo under construction corpus.

## References

- Abeillé, A., Godard D., 2006, « Les relatives sans pronom relatif », In Abecassis Michaël, Ayosso Laure et Vialleton Elodie, ed., 2006, *Le français parlé au 21 ème siècle : Normes et variations géographiques et sociales*, Paris : L'Harmattan, p. 26-46
- Cresti E., Moneglia M., 2005, *C-OralROM, Integrated Corpus of Spoken Romance Languages*, Amsterdam, John Benjamins

- Gadet F, 2003. « La relative française, difficile et complexe » in *Grammaticalisation et réanalyse*, S. Kriegel (ed), Editions du CNRS, Paris, 251-68.
- Gapany, J. 2004. *Formes et fonctions des relatives*, P. Lang, Berne.
- Godard, D. 1989. Français standard et non standard : les relatives, LINX, 20, 51-88.
- Guiraud P 1966. le système du relatif en français populaire, Langages, 3, pp. 40-48.
- ORFEO: [http:// www.projet-orfeo.fr/](http://www.projet-orfeo.fr/)

## Theresa Biberauer

University of Cambridge & Stellenbosch University  
mtb23@cam.ac.uk

### **Towards a theory of syntactic categories: an emergentist generative perspective**

In current generative theory, universal linguistic categories are not a given. This paper aims to explicate this, to offer two case studies illustrating what emerges from a generative research-programme eschewing universally-given categories, and to consider how much convergence we might expect between this kind of programme and non-universalist approaches.

Chomsky (2001:10) proposes a prespecified inventory of formal features/[F] from which acquirers make a one-time selection to establish their languages' syntactically active features. Given that the choice for/against [F]-selection creates featurally non-identical feature-bundles, the possibility of cross-linguistic category-differences arises. Which features are most/least likely to be selected and how – a theory of the [F]s defining natural-language systems – remains unclear, however. Here we depart from the [F]-prespecification assumption, proposing, instead, that the key substantive featural directive acquirers begin with is that the input requires parsing not just in terms of phonological/[P] and semantic/[S] features, but also in terms of [Fs], which allow the computational system to operate with lexical items in the category-based way observed in human languages. As there is, by hypothesis, no inventory of [F]s to map the input onto, the child must exploit (i) **cues in the input**, notably, multiple exponence/"doubling", movement, and various kinds of systematic "silence", in combination with (ii) **learning biases**, notably, Input Generalisation (Roberts 2007) and Feature Economy (Roberts & Roussou 2003), which drive the child to make maximal use of minimal [F]s. As languages demonstrably do not all grammaticalise the same features, it is expected, on this emergentist generative approach, that categorial inventories will vary crosslinguistically. Further, we can probe the limits of this variation and thus potentially derive insight into the

question of what “basic” [F]s and thus what types of syntactic categories natural-language systems require to be acquirable and usable. Maintaining the minimalist assumption that syntactic (and possibly other; see Halle & Marantz 1993, Nevins 2010) structure is constructed via the [F]-sensitive operations merge and agree, certain system-types are excluded *a priori*: these include those entirely devoid of [F]s; those lacking a “basic” distinction allowing “spine” elements (e.g. verbal elements associated with the clausal spine) to combine with “satellite” elements (e.g. subjects, objects, certain adverbials) – the universality of some form of ‘verb’/‘noun’ distinction is thus arguably expected, but its surface manifestations and formal character may vary greatly; and those containing [F]s not independently responsible for some instance of doubling, movement or “silence”. We also briefly consider this approach’s importance for the initial input (*intake*), and its role in determining the limits of crosslinguistic categorial variation.

Two case studies are presented to illustrate the predictions of the proposed approach. Firstly, I show how variation in negation input leads acquirers to different conclusions as to the status of negation as an [F] in different systems, and how both well-established and less familiar typological facts emerge from this. Secondly, building on Wiltchko (2008), I show how the approach predicts substantial crosslinguistic variation regarding the encoding of Number, and also why diachronic changes affecting Number-realization take the form they do. I conclude by pointing to the parallels between (i) the feature-acquisition mechanism proposed here and the typology of system types that it predicts, (ii) a version of Dresher’s (2009, 2013) phonological feature-acquisition procedure, and (iii) Jaspers’ (2009 *et seq.*) work on a fundamental colour-logic homology which, he argues, reflects a universally applicable Concept Formation Constraint (cf. Jaspers 2013). All of (i-iii) involve the same, input-guided successive division mechanism. This, I contend, is precisely what we would expect to see if, as Chomsky (2005) argues, UG is minimally specified, with non-domain-specific cognitive optimisation principles playing a key role in determining how (individual) language systems are structured. Importantly, the approach assumes a key role for UG, which provides the formal-feature [F] template that underpins the substantive [F]-systems in terms of which natural languages are structured. The present proposal therefore makes very specific, distinctly generative predictions about the form we would expect (lexically specified) syntactic variation to take and also about what limits it should be subject to.

## References

- Chomsky, Noam. 2001. “Derivation by phase.” In *Ken Hale: a life in language*, edited by Michael Kenstowicz, 1-52. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2005. “Three factors in language design.” *Linguistic Inquiry* 36:1-22

- Dresher, Elan. 2009. *The Contrastive Hierarchy in Phonology*. Cambridge: Cambridge University Press.
- Dresher, Elan. 2013. "The arch not the stones: universal feature theory without universal features". Paper presented at the Conference on Feature in Phonology, Morphology, Syntax and Semantics: what are they?" (CASTL, Tromsø)
- Halle, Morris & Alec Marantz. 1993. "Distributed Morphology and the Pieces of Inflection." In *The view from Building 20: essays in Linguistics in honor of Sylvain Bromberger*, edited by Ken Hale and Samuel J. Keyser, 111-176. Cambridge, MA: MIT Press.
- Jaspers, Dany. 2009. "The Language of Science and the Science of Language. On Natural Words and Nonnatural Terminology." In *Business & language. Essays in honour of Wilfried Janssens*, edited by Dany Jaspers and Philip Vermoortel, 567-594. Leuven: Peeters.
- Jaspers, Dany. 2013. "Constraints on Concept Formation." Poster presented at the 39<sup>th</sup> GLOW Colloquium (Lund).
- Nevins, Andrew. 2010. *Locality in vowel harmony*. Cambridge, MA: MIT Press.
- Roberts, Ian. 2007. *Diachronic syntax*. Oxford: OUP.
- Roberts, Ian and Anna Roussou. 2003. *Syntactic change. A minimalist approach to grammaticalisation*. Cambridge: CUP.
- Wiltschko, Martina. 2008. "The syntax of non-inflectional plural marking." *Natural Language and Linguistic Theory* 26(3): 639-694.

Theresa Biberauer<sup>1,2</sup> and Ian Roberts<sup>1</sup>

University of Cambridge<sup>1</sup> and Stellenbosch University<sup>2</sup>  
mtb23@cam.ac.uk; igr20@cam.ac.uk

## Conditional Inversion and Types of Parametric Change

Biberauer & Roberts (2012) propose the parametric taxonomy below:

- (1) For a given value  $v_i$  of a parametrically variant feature [F]:
- a. **Macroparameters:** all functional heads of the relevant type share  $v_i$ ;
  - b. **Mesoparameters:** all functional heads of a given naturally definable class, e.g. [+V], share  $v_i$ ;
  - c. **Microparameters:** a small sub-class of functional heads (e.g. modals) shows  $v_i$ ;
  - d. **Nanoparameters:** one/more individual lexical items has  $v_i$ ;

If parametric change involves acquisition-mediated reanalysis of Primary Linguistic Data/PLD, macroparameters will be set "easily", hence resisting reanalysis and being strongly conserved; meso- and microparameters are correspondingly less salient in the PLD, hence less reanalysis-resistant and less strongly conserved. Nanoparameters are, in principle, still less reanalysis-resistant and thus more unstable, *modulo* frequency effects.

Here we document a case of change from meso→micro→nano involving Conditional Inversion/CI in the history of English. We show that the central component of CI has remained unchanged since Old English/OE, in that it involves T-to-C movement where C has a feature marking the clause Irr(ealis) (e.g. *swelte ic, libbe ic* “die I, live I”=“if I live or die”). In OE, CI was part of a family of operations raising inflected verbs into the C-system (Verb-Second/V2). This feature is general to all root and some embedded Cs and holds across Germanic, making it a good candidate for a mesoparameter.

What has changed since OE is the range of elements undergoing CI, and how CI relates to other forms of inversion. The loss of V2 is usually dated to the 15<sup>th</sup>C, but various forms of “residual V2” in marked clause-types survived, e.g. Interrogative Inversion/II and CI. The shift from full to residual V2 is a shift from meso→micro: the class of T-attracting Cs contracts. In Early Modern, lexical V-to-T movement was lost. Thereafter, only auxiliaries undergo CI, as in interrogative and other kinds of inversion. The residual V2→subject-aux inversion shift further restricts the items undergoing inversion, although the T-to-C trigger is unchanged. What changed here is a T-feature, from a meso – all verbs – to a micro – auxiliaries only – value. The most interesting change affecting CI is recent, though: from the 17<sup>th</sup>-19<sup>th</sup>C, CI was no different to other inversions, featuring with all auxiliaries, including “dummy” *do*. From ca.1850, CI became restricted to *had*, *should* and, more marginally, *were*. This looks like a nanoparameter, as it affects one modal, and specific forms of *have* and *be*. Meanwhile, II has remained productive for all auxiliaries. Optative inversion, however, was first limited to *may*, before becoming formulaic (*May you rot!* but *\*May you eat!*).

We give a formal analysis of the facts, and conclude by considering how an emergentist (1)-style parametric taxonomy allows us to understand how systems may become gradually more marked, requiring ever more specific triggers for operations, until a feature(class) ceases to act as a trigger, and the system radically simplifies. Unlike many minimalist approaches to diachronic change, then, ours does not predict that change will always lead to simplification or that change will be uniformly simplifying or complexifying.

## References

- Biberauer, Theresa and Ian Roberts. 2012. “Towards a parameter hierarchy for auxiliaries: diachronic considerations.” In *Cambridge Occasional Papers in Linguistics 6*, edited by James Chancharu, Freddy Hu and Moreno Mitrović, 209-236.

## Veronika Bláhová and Filip Smolík

Institute of Psychology, Academy of Sciences of the Czech Republic  
blahova@praha.psu.cas.cz, smolik@praha.psu.cas.cz

### Early comprehension of verb number morphemes in Czech: evidence for a pragmatic account

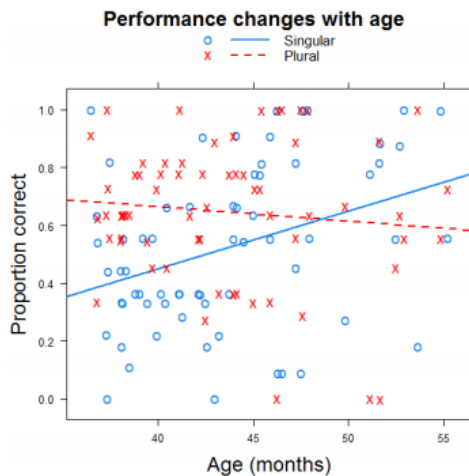
Existing research on the acquisition of number agreement suggested that children in some languages have problems comprehending the number forms of verbs (Pérez-Leroux, 2005; Johnson, de Villiers, & Seymour, 2005). These studies also suggested that depending on the language, the singular or the plural form may be easier to comprehend for young children. In contrast, newer studies found evidence for early comprehension of plural verb forms (Legendre, Barriere, Goyet, & Nazzi, 2010; Brandt-Kobele & Höhle, 2010). It could be expected that children will acquire the comprehension of verb number earlier in languages with rich verb inflection (Spanish, German), and later in languages with reduced range of verb forms (English, French), but the research findings do not conform to this pattern. However, research in languages with rich verbal morphology is relatively limited. To address these limitations, we executed a study of verb form comprehension in Czech, a pro-drop language with rich verb inflection. The goal was to test whether young children understand verb number morphology, and whether there are differences between singular and plural form comprehension. The design included control sentences with subject or object nouns inflected for number, to compare comprehension based on verb and noun number morphemes.

The study examined 72 monolingual Czech-speaking children aged 3;0 to 4;7. In a picture-pointing task, 20 items were presented. Items consisted of a sentence and a pair of pictures that differed in the number of participants/objects involved in the action. In ten items, the subject was omitted and the only cue for the interpretation was the number inflection on the verb. Five items contained a transitive verb, five an intransitive one. Of the remaining items, five items included a lexical subject, and five items contrasted the singular or plural object instead of subject.

Likelihood of correct response was examined using binomial mixed models as a function of children's age, grammatical number of the target sentence, and the sentence type. No significant effect of sentence type was observed, but there was a significant interaction between age and verb number. The comprehension of plural sentences was above chance from the earliest age observed. In singular sentences,

children initially showed performance below chance level, but this clearly improved with age and the success rate was above 80% for children at after the age of 4;6.

The findings suggest that limitations in verb number comprehension are related to developments in pragmatic understanding. Since singular sentences might refer to one participant in a multi-actor picture, the choice of the single-actor picture is not based purely on grammatical understanding, but on the pragmatic interpretation of the task (“point to the more appropriate picture of two possible ones”). This may explain the initially weak performance in singular trials. The absence of differences between sentence types shows that any problems in number comprehension are not limited to verbs, which is also consistent with the pragmatic interpretation.



**Figure 2: Proportion correct in each condition, along with the regression lines for each condition.**

## References

Brandt-Kobele, O.-C., & Höhle, B. (2010). What asymmetries within comprehension reveal about asymmetries between comprehension and production: The case of verb inflection in language acquisition. *Lingua*, 120, 1910–1925.

- Johnson, V., de Villiers, J., & Seymour, H. (2005). Agreement without understanding? The case of third person singular /s/. *First Language*, 25 , 317–330.
- Legendre, G., Barriere, I., Goyet, L., & Nazzi, T. (2010). Comprehension of infrequent subject-verb agreement forms: Evidence from French-learning children. *Child Development*, 81 , 1859–1875.
- Pérez-Leroux, A. T. (2005). Number problems in children. In C. Gurski (Ed.), *Proceedings of the 2005 Canadian linguistic association annual conference*. (Available online at <http://ling.uwo.ca/publications/CLA-ACL/CLA-ACL2005.htm>)

## Anna Bondaruk

John Paul II Catholic University of Lublin, Poland  
bondaruk@kul.lublin.pl

### Three types of predicational clauses in Polish and constrains on their use

The paper addresses the question of why Polish employs three distinct types of predicational clauses (cf. Higgins 1979). It is argued that there is no redundancy in the Polish system of copular clauses, but its rich inventory of predicational clauses follows from the meaning differences, and a syntactic constraint attested in one of the three types.

The sentences to be analysed here comprise two types with the verbal copula *być* ‘to be’, followed either by the nominal predicate in the instrumental, as in (1) below, or by the nominative nominal predicate, as in (2).

(1) Marek     jest     szefem.  
Mark-nom. COP   boss-instr.  
‘Mark is a boss.’

(2) Ja           jestem   szef.  
I-nom.       COP   boss-nom.  
‘I am a boss.’

The third type of predicational clauses attested in Polish exhibits the pronominal copula *to*, with or without the verb *być* ‘to be’, followed by a nominal predicate in the nominative, as shown in (3).

(3) Marek       to (jest)   dobry   szef.  
Mark-nom.   COP   is       good   boss-nom.  
‘Mark is a good boss.’

It is argued that *być* + DP<sub>nom</sub> and *to* + DP<sub>nom</sub> sentences pattern together as regards the tests proposed by Roy (2006, 2013) for languages other than Polish. When subjected to Roy’s tests, these two types of clauses turn out to represent a defining class of predicational clauses, as they exhibit lifetime effects, cannot serve



as small clause complements of lexical verbs, cannot be used with the perfective or imperfective form of the verb *być* 'to be', do entail the actual practice of a given activity, cannot be temporally restricted, and are infelicitous with stage level nominals. The remaining third type, sentences with *być* + DP<sub>instr</sub>, show the opposite behaviour, and hence can be classified as characterising predicational clauses within Roy's (2006) model. The distinction between defining and characterising predicational clauses is reflected in Polish in the presence of two formally distinct classes of copular clauses.

Another problem is why Polish has two formally distinct types of defining clauses, i.e. those with *być* + DP<sub>nom</sub> and *to* + DP<sub>nom</sub>. The answer to this question lies in the restriction found in the class of predicational copular clauses with the pronominal copula *to*, namely clauses of this type resist 1<sup>st</sup> and 2<sup>nd</sup> person subjects; a restriction reminiscent of the Person-Case Constraint (PCC) of Bonet (1991). No such restriction operates in *być* + DP<sub>nom</sub> sentences, but on the contrary, they are most felicitous with those subjects that are banned in *to* + DP<sub>nom</sub> clauses. The hypothesis entertained here is that *być* + DP<sub>nom</sub> sentences are used to avoid the violations of the PCC found in *to* + DP<sub>nom</sub>, which explains why Polish needs two separate types to convey a defining meaning.

## References

- Bonet, Eulàlia. 1991. Morphology after syntax: Pronominal clitics in Romance. Ph.D. diss., Cambridge, MA, MIT.
- Higgins, Roger. 1979. *The pseudo-cleft construction in English*. New York: Garland.
- Roy, Isabelle A. 2006. Non-verbal predications: A syntactic analysis of predicational copular sentences. Ph.D. diss., Los Angeles, University of Southern California.
- Roy, Isabelle A. 2013. *Non-verbal predication. Copular sentences at the syntax-semantics interface*. Oxford: Oxford University Press.

## Karolina Broś

University of Warsaw, Poland  
k.bros@uw.edu.pl

## Polish voicing assimilation at the phonetics-phonology interface

An abundant set of cross-linguistic data confirm the observation that a distinction should be made between word and phrase phonology on the one hand, and between the different advancement stages/domains in which phonological processes apply. In

a holistic perspective phonology points to an ascending trend from the lowest (broadest) to the highest (narrowest) domains – as rightly captured by the concept of the life cycle of phonological processes (Bermúdez-Otero 2007). Thus, processes involving opacity can be explained in terms of domain narrowing, e.g. the differences between Spanish dialects, from phrase level *s* debuccalisation only, through word-level preconsonantal and opaque prevocalic, to the deletion/debuccalisation conspiracy with complete *s* loss phrase-finally and debuccalisation word-finally in Chilean (Lipski 1996, Broś 2012). Similar cyclic patterns can be observed in the distribution of English linking *r* and dark *l* (Bermúdez-Otero 2011, Turton 2012), as well as Catalan and Quito Spanish (e.g. Colina 2009, Strycharczuk 2012).

In Slavic languages, Polish distinguishes between two dialectal behaviours, one of which involves presonorant assimilation across word boundaries. The Poznań/Kraków dialect presents not only voice assimilation (VA) and final devoicing (FD), but also admits voicing before all sonorants, except word-medially. This is complicated by the specific restrictions on syllabification, with onset maximisation and SSG suspension that result in syllabifying CC and CCN clusters in the onset (*ja.sny* 'bright', *gwie.zdny* 'stellar', *ża.bki* 'frogs', *pro.sty* 'straight'). This makes traditional accounts of VA implausible in terms of determining directionality (saving onset voice at the expense of the coda), as noted by Rubach (2008), cf. Lombardi (1999). A string-based faithfulness account solves the question of agreement in clusters, but fails to account for the unexpected behaviour of word-final obstruents in Kraków. Traditional pre-OT accounts (Gussman 1992, Rubach 1996) rely on autosegmental delinking cum spreading which requires that word-final obstruents be distinguished from word-medial by the prior application of FD (underspecification). This is incompatible with the results of the latest studies in voicing oppositions and the life cycle. As noted by Strycharczuk (2012), Kraków/Poznań voicing data suggest that FD is a phrase-final process: full neutralisation in voicing can only be observed prepausally. In all other cases final obstruents share the voicing specification with the following sound. Thus we have *bra[t]* 'brother', *bra[da]dama* 'Adam's brother', *bra[dm]agdy* 'Magda's brother', *bra[tk]asi* 'Kasia's brother' and *bra[dg]osi* 'Gosia's brother'. Given the lack of resyllabification in Polish, the last segment in *brat* invariably stands in the coda, unlike word-medial presonorant obstruents: *ja.sny* 'bright', *za.zna* 'will experience'.

I will argue that Kraków Polish has no FD in the traditional sense. Laryngeal contrast can be observed word-medially (purportedly due to syllabification restrictions), albeit with obligatory cluster homogeneity: *pstry* 'colourful', *bzdura* 'nonsense', *gwiazda* 'star', *miasto* 'town'. General markedness of laryngeal features in obstruents is the driver of both neutralisation across a word boundary (with full laryngeal agreement before obstruents and sonorants alike) and pre-pausal devoicing

interpreted as delaryngealisation. This is presented in a Stratal OT framework where \*LAR and AGREE constraints conspire at the phrase level, avoiding unmotivated Duke-of-York effects and stipulative constraint formulations. The resultant underspecification would then be interpreted as the default value (voicelessness) by the phonetics component of the grammar, giving rise to 'emergence of the unmarked' in the post-phonological component. This perfectly captures the phonetics-phonology interface and phonetic feeding into the phonological component (rule stabilisation and domain narrowing as per the life cycle), especially given the latest insight into the passive/active voicing mechanisms in sound production and perception (Jansen 2004, Blevins 2004) whereby FD can be attributed to the lack of a voicing target on the right.

The fact that underlying voiced obstruents are more prone to voicing than their voiceless counterparts (Strycharczuk) provides further support for the assumption that there is no FD at the word level in Kraków, although interspeaker variation and optionality might suggest a move in the direction of domain narrowing. Thus, the contrast between Kraków and Warsaw Polish can be interpreted as a difference in the domain application of FD which ascends to the word-level in Warsaw, superseded only by obstruent cluster agreement.

## Elena Castroviejo and Berit Gehrke

ILLA, CCHS-CSIC, Spain; CNRS-LLF / Paris Diderot  
elena.castroviejo@cchs.csic.es; erdbeerita@gmail.com

### Manner-in-disguise vs. degree WELL

It has been noted that the adverb *well* (and its counterparts in other languages; henceforth *well*) can function as a manner modifier, (1-a), and as a degree modifier, (1-b).

(1) a. He has written the article **well**. b. They are **well** acquainted.

While the manner reading seems to be uniformly available, we argue that what has been identified as degree WELL in the literature (e.g. Kennedy and McNally, 2005) does not correspond to a uniform phenomenon; rather, we have 'manner-in-disguise' WELL ((1-b)) and 'true degree' WELL, which is absent in English but present in Catalan. We propose that the latter expresses the speaker's approval of how ADJ is applied to *x*.

Whereas the examples to illustrate the degree reading of WELL generally involve participles, as in (1-c) (e.g. Bolinger, 1972; Kennedy and McNally, 2005), it does not seem to be possible to use *well* as a degree modifier of genuine adjectives

(e.g. \**the train is well blue/long/beautiful*). In contrast, in Catalan, this is possible, (2).

(2) El tren és ben blau / llarg / bonic. 'The train is pretty blue / long / beautiful.'  
the train is well blue long beautiful

This suggests that English WELL is exclusively a VP modifier (of eventualities), whereas in Catalan it can be used as an AP modifier (of adjectives or degrees), on a par with other degree modifiers such as *very*, *rather* (cp. Engl. translation of (2)).

There are further reasons to believe that the two are not the same. Kennedy and McNally (2005) point out that the 'degree' reading only comes about with participles associated with scales that are closed on both ends, evidenced by their compatibility with *partially* or *fully*:

(3) a. The truck is well / partially / fully loaded.  
b. ??Marge was well / partially / fully worried when she saw the flying pig.

True degree WELL can also combine with open scale As:

(4) ben a prop 'well close', ben amunt 'well up', ben sonat 'well nuts', ben simpàtic 'well kind', ben trist 'well sad', ben viu 'well alive', ben idiota 'well idiotic'

True degree WELL, in turn, has the following properties: It cannot be modified by other degree modifiers (5-a) (unlike well, cf. Kennedy and McNally, 2005), occur under negation, (5-b), or be questioned, (5-c) (cf. González-Rodríguez, 2006; Hernanz, 2010, for Spanish).

(5) a. En Pere és (\*molt) ben simpàtic.  
the Peter is very well nice

b. \*En Pere no és ben simpàtic.  
the Peter not is well nice

c. \*En Pere és ben simpàtic?  
the Peter is well nice

Finally, Catalan degree WELL cannot be the answer to the question *Com és x?* 'How is x?', but is only felicitous when it is under discussion whether or not *x* is ADJ.

We assume that the adverb WELL has the same general lexical semantics as the underlying adjective GOOD (approval by some judge for something), and we follow the standard treatment of manner modifiers as predicates of event (VP modifiers); this extends to **manner-in-disguise**. The impression of a degree reading comes about under restricted conditions, when the event structure provides a result state associated with a closed scale that is not associated with a maximum standard (cf. McNally and Kennedy, 2013). **True degree** WELL shares the lexical semantics of *good*, here predicated of a property ascription, to signal that the speaker believes that *x* is a clear member of the set denoted by POS-ADJ; it follows that *x* holds ADJ-ness to a high degree. The reason why true degree WELL is incompatible with negation and questioning has to do with a more general characteristic of degree

modifiers under negation, e.g. *not very* ADJ is equivalent to *rather un-*ADJ (cf. Bolinger, 1972). With degree well, two contents are conveyed, but negation cannot target the metalinguistic one (only the high degree entailment), leading to incongruence (e.g. (5-b) would be equivalent to ‘Rather un-nice(p) & nice(p) is a good property ascription’). Finally, discourse restrictions follow from the fact that emphasis – translated here as the metalinguistic move of evaluating a property ascription – is only contextually motivated when such an ascription is challenged.

### References

- Bolinger, D. (1972). *Degree Words*. Mouton3, The Hague.
- González-Rivera, M. and Gutiérrez-Rexach, J. (2012). On the syntax and semantics of extreme degree modifiers in Puerto Rican Spanish. Talk at LSRL 42, Southern Utah University.
- González-Rodríguez, R. (2006). Negación y cuantificación de grado. In Villayandre, M., editor, *Actas del XXXV Simposio Internacional de la Sociedad Española de Lingüística*, pages 853–871. Universidad de León.
- Hernanz, M. L. (2010). Assertive ‘bien’ in Spanish and the left periphery. In Beninca, P. and Munaro, N., editors, *Mapping the Left Periphery. The Cartography of Syntactic Structures*, volume 5 of Oxford Studies in Comparative Syntax, pages 19–62. Oxford University Press.
- Kennedy, C. and McNally, L. (2005). Scale structure, degree modification, and the semantics of gradable predicates. *Language*, pages 345–381.
- McNally, L. and Kennedy, C. (2013). Degree vs. manner *well*: A case study in selective binding. In Pustejovsky, J., Bouillon, P., Isahara, H., Kanzaki, K., and Lee, C., editors, *Advances in Generative Lexicon Theory*, Text, Speech and Language Technology, vol. 46, pages 247–262. Springer, Dordrecht.
- Morzycki, M. (in preparation). *Modification*. Cambridge University Press, Cambridge.

## Bożena Cetnarowska

University of Silesia, Katowice, Poland

cetnarow@gmail.com; bozena.cetnarowska@us.edu.pl

### On the (lack of) referentiality of Polish relational adjectives

Denominal relational adjectives (RAs), such as *presidential* ‘relating to a/the president’, are often treated crosslinguistically as “pseudo-adjectives” (cf. Levi 1976) since they exhibit a number of noun-like properties. Among others, thematic RAs function like arguments in derived nominals (cf. Giorgi and Longobardi 1991 on Italian RAs, Bosque and Picallo 1996 on Spanish RAs). Moreover, coordination of RAs

resembles that of nouns (see Bosque and Picallo 1996 for Spanish data). Evidence of this sort has been employed by proponents of Distributed Morphology (DM), as in Fábregas (2007), and Alexiadou and Stavrou (2011), to argue that RAs have nouns (nP projections) visible in their syntactic representations.

The present paper shows that - also in Polish - relational adjectives resemble nouns in their semantico-syntactic behaviour, which provides support for the DM claim that RAs enter their syntactic derivation as nouns. The meanings of Polish thematic RAs are parallel to those of verbs' arguments, cf. *atak terrorystyczny na turystów* (lit. attack terrorist.RA on tourists.Acc) 'terrorist attack on tourists' and *Terrorystyci atakują turystów* 'Terrorists attack tourists'. When coordinated, Polish RAs exhibit collective or distributive readings, as in the phrases *kontrole ministerialne i parlamentarne* (controls ministerial.Pl and parliamentary.Pl) 'ministerial and parliamentary controls', and *wyprawy francuska i włoska* (expeditions French.Sg and Italian.Sg) 'the expeditions: the French one and the Italian one'.

The hypothesis that RAs are dominated by nominal projections in their syntactic representation predicts that the nominal bases of RAs should be able to act as antecedents for anaphoric elements. This prediction is not borne out by sentences and phrases where Polish RAs fail to bind reflexive possessive pronouns and personal pronouns, as in (1):

- (1) a. \**nauczycielska<sub>i</sub> pensja za swoje<sub>i</sub> długoterminową pracę*  
 teacher<sub>i</sub>.RA salary for self<sub>i</sub>'s long-term work  
 'teacher<sub>i</sub>'s salary for his<sub>i</sub>/her<sub>i</sub> long-term work'  
 b. \**Nie kupuj butów sportowych<sub>i</sub>, skoro go<sub>i</sub> nie lubisz.*  
 'Don't buy sports<sub>i</sub> shoes if you don't like it<sub>i</sub> (i.e. if you don't like sport)'.

A possible explanation for such data is the treatment of denominal adjectives as anaphoric islands (Postal 1969). However, the examples in (1) can be contrasted with more felicitous cases of outbound anaphora in (2).

- (2) a. *nauczycielskie<sub>k</sub> protesty w obronie swoich<sub>k</sub> miejsc pracy*  
 teacher<sub>k</sub>.RA protests in defence self<sub>k</sub>'s places.Gen work.Gen  
 'teachers<sub>k</sub>' protests in defence of their<sub>k</sub> workplaces'  
 b. *Które preparaty magnezowe<sub>i</sub> zawierają największą jego<sub>i</sub> dawkę?*  
 which preparations magnesium<sub>i</sub>.RA contain greatest its<sub>i</sub> highest dose  
 'Which magnesium<sub>i</sub> supplements contain its<sub>i</sub> highest dose?'

The ability to bind reflexive possessive pronouns is sensitive to the distinction between non-thematic and thematic RAs (1a vs. 2a). Moreover, the acceptability judgments can be influenced by semantic and pragmatic factors, one of them being semantic transparency of relational adjectives (see Ward, Sproat and McKoon 1991).

## References

- Alexiadou, Artemis, and Melita Stavrou. 2011. "Ethnic Adjectives as Pseudo-Adjectives: A Case Study in Syntax-Morphology Interaction and the Structure of DP." *Studia Linguistica* 65 (2): 117–146.
- Bosque, Ignacio, and Carme Picallo. 1996. "Postnominal Adjectives in Spanish DPs." *Journal of Linguistics* 32: 349–385.
- Fábregas, Antonio. 2007. "The Internal Syntactic Structure of Relational Adjectives." *Probus* 19 (1): 135–170.
- Giorgi, Alessandra, and Giuseppe Longobardi. 1991. *The Syntax of Noun Phrases*. Cambridge: Cambridge University Press.
- Levi, Judith N. 1976. *The Syntax and Semantics of Nonpredicating Adjectives in English*. Bloomington: Indiana University Linguistics Club.
- Postal, Paul. 1969. "Anaphoric Islands." *Chicago Linguistic Society* 5: 205–239.
- Ward, Gregory, Richard Sproat, and Gail McKoon. 1991. "A Pragmatic Analysis of So-Called Anaphoric Islands." *Language* 67(3): 439–474.

## Julia An-Lun Cheng and Lu Lu

School of Oriental and African Studies, University of London, Great Britain  
570441@soas.ac.uk, lu\_lu@soas.ac.uk

## Reference Tracking Function of Chinese Nominal Classifiers

Classifier, a word or morpheme that is used to accompany nouns, can be employed to classify the noun according to the type of its referent in some East Asian languages (Greenburg 1977; Bisang 1999; Zhang 2007). Similar to the grammatical genders in most Indo-European languages, Chinese nominal classifiers divide nouns into different classes with each classifier often associated with a particular type of nouns; for example, *zhī* is associated with non-human animate nouns such as insects, animals or birds (*yì zhī mǎ-yǐ* 'one ant', *yì zhī lǎo-yīng* 'one hawk') and *tiáo* is associated with nouns with the inherent shape of being thin, long or cylindrical (*yì tiáo shéng-zi* 'one rope', *yì tiáo pí dài* 'one belt'). Though many studies explored classifier from cognitive and syntactic perspectives (Huang & Ahrens 2003; Li 2013), limited research has been conducted concerning its role in reference tracking. This paper thus attempts to explore the reference function of classifiers by examining valid cases from the well-balanced Chinese corpus TORCH 2009. It proposes that the nominal classifiers in Mandarin Chinese have the semantic function of long reference tracking. Unlike grammatical genders which can only divide nouns into two or three classes, Chinese nominal classifiers divide nouns into much greater number of

classes which allow far more nominal categories to be represented in the reference system and enable a classifier to refer back to a very distant noun, or evoke an unspecified referent, and in some cases anticipate a noun which has not been previously mentioned in the text.

The corpus used for this study comes from the fiction section of TORCH 2009 which includes texts written in the following registers: general, mystery, science, adventure, romance, and humor. The total word count amounts to 282,345. In the corpus, five instances of a classifier referring back to a remote antecedent have been found. Among them the longest coreference stretches over thirteen nouns. Nine instances have been found in which the classifier either evokes a different referent entails in the associated noun or a non-mentioned noun. Nouns such as ‘affection’, ‘reason’ and ‘people’ have been evoked through their associated classifier instead of being specified in the text. There is one interesting sentence where the classifier *céng* (for ‘layer’) referring to ‘surface skin layer’ is used to evoke a metaphorical meaning of ‘a person’s inner layer of character’. In two instances the classifier is used as a device to anticipate a subsequent noun; in one case, the subsequent noun comes immediately after the classifier but in the other, the noun only makes its appearance after two consecutive clauses.

This paper shows that Chinese classifiers do not merely reflect the semantic features of the head noun; their association with many noun categories offers possibilities for different types of reference tracking. The findings significantly demonstrate that Chinese classifiers have a much broader pragmatic function than previously expected.

## References

- Bisang, W. 1999 “Grammaticalization and the areal factor – the perspective of East and mainland Southeast Asian languages”. In *Proceedings of New Reflections on Grammaticalization*, edited by Lopez-Couso, Maria Jose and Elena
- Greenberg, Joseph. 1972. “Numeral classifiers and substantive number: Problems in the genesis of a linguistic type.” *Working Papers on Language Universals* 9: 1-39. *Stanford, CA: Stanford University.*
- Huang, C. and Ahrens, K. 2003. “Individuals, kinds and events: classifier coercion of nouns.” *Language Sciences* 25: 353-373.
- Li, Xuping 2013. *Numeral classifiers in Chinese. The syntax-semantics interface*. Berlin: De Gruyter Mouton
- Zhang, H. (2007). Numeral classifiers in Mandarin Chinese. *Journal of East Asian Linguistics*, 16(1): 43-59.



Kateřina Chládková and Paul Boersma

University of Amsterdam, Netherlands

k.chladkova@uva.nl; paul.boersma@uva.nl

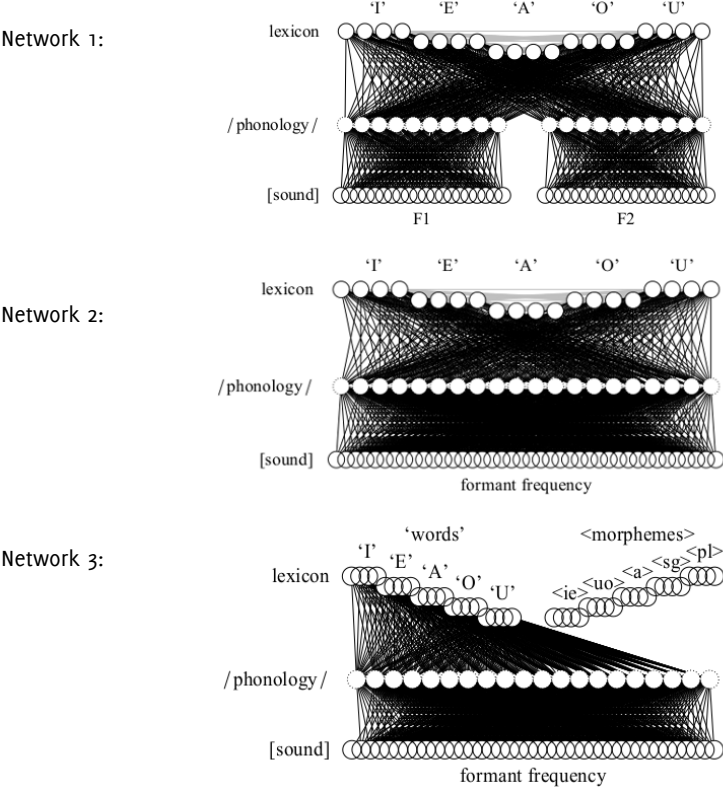
## **Distinctive features are emergent phonological representations: evidence from neural network models of L1 speech acquisition**

Distinctive features have been widely employed in phonological analyses of the sound patterns of the world's languages (Trubetzkoy, 1939; Jakobson, Fant & Halle, 1952). For instance, in many languages, the sound [i] is commonly referred to as consisting of the distinctive features [high] and [front]. While the distinctive feature has proven to be an important unit of phonological theory, it still remains a question whether the distinctive feature is an entity through which actual *language users* represent and acquire their native language speech sounds.

In this study, we investigate whether language learners create phonological feature representations for the sounds of their language. We model an artificial neural network with three layers: sound, phonology and lexicon. We implement three versions of the network that differ in the type of information that is available in the lexicon and in the architecture of their auditory layer. The architecture of each of the three networks is illustrated in the Figure on the next page. Namely, network 1 can represent only unanalyzed word meaning in the lexicon, and in the sound layer it has separate auditory dimensions for the first and the second formant frequency. Network 2 can represent only unanalyzed word meanings in the lexicon (similarly to network 1), and in the sound layer it has a single auditory dimension for formant frequency (unlike network 1). Network 3 also represents unanalyzed word meanings but, in contrast to networks 1 and 2, at a later stage of acquisition it also represents separate morphemes in the lexicon.

With each of the three networks we simulate lexicon-driven learning of a typical five-vowel language (such as Czech or Spanish). The results of the simulations show that learners who have separate auditory layers for the first and the second formant (network 1) create mostly feature-like representations for their vowels, while those who have a single auditory layer for formant frequency (network 2) create mostly phoneme-like representations. Finally, learners who have a single auditory layer for formant frequency but who are also able to employ morphological knowledge at some point during vowel learning (network 3) create mostly feature-like representations for their vowels. Since network 3 represents formant frequency on a single auditory dimension (cf. basilar membrane), and allows the virtual infant to also use her knowledge of morphemes at later stages of learning (cf. Berko, 1958; Fikkert and Freitas, 2006), we argue that it models human language acquisition more

realistically than networks 1 and 2. Thus, we conclude that phonological feature categories emerge from learners' exposure to the phonetics and morphophonology of the ambient language.



**References**

Berko, J. (1958). The child's learning of English morphology. *Word*, 14:150-177.

Fikkert, P. and Freitas, M. J. (2006). Allophony and allomorphy cue phonological acquisition: evidence from the european portuguese vowel system. *Catalan Journal of Linguistics*, 5:83-108.

Jakobson, R., Fant, G., and Halle, M. (1952). *Preliminaries to Speech Analysis: the Distinctive Features and their Correlates*. Cambridge, MA: MIT Press.

Trubetzkoy, N. (1939). *Grundzüge der Phonologie [Principles of Phonology]*. Los Angeles: University of California Press. Translated by C. Baltaxe, 1969.

## Natalia Cichosz

University College London, Great Britain  
nataliacichosz@gmail.com

### Polish affectedness and experiencer datives as adjuncts

In Polish there exist a number of structures which can optionally be preceded by a dative NP that receives an experiencer or affectedness interpretation. They include impersonal (1), middle (2) anticausative (3) and standard nominative-subject (4) sentences. In (1), the dative is most commonly interpreted as the performer of the action that experiences that action in a certain manner and in (2)-(4) it receives the affectedness interpretation.

It has commonly been assumed that case-marked NPs referring to an individual associated with an event should be analysed as arguments. Proposals compatible with this assumption are often inspired by Pylkkänen's (2002) applicative analysis and include those by Rivero, Arregui and Frąckowiak (2010), Malicka-Kleparska (2012), Rivero and Arregui (2012). Contrary to such analyses, I propose that dative NPs in (1)-(4) should be analysed as adjuncts. I also claim that dative NPs that precede the impersonal structure (1) and receive the performer of the action interpretation are generated in their surface, highest position in the clause. Conversely, affectedness datives will be shown to occur sentence-initially only as a result of movement.

Evidence against dative agents generated low comes from sentences such as (5) where both surface and inverse scope between *all*<sub>DAT</sub> and *not* are possible. Analyses assuming that the dative moves from below negation could be supported by a proposal that scope inversion in (5) results from the dative's reconstruction to its trace position. However, reconstructing the dative below *not* would remove it from a position where it c-commands the adverb and can therefore link to its experiencer argument. The adverb in (5) would thus be expected to link to the speaker and not the dative. Crucially, this is not how (5) can be interpreted. Instead, assuming that the dative originates high and that scope inversion happens via scope extension it is possible to derive only those readings which are attested for (5). Also, consistently with the above facts, dative agents occur sentence-initially in the neutral word order and lack any kind of interpretation that they could be assigned in the low position. Conversely, the high attachment site is not available for affectedness datives. This claim is supported by sentences such as (4a) where the dative modified by scope-bearing *dokładnie pięciu* 'exactly five' co-occurs with *ponownie* 'again'. Namely, in (4a) 'exactly five' can only be interpreted in the scope of 'again', which shows that the dative originates low in the clause. (4a) can thus describe a scenario

in which again exactly five teachers are affected by the subject failing the exam for the second time. The wide scope reading of ‘exactly five’, provided by the scenario and the diagram in (4b), is not available.

The adjunct status of the dative is confirmed by (6) and (7) which show that, unlike e.g. subjects, the dative cannot bind reciprocals or control secondary predicates. Moreover, as stated earlier, it is always an optional element of the clause. The analysis based on the adjunct status of the dative also correctly predicts its semantics. Arguments are interpreted as agents, themes, experiencers, etc. even if they always occur in the subject or object position. Conversely, as an adjunct, the dative is expected to make a constant semantic contribution to the meaning of the structure it precedes. I claim that the meaning of the dative is represented by (8) where the dative is interpreted as a participant in the event it is linked to but not in control of. This out-of-control semantics is expressed either when the dative is identified with the subject agent involved in a given event or when it is affected by that event. The dative is interpreted as an experiencer when it is co-indexed with the syntactically active arbitrary subject of the impersonal structure whose presence is marked by *się*. The dative’s index is assigned to the *arb* subject just like antecedents are assigned to *PRO<sub>arb</sub>* subjects of infinitives in (9) (e.g. Williams (1980)). Namely, for co-indexation to occur, the dative has to be a base-generated, local antecedent for the *arb* subject. If co-indexation is not possible, the dative receives the default affectedness interpretation that also allows it to be interpreted as a participant in the event.

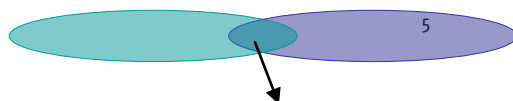
- (1) Jankowi przyjemnie się tańczyło.  
John.Dat. pleasurably refl danced.3sg.n.  
‘John danced and he experienced that as pleasurable.’
- (2) Jankowi te teksty dobrze się tłumaczą.  
John.Dat. these texts.Nom. well refl translate.3sg.pl.  
‘These texts translate well and John is affected by that.’
- (3) Jankowi zepsuł się samochód Tomka.  
John.Dat. broke-down.3sg. refl car.Nom. Tom.Gen.  
‘Tom’s car broke down and John was affected by that.’
- (4) a. [Dokładnie pięciu nauczycielom] ponownie Janek oblał egzamin.  
[exactly five teachers]Dat. Again John.No. failed.3sg.m. exam.Acc.  
‘Again, John failing the exam affected exactly five teachers.’

b. Scenario: Exam 1: John failed and 7 teachers were affected by that.

Exam 2: John failed and 10 teachers were affected by that.

Exam 1  
7 teachers affected

Exam 2  
10 teachers affected



Unavailable reading: 'Exactly five teachers were again affected by John failing the exam.'; \*exactly five > again

- (5) Wszystkim przyjemnie się nie tańczyło.  
all.Dat.pleasurably refl neg danced.3sg.n.  
'All didn't danced and considered not dancing pleasurable.' or 'Not all (=some) people danced and considered dancing pleasurable.'  
Not: 'It was pleasurable (for the speaker) that not all people danced.'
- (6) [Obydwu nauczycielom]i [Paweł i Tomek]j przedstawili dziewczynyk  
[both teachers]Dat. [Paul and Tom]Nom. introduced.3pl.vir. girls.Acc.  
sobie\*i,j,k nawzajem.  
self.Dat. reciprocally  
'Both teachers were affected by Paul and Tom introducing the girls to each other.'
- (7) Jankowi Pawełj zbil wazon Marii nago\*i,j.  
John.Dat. Paul.Nom. broke.3sg.m. vase.Acc. Mary.Gen. naked  
'Paul broke Mary's vase naked and John was affected by that.'  
Not: 'Paul broke Mary's vase when John was naked and John was affected by that event'
- (8) [[Dat]] = λxλe [PARTICIPANT (x,e) & OUT OF CONTROL (x,e)]
- (9) John told Mary that it would be important to Peter PROarb to leave early.

## References

- Malicka-Kleparska. 2012. Involuntary state constructions in Polish: a case of semantic-syntactic interface. In: M.Bloch-Trojnar and A. Bloch-Rozmej (Eds.), *Modules and interfaces*. Lublin: Wydawnictwo KUL, 164-184; Pykkänen, L. 2002. *Introducing arguments*. PhD dissertation, Cambridge, Mass: MIT Press; Rivero, M., Arregui, A. & Frąckowiak E. 2010. Variation in circumstantial modality: Polish vs. St'at'imcets. *Linguistic Inquiry*, 41, 704-714;
- Rivero, M. & Arregui, A. 2012. Building Involuntary States in Slavic. In: V. Demonte & L. McNally (Eds.), *Telicity, change, and state: A cross-categorical view of event structure*. Oxford University Press, New York, 300-332;
- Williams, E. 1980. Predication. *Linguistic Inquiry*, 11, 203-38.

## Kristin Davidse

KU Leuven (University of Leuven), Belgium  
Kristin.Davidse@arts.kuleuven.be

### Specificational and presentational *there*-clefts

*There* clefts have received little attention in the English grammar tradition and their very existence is debated. Huddleston & Pullum (2002: 1396) hold that the case is weak for analysing an example such as *There was one man (that) kept interrupting* as specifying a value for a variable described by the relative clause, i.e. as 'specificational' like an *it*-cleft. Against this, I will present grammatical and semantic-pragmatic arguments for recognizing specificational *there*-clefts (cf. Davidse 2000), and I will contrast them with presentational *there*-clefts.

I further distinguish two types of specificational *there*-clefts, whose 'binary' value-variable structure is typically reflected prosodically by the value carrying information focus, *[one (1), H|ocking, H|erman (2)]*, with the variable featuring a post-nuclear rise (1) or occupying a separate information unit (2). Cardinal specificational *there*-clefts, e.g. (1), indicate the absolute quantity, e.g. *one (1), few, not many*, of instances corresponding to the variable, e.g. *who didn't lecture*, which restricts the determiner structure of the focal constituent to absolute quantification (Milsark 1977). Enumerative specificational *there*-clefts (3) enumerate one or more instances, e.g. *Hocking, Herman*, as corresponding to the variable *who is ... known*. The enumerated instances are typically definite NPs, but indefinite ones are not excluded, e.g. *a few others* (3).

- (1) //think the maj\ority of them d/o //per^haps there was \one who didn't lecture // (LLC)
- (2) //well ^f\irst of 'all // there's a ^man called " ! H\ocking //who ^has I ^think taken his degr\ee //^in this de|p|artment //and is ^kn\own //who ^s\eemed // to ^be !f\airly 'strong //^and there is " ! H\erman //who is ^\also 'known // (LLC)
- (3) They can lie, so can I. It's the internet. There's only me and a few others who could tell you if I was telling the truth or not. (Google)

Presentational *there*-clefts are not specificational. In at least a number of them, *there's* serves to introduce a whole proposition, e.g. (4), which is reflected by the single information unit and sentence focus in (4). In others, however, it's the entity referred to by the postverbal NP, *the two men* (5), that seems to be presented and foregrounded (Lambrecht 1988).

- (4) A: // which ^on the 'whole are a g\ood 'thing//  
B: I'm ^sure there's a 'lot c\ould be 'done// (LLC)
- (5) There's the two men downstairs called to see you again. (LDC)

The characteristics of these two basic types of *there*-cleft and their subtypes will be fleshed out in terms of the determiner structure of their post-verbal NPs, the relative markers (*wh*-pronoun, *that* or zero), and their information structure, as deducible from the larger context (Kaltenböck 2005). The data for this study are taken from Wordbanks online, the Leuven Drama Corpus (LDC), the London Lund Corpus (LLC) and the Internet.

### References

- Davidse, Kristin. 2000. 'A constructional approach to clefts.' *Linguistics* 38: 1101-1131.
- Huddleston, Rodney & Geoffrey Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: CUP.
- Kaltenböck, Gunther. 2005. "*It*-extraposition in English: a functional view." *International Journal of Corpus Linguistics* 10: 119-159.
- Lambrecht, Knud. 1988. "Presentational cleft constructions in spoken French." In *Clause combining in grammar and discourse*, edited by John Haiman and Sandra Thompson, 135-179. Amsterdam: Benjamins. 135-179.
- Milsark, Gary. 1977. "Toward an explanation of certain peculiarities of the existential construction in English." *Linguistic Analysis* 3: 1-29.

## Mojmír Dočekal

Department of Linguistics and Baltic Languages, Masaryk University, Brno, Czech Republic  
docekal@phil.muni.cz

### Intervention effects: negation, universal quantifiers and Czech

In this talk, I address the intervention phenomena w.r.t. licensing of Slavic n(egative)-words and Negative Polarity Items (NPIs). As was observed already by Błaszczak (2001), universal quantifier in Polish intervenes in the licensing of n-words by sentential negation in double object constructions, see (1) and (2), Czech variation on her examples: both n-words and NPIs are unlicensed in (2). In the current literature on NPIs (Chierchia 2004/2013, Gajewski 2011 a.o.) such intervention effects are accounted for by an analysis which couches licensing of NPIs as sensitive not only to downward entailing (DE) properties of Fregean truth conditions but as sensitive to implicatures of their environment (and possible intervening operators). And because the universal quantifier in the scope of negation give raise to an existential implicature, the strong meaning of the whole sentence like (2) (with a

universal quantifier) ceases to be DE anymore, which causes the ungrammaticality of NPIs in such sentences – and generally in all cases where a strong element of a Horn scale dominates an NPI but is in the scope of an DE operator itself. Despite success of works like Chierchia (2013)/Gajewski (2011), there appeared some problems for the claim that derives all intervention effects only from implicatures: Homer (2008a,2008b,2010) discusses examples of presuppositions intervening in the licensing of NPIs. I aim to support and extend Homer’s claims that not only implicatures but even presuppositions are interveners with new data from Slavic languages and new observations w.r.t. the nature of intervening presuppositions.

- (1) Petr nedal žádnému/sebelepšimu studentovi všechny otázky.  
 Petr not-give no/even-the-best student all questions  
 ‘Peter didn’t give any/even the best student all questions.’
- (2) Petr nedal \*všem studentům/třem studentům žádné/sebelehčí otázky.  
 Petr not-give all students /three students no /even-the-easiest questions  
 ‘Peter didn’t give \*all students/three students any/even the easiest questions.’

**Proposal:** first case supporting Homer’s analysis of presuppositions as interveners is a new observation demonstrated in (3), a minimal pair to (2): the contrast between (2) and (3) shows that universal quantifier intervenes only if it modifies bare noun, but in case like (3) where the universal quantifier ranges a specific/definite NP, the existential presupposition disappears. I follow the works of Beck (2001) and Gajewski (2005) who claim that definite NPs give raise to a homogeneity presupposition and formalize this as (4a) – usual existential presupposition of a natural language universal quantifier vs. (4b) – homogeneity presupposition of the specific universal quantifier like in (3). The all-or-nothing presupposition in (4b) even if presuppositional doesn’t destroy the DE environment (unlike (4a)) and as such causes the universal quantifier to be non-intervener. Here I improve on Homer’s hypothesis that not all presuppositions are interveners: not only negative presuppositions don’t intervene but even purely universal as the first part of the disjunctive presupposition in (4b) are harmless too. Second case in support of presuppositions being interveners are cases of neg-raising predicates (I use the term purely descriptively) where (despite of Boškovič & Gajewski’s (2009) claims about non-existence of neg-raising in Slavic languages) even strict NPIs (like *until ...*, *at least*) and minimizers (like *not a single ...*) are perfectly grammatical in the embedded sentence, (5). But this is true only for non-presuppositional predicates like *want* selecting for a conditional on the embedded verb (cliticized on C). But minimal contrast of (6a) shows that a presuppositional verb like *know* breaks licensing even of weak NPIs and minimizers in the embedded clause. Which again can be rescued by a usage of a different complementizer of *whether* type like in (6b) or by a usage of a conditional like in (6c). Both strategies (*whether* like complementizer and the conditional mood) suspend the presupposition of the factive



verb *know* and the embedded clause remains DE, the real cause of grammaticality of weak NPIs and minimizers there.

- (3) Petr nedal všem těm studentům, kteří přišli pozdě, žádnou/sebemenší šanci.  
 Petr not-give all the students who came late no /even-the-smallest chance  
 ‘Peter didn’t give all the students, who came late, any/even the smallest chance.’
- (4) a.  $\| \textit{bare}\forall \| = \lambda P\lambda Q: \exists x[P(x)]. \forall x[P(x) \rightarrow Q(x)]$   
 b.  $\| \textit{specific}\forall \| = \lambda P\lambda Q: [\forall x[P(x)]] \vee [\forall x[\neg P(x)]]]. \forall x[P(x) \rightarrow Q(x)]$
- (5) Nechci, aby sis vzala Karla/ani jednoho studenta až do Vánoc /nejméně 2 roky.  
 not-want that SE marry Karel/not a single student until Christmass /at least 2 years  
 ‘I don’t want that you marry Karel/even one student until Christmass/at least 2 years.’
- (6) a. \*Petr neví, že Marie má sebemenší šanci na úspěch/vůbec nějakou šanci.  
 ‘Petr doesn’t know that Mary has slightest chance/any chance.’  
 b. Petr neví, jestli Marie vůbec něco řekla.  
 ‘Petr doesn’t know whether Mary said even single word.’  
 c. Petr neví, že by Marie měla sebemenší šanci na úspěch.  
 ‘Petr doesn’t know that Mary would have slightest chance to win.’

## References

- Beck, S. (2001). Reciprocals are definites. *Natural language semantics* 9, 69–138.
- Błaszczak, J. (2001). *Investigation into the interaction between the indefinites and negation*. vol. 51: Studia Grammatica. Berlin: Akademie Verlag.
- Bošković, Ž., & Gajewski, J. (2009). Semantic correlates of the NP/DP parameter. In *Proceedings of NELS* (Vol. 39).
- Chierchia, G. (2004). Scalar implicatures, polarity phenomena, and the syntax/pragmatics interface. In A. Belletti (Ed.), *Structures and Beyond: The cartography of syntactic structures*, pp. 39–103. Oxford: Oxford University Press.
- Chierchia, G. (2013). *Logic in grammar: Polarity, free choice, and intervention*. Oxford University Press.
- Gajewski, J. R. (2005). *Neg-raising: Polarity and presupposition*. PhD MIT.
- Gajewski, J. R. (2011). Licensing strong NPIs. *Natural Language Semantics*, 19(2), 109–148.
- Homer, V. (2008a). Disruption of NPI licensing: The case of presuppositions. In *Proceedings of SALT* (Vol. 18, pp. 429–446).
- Homer, V. (2008b). Presuppositions can be disruptors too: A case against Strawson-entailment. *Proceedings of WCCFL XXVII*.
- Homer, V. (2010). *Polarity and Modality*. PhD University of California.

## Mojmír Dočekal\*, Scott Grimm\*\* and Markéta Ziková\*

\*Masaryk University, Brno, \*\*University of Rochester, Rochester, NY

docekal@phil.muni.cz, scott.grimm@rochester.edu, zikova@phil.muni.cz

### How do you count a leaf?: On the rigidity of Czech noun semantics

Several recent studies on nominal number have uncovered systems with limited number morphology lacking the expected mass/count distinction, instead manifesting a high degree of “nominal flexibility” (Lima 2010, Dalrymple and Mofu 2012). Such data lends support to several elegant theories of nominal meaning (Chierchia 1998, Borer 2005, Pelletier 2012) which assume a common ontology for all nouns. Czech presents the opposite behavior: it manifests rich number morphology and very limited nominal flexibility. Its derivational morphology and complex numerals make a wide variety of distinctions, directly targeting several ontological sorts (groups, connected clusters and taxonomic kinds). This talk analyzes Czech’s grammatical number system and discusses its implications for the treatment of countability in general: Czech stands as a counter-example for deriving count nouns from mass nouns or vice versa (Chierchia 1998/Borer 2005) as well as for taking nominal flexibility to be a core feature of nominal reference (Chierchia 2010/Pelletier 2012). We conjecture that nominal flexibility is not intrinsic to nominal reference but is inversely correlated to the richness of a language’s number morphology.

**Restricted Nominal Flexibility:** “Grinding” is not permitted in Czech, see (1), even though bare singulars are grammatical. This is unexpected under the account of Chierchia (1998, 2010). Furthermore, unmodified nouns may not be coerced into a “different kinds” interpretation, only a packaged interpretation, (2), which, in turn, is only available with a subset of non-countable nouns.

- |   |  |
|---|--|
| (1) Po celé silnici byl pes.<br>on whole road was dog<br>'There was a dog all over the road.' | (2) Vypili jsme dvě vína.<br>drank-we AUX two wines<br>'We drank two (bottles/*kinds of) wines.' |
|---|--|

**A Second Type of Non-Countable Noun and Complex Numerals:** Czech also has derived mass nouns (root *list-* ‘leaf’: sg *list*, pl *list-y*, a derived mass form: *list-í* ‘foliage’), which do not combine with cardinal numerals (#*dvě list-í* ‘two foliagees’). Nevertheless Czech speakers have a clear intuition that the parts of *list-í* are individual (atomic) leaves. Such nouns are unexpected under an account such as Chierchia (1998, 2010). These derived nouns are only countable with the aid of complex numerals: *dv-oje listí* ‘two sets of leaves’ or *dv-ojí listí* ‘two kinds of leaves’.

**Analysis:** We use (an extensionalized version of) Krifka’s (1995) theory as a basis, where root nouns designate a kind or concept and common nouns designate realizations of the kind, as in (3). Krifka (1995) analyzes nouns in English as able to refer equally to objects or to taxonomic subkinds; however, given (2), only the former is possible for unmodified nouns in Czech. The suffix *-oje* combines with cardinal numeral roots to designate a number of collections of an entity, e.g. *dv-oje* ‘two collections’. This complex numeral combines with: pluralia tantum (*schody* ‘stairs’), entities that typically come together in multiples (*sirky* ‘matches’), and *-í* nouns (*dříví* ‘firewood’). We analyze *-oje* by extending the account of Grimm (2012), who adds several connectedness relations to the standard mereological framework and defines, with the aid of a transitive connection relation, “cluster individuals” (relative to a property and connection type) as in (4). Given connected clusters, we analyze *-í* nouns as aggregates—nouns which may refer within domain of atoms, sums or clusters, as in (5). Pluralization and cardinal modification are blocked since the number argument *n* is already bound and also the presuppositions of a purely atomic or purely sum domain, respectively, are not met. Extending Grimm (2012), we define “Maximal Clusters”, (6), and treat *-oje* numerals as selecting for them, i.e. *dvoje listí* designates a sum of two Maximal Clusters of leaves, (7). The second complex numeral suffix, *-ojí*, which designates “different kinds”, is syntactically parallel and treated analogously in (8), except requiring a kind and returning kind subkinds, obtained via the taxonomic relation  $T(x,k)$ . The third complex numeral suffix in Czech, *-ojice*, assigns a cardinal value specifically to groups: *dv-ojice mužů* ‘a group of two men’. The distribution of *-ojice* differs from *-oje*: limited to animate nouns and characteristically to those similar to the canonical group nouns (‘team’). We analyze *-ojice* in (9) as first combining with a number, which feeds the OU operator, and then the property provided by the genitive argument.

- (3)  $\parallel dog \parallel := \lambda n \lambda x [R(x, Dog) \wedge OU(Dog, x) = n]$  (OU = “object unit”)
- (4)  $Cluster(x, P, C) = \exists Z [x = \bigoplus Z \wedge \forall z, z' \in Z \exists Y [TransitiveC(z, z', P, C, Y)]]$
- (5)  $\parallel í \parallel := \lambda k \lambda x \exists n [R(x, k) \wedge [x \in ATOM \vee x \in SUM \vee x \in CLUSTER] \wedge OU(k, x) = n]$
- (6)  $MaxCluster(x, P) = \exists C [Cluster(x, P, C) \wedge \forall y (Cluster(y, P, C) \wedge O(y, x) \leftrightarrow y \leq x)]$
- (7)  $\parallel oje \parallel = \lambda n \lambda P \lambda X [P(x) \wedge \exists Y [\forall z (z < x \wedge MaxCluster(z, P) \rightarrow z \in Y) \wedge |Y| = n]]$   
 $\parallel dv - oje listí \parallel = \lambda x [LEAF(x) \wedge \exists Y [\forall z (z < x \wedge MaxCluster(z, LEAF) \rightarrow z \in Y) \wedge |Y| = 2]]$
- (8)  $\parallel ojí \parallel = \lambda n \lambda k \lambda x [\exists Y [\forall z (z < x \wedge T(z, k) \rightarrow z \in Y) \wedge |Y| = n]]$
- (9)  $\parallel -ojice \parallel = \lambda n \lambda P \lambda x [\uparrow (P(x)) \wedge OU(P, x) = n]$

## References:

- Borer, H. (2005). *Structuring sense I: In name only*. Oxford: Oxford University Press.
- Chierchia, G. (1998). Plurality of mass nouns and the notion of “semantic parameter”. In S. Rothstein (Ed.), *Events and grammar*, Dordrecht, pp. 53–104. Kluwer.
- Chierchia, G. (2010). Mass nouns, vagueness and semantic variation. *Synthese* 174, 99–149.
- Dalrymple, M. and S. Mofu (2012). Plural semantics, reduplication, and numeral modification in Indonesian. *Journal of Semantics* 29(2), 229–260.
- Grimm, S. (2012). *Number and Individuation*. Ph.D. thesis, Stanford University.
- Krifka, M. (1995). Common nouns: A contrastive analysis of English and Chinese. In G. Carlson and F.J. Pelletier (Eds.), *The Generic Book*, pp. 398–411. Chicago Univ. Press.
- Lima, S. (2010). About the count-mass distinction in yudja: A description. In B. Rogers and A. Szakay (Eds.), *University of British Columbia working papers in linguistics: Papers for WSCLA 15*, the fifteenth workshop on structure and constituency in languages of the Americas, Vancouver, pp. 157–164. University of British Columbia.
- Pelletier, F. J. (2012). Count and mass across languages, Chapter *Lexical Nouns as Both +mass and +count*, and *Neither +mass nor +count*. Oxford: Oxford University Press.

## Tomáš Duběda

Charles University in Prague, Czech Republic

dubeda@ff.cuni.cz

## When One Phonology Meets Another: The Case of Gallicisms in Czech

The goal of the paper is to explore phonological aspects of Gallicisms (French loanwords) in Czech, using the concepts of Loanword Phonology as well as a recently proposed paradigm of loanword adaptation principles. Unlike most available works on the subject (Buben, 1941; Romportl, 1978), which are prescriptive and sometimes atomistic, this analysis is descriptive and system-oriented.

Gallicisms form a relatively numerous but nowadays almost non-productive category of loanwords in Czech. Most of these loanwords have adapted spelling (*chanson* > *šanson*; *brochure* > *brožura*). Their phonological specificities include the occurrence of borrowed phonemes (/f/, /g/, /o:/) and typical phonotactic sequences (e.g. final /ɛ:/, /o:/, /on/, /a:n/, /ɛ:r/ – *komuniké*, *šapitó*, *bujon*, *bonvinván*, *exteriér*), which may be a source of phonological analogies, including “unnecessary repairs” (Kang, 2011), such as the pronunciation [ˈka:n] instead of [ˈkan] for the toponym *Cannes*. In addition, caricatural pronunciations often make use of these phonologically salient patterns.

We analysed the set of Gallicisms (approx. 1,300) included in Rejzek (2011), with the aim of describing the adaptation processes which shaped their

phonology in the target language. The distribution of the principles of adaptation (Duběda et al., forthcoming) is as follows: in 54% of the items, adaptation is based on the *phonological approximation principle* (i.e. substitution of foreign phonemes by domestic ones, phonotactic and prosodic normalisation; e.g. *elegán* [ˈʔelega:n], *koláž* [ˈkola:ʃ]). While the projection of many phonemes or features is straightforward (e.g. the consonants /b, f, r/), in other cases, the mapping is rather complex (e.g. the treatment of vowel length). Despite the approximation of a relatively rich vocalic system of French by a smaller system in Czech, no case of homonymy is attested in the sample (but may occur in proper names, e.g. *Gilles/Jules* [ˈʒi]). Five percent of the items are based on the *spelling pronunciation principle* (Czech phonetisation of the foreign spelling form; e.g. *rajon* [ˈrajon]), and in 6% of the sample, both aforementioned principles are applied within the same word (e.g. *kuplet* [ˈkuplet]). *False analogies with other French words or with Czech words* may be found marginally (e.g. *filé* < *filet*, *protěžovat* instead of *protežovat* < *protéger*). The *influence of a third language* was observed in a surprisingly high number of cases. First, in 24% of the items, the Gallicism is formally treated like a Latinism (e.g. *rudimentaire* > *rudimentární* [rudimenta:rɲi:]): this may be explained by the fact that Latinisms are both an older and larger lexical category than Gallicisms in Czech, and most words of this type are also considered Latinisms (*mots savants*) in French. Second, 8% of the items bear phonological marks of German, because they were adopted via this language (e.g. *klavír* [klavi:r]). In orthographically non-adapted loanwords and proper names, the influence of English is also observed nowadays. A very limited number of adaptations is explainable by *phonological universals*, and, finally, 3% of the sample exhibit *unclearly motivated adaptation*.

The analysis of French loanwords in Czech shows a certain number of theoretically interesting aspects which are, in our view, under-estimated by seminal works on Loanword Phonology (Calabrese & Wetzels, 2009; Kang, 2011). These include the concurrence of pronunciation and spelling in the process of borrowing, analogies with words from both the source and the target languages, the influence of third languages, as well as sociolinguistic factors (the declining knowledge of French among Czech population may enhance the phonological “blurriness” of Gallicisms, and thus favour mispronunciations).

## References

- Buben, Vladimír. 1941. K výslovnosti románských slov v češtině, *Slovo a Slovesnost* 3: 144–154.
- Duběda, Tomáš, Havlík, Martin, Jílková, Lucie, and Štěpánová, Veronika. Forthcoming. “Loanwords and Foreign Proper Names in Czech: A Phonologist’s View.” *Language Structure and Language Use. Proceedings of the Olomouc Linguistics Colloquium 2013*.

- Calabrese, Andrea, and Wetzels, W. Leo, eds. 2009. *Loan Phonology*. Amsterdam/ Philadelphia: John Benjamins.
- Kang, Y. 2011. "Loanword phonology." In *Companion to Phonology*, edited by van Oostendorp, Marc, Colin Ewen, Elizabeth Hume, and Keren Rice. Wiley-Blackwell.
- Rejzek, Jiří. 2001. *Český etymologický slovník*. Praha: Leda.
- Romportl, Milan et al. 1978. *Výslovnost spisovné češtiny – Výslovnost slov přejatých*. Praha: Academia.

Laurent Dumercy<sup>1</sup>, Frédéric Lavigne<sup>1</sup>, Tobias Scheer<sup>1</sup>, Markéta Ziková<sup>2</sup>

<sup>1</sup>University of Nice, CNRS 7320, France, <sup>2</sup>Masaryk University, Brno, Czech Republic

<sup>1</sup>scheer@unice.fr, <sup>2</sup>zikova@phil.muni.cz

## Anything goes: Czech initial clusters in a dichotic experiment

Some languages restrict word-initial clusters to TR (T = obstruent, R = sonorant), while others also allow for RT, TT and RR. The former, TR-only languages, instantiate words with *all* logically possible *muta cum liquida* clusters. By contrast, the latter, anything-goes languages, may (e.g. Moroccan Arabic) or may not implement all logically possible #RT, #TT and #RR clusters (e.g. in Czech only 28 out of 108 possible #RT clusters occur).

The question raised is thus whether the missing non-#TRs in Greek, Czech etc. are accidental or systematic gaps. The zero hypothesis is that for each language, the set of occurring and non-occurring clusters shares some property. In Slavic languages neither set forms a natural class in any sense (e.g. Cyran & Gussmann 1999 for Polish). This as well as the diachronic situation in Slavic (#CCs are created by the loss of yers) speaks in favour of the accidental gap analysis. On the theoretical side, the accidental gap analysis matches the claim that there are only two types of grammars (regarding initial clusters): one imposes a restriction on #CCs, the other does not. The former produces TR-only-, the latter anything-goes languages. The prediction of a binary typology follows from the idea that the beginning of the word has a true phonological identity: syllabic space (Lowenstamm 1999, Scheer 2012).

In this talk we experimentally test the prediction that really anything goes in anything-goes languages. In dichotic experiments, subjects are exposed to two distinct stimuli through two distinct perceptive channels. They then perceive neither: the brain has fused them into something that is not present in any perceptive input; the best known case is the McGurk effect (McGurk & MacDonald 1976). Dichotic effects may also be achieved with two distinct audio channels, perceived through the

left (L) and right ear (R). Cutting (1975) has shown that English natives perceive *play* when inputted with *pay* (L) and *lay* (R). Interestingly, the perception *play* is still achieved when *lay* has a 50 ms lead on *pay*, i.e. when in the physical input the #l precedes the #p. That English natives will not perceive *lpay* is understandable since (1) there is no such lexical item and (2) their TR-only grammar prohibits #lp.

If the accidental gap hypothesis is correct, the grammar of Czech for example does not prohibit any #RT, independently of whether it does or does not occur in some lexical item ((2) above). Like English natives, however, the perception of Czechs may be guided by the existence of a lexical item that instantiates a given #RT ((1) above). We have run an experiment with 24 Czech natives along the audio-audio dichotic protocol mentioned (54 word pairs distributed over all types of #CCs). We report that there is a strong lexical bias favouring the perception of existing lexical items, as compared to non-existing ones; e.g. on an input {*dousit* (R), *rousit* (L)} speakers will report that they perceive *rdousit* "to throttle" (while *drousit* is not a word in Czech). This behaviour extends to all types of #CCs, and is pervasive even if the non-existing target is favoured by a 50 ms lead ({*dousit* (R), *rousit* (L, 50 ms later)}). Combined with this lexical bias there is also (against the prediction) an existing-cluster-effect: when target word 1 exists (e.g. *lpět* and *prak*) but target word 2 does not (*\*plět* and *\*rpak*), the perception of the latter is significantly more frequent when the non-existing word begins with an existing #CC (#pl of *\*plět*), as compared to when it bears a non-existing #CC (#rp of *\*rpak*). The trouble is that both biases (lexical and existing-cluster) are interleaved. In order to tease them apart, i.e. to make sure that the stimulus is only assessed by the grammar (rather than by a simple lexical access), we need to get the lexical bias out of the way. We therefore probed only pairs made of target words that do not exist, e.g. {*touk* (R), *rouk* (L)}, neither *\*trouk* or *\*rtouk* exists. This time the result conforms to the prediction: the existing-cluster-effect disappears. That is, there is no statistically detectable effect induced by cluster existence: as predicted, the perception of speakers stubbornly follows lead time, independently of the result (existing or non-existing cluster). We conclude that once the lexical bias is eliminated, the prediction that literally anything goes is supported.

## References

- Cutting, James E. 1975. Aspects of Phonological Fusion. *Journal of Experimental Psychology* 104: 105-120.
- Cyran, Eugeniusz & Edmund Gussmann 1999. Consonant clusters and governing relations: Polish initial consonant sequences. *The syllable, Views and Facts*, edited by Harry van der Hulst & Nancy Ritter, 219-248. Berlin, New York: de Gruyter.

- Lowenstamm, Jean 1999. The beginning of the word. *Phonologica* 1996, edited by John Rennison & Klaus Kühnhammer, 153-166. La Hague: Holland Academic Graphics. WEB.
- McCurk, H. & J. MacDonald 1976. Hearing Lips and Seeing Voices. *Nature* 264: 746-748.
- Scheer, Tobias 2012. Direct Interface and One-Channel Translation. *A Non-Diacritic Theory of the Morphosyntax-Phonology Interface*. Vol.2 of *A Lateral Theory of phonology*. Berlin: de Gruyter.

## Věra Dvořák

Rutgers University, New Jersey, USA  
 dvorakov@rutgers.edu

### A typology of null direct objects in Czech

Research on null elements in language is as old as the history of generative grammar: light verbs, PROs, traces, operators, etc. (esp. Chomsky 1981, among others). While it is generally accepted that Czech is a pro-drop language with null pronouns as possible subjects of finite clauses and null PROs as subjects of non-finite clauses, the topic of Czech non-overt objects is a scarcely explored one. I show that there are (at least) two different types of phonetically null direct objects in Czech: (1) generic, human-denoting objects of the sorts found in Italian (Rizzi 1986) or French (Authier 1989), and (2) indefinite, lexically or contextually specified objects, often subsumed under the label of “unspecified object alternation” (Levin 1993, 33).

(1) Mozartova hudba rozveseluje\_\_ / rozveselí\_\_ / \*právě teď rozveseluje\_\_.

Mozart's music cheers\_up.impf / cheers\_up.pf / right now cheers.impf  
 ‘Mozart’s music cheers one up / can cheer one up / is now cheering one up.’

(2) Táta zrovna teď vyřezává\_\_ / často vyřezává\_\_ / \*vyřeže\_\_.

Daddy right now carves.impf often carves.impf carves.pf  
 ‘Daddy is carving (something) at the moment/ often carves (st.)/ will carve (st.).’

Generic null objects (GNO) can combine with both perfective as well as imperfective verbs, as exemplified in (1), while indefinite null objects (INO) combine only with imperfectives, as the ungrammaticality of *Táta vyřeže* in (2) shows. (There are several cases of perfective transitive verbs that do not require an overt object and are not generic, e.g. *Jan uklidil*. ‘Jan cleaned up.pf’. However, they do not represent a systematic class which suggests that they should be treated as lexicalized cases.) On the other hand, GNO combine only with imperfectives that are interpreted habitually, cf. the ungrammaticality of the adverb *právě teď* in combination with *rozveseluje* in (1); INO in (2) allow imperfectives with both an ongoing (progressive-like) or a habitual or interpretation. Moreover, GNO undergo several of Rizzi’s tests confirming their syntactic status: they control into infinitival



clauses and bind reflexive anaphors both directly or indirectly via PRO. INO do not allow any of these even in the cases where they have to denote humans (the data are not presented here for the sake of space).

I assume that INO arise as a result of existential entailment which is associated with transitive verbal roots at a VP-level, but they are not present in the syntactic argument slots, and consequently cannot receive an object  $\theta$ -role. This explains their incompatibility with perfective verbs which are based on telic predicates, i.e. predicates that need to be clearly delimited (bounded) whereby a specified quantity of an object noun often serves as a means of this delimitation, esp. for verbs with incremental themes (Krifka 1992, Filip 1995).

In order to capture the above mentioned properties of GNO, I argue that they are bare NPs, based on a phonetically null root that denotes the property that could be roughly labeled as “Human”. This makes them different from pronouns which are conceptually empty and structurally full DPs (Panagiotidis 2002); see Fig. 1. These general human-nouns semantically correspond to a predicate that introduces a variable that is bound by a dyadic generic operator described in Krifka et al. (1995). Such a generic operator is responsible also for the habituality of a sentence by quantifying over a situation variable  $s$  (Krifka et al. 1995, 32), cf. the following general formula for a habitual sentence with a generically interpreted null object: **GEN**[ $x, s, \dots; \dots$ ] (*Restrictor* [*human*( $x$ ),  $s, \dots$ ]; *Matrix*[ $x, s, \dots$ ]). The benefit of this analysis is that the humanness as well as genericity of GNO is a result of syntactic and semantic operations that are already available in the language system. It thus departs from Rizzi (1986), who assumed that null objects are regular pronouns, and who had to stipulate both [+human] and [+generic] as extra features associated with the pronoun’s arbitrary interpretation.

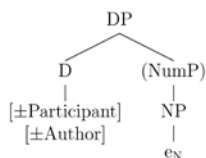
Figure 1.

a. General human noun



b. Structural template of a regular pronoun

(e<sub>N</sub> = an empty noun, not denoting any concept)



## References

- Authier, J.-Marc. 1989. "Arbitrary null objects and unselective binding." In *The Null Subject Parameter*, edited by Osvaldo Jaeggli and Ken Safir, 45–67. Dordrecht: Kluwer.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Filip, Hana. 1995. "Aspect and the Semantics of Noun Phrases." In *Tense and Aspect in Discourse*, edited by Co Vet and Carl Vetters, 227–255. Berlin: Mouton de Gruyter.
- Krifka, Manfred. 1992. "Thematic Relations as Links between Nominal Reference and Temporal Constitution." In *Lexical Matters*, edited by Ivan Sag and Anna Szabolcsi, 29–53. Stanford: CSLI Publications.
- Krifka, Manfred et al. 1995. "Genericity: An Introduction." In *The Generic Book*, edited by Gregory N. Carlson and Francis Jeffrey Pelletier, 1–124. Chicago: The University of Chicago Press.
- Levin, Beth. 1993. *English Verb Classes and Alternations*. Chicago: The University of Chicago Press.
- Panagiotidis, Phoevos. 2002. *Pronouns, Clitics and Empty Nouns*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Rizzi, Luigi. 1986. "Null Objects in Italian and the Theory of Pro." *Linguistic Inquiry* 17 (3): 501–557.

## Jan Terje Faarlund

Centre for the Study of Mind in Nature, University of Oslo, Norway

j.t.faarlund@iln.uio.no

## Preposition stranding as a global isogloss

A stranded preposition is a preposition not immediately followed by its complement (similarly, postposition stranding would be a postposition not immediately preceded by its complement). There are basically two ways of stranding a preposition: the complement may be moved to a different position in the clause (e.g. by Wh-movement, topicalization, or passive), or it may be represented by an empty element

controlled by a higher phrase (as in complementizer relatives, infinitival relatives, tough movement, and as a parasitic gaps).

Among the world's languages, preposition stranding in this sense is found as a regular syntactic pattern in English and in Mainland Scandinavian, but in no other Germanic language. Outside of Germanic, a few marginal cases may be found in French and Italian, and an equivalent phenomenon can be observed in Zoque (Mixe-Zoquean, Mesoamerica).

Concentrating on the two types of relative clauses, introduced by a relative pronoun or by a complementizer (which may be null), I will discuss preposition stranding from three different perspectives. First, in a diachronic perspective. I will be looking for the historical roots of the constructions which can be found in Old Scandinavian, the common ancestor of the two languages, Scandinavian and English (Emonds & Faarlund to appear), where preposition stranding is general and widespread. Second, in the perspective of language classification and genetic relationship, I will identify other syntactic features shared by the two languages with preposition stranding, but absent in other Germanic languages, such as particle shift, split infinitive, and raising. These features may in some way turn out to be related to preposition stranding, in that they seem to indicate a certain tendency towards short dependency relations not shared by other Germanic languages, confirming the conclusion of Emonds & Faarlund (to appear). Third, the Scandinavian and English type of preposition stranding will be compared to a similar mechanism of postposition stranding in Zoque (Faarlund 2012, Jimenez 2014), concluding that although pre- and postposition stranding is rare in the world's languages it is an option made available by universal grammar.

## References

- Emonds, Joseph and Jan Terje Faarlund (to appear). English as North Germanic.  
Faarlund, Jan Terje. 2012. *A Grammar of Chiapas Zoque*. Oxford: Oxford University Press.  
Jiménez, Silviano Jiménez. 2014. *Oraciones de relativo en zoque de San Miguel Chimalapa*.  
Master's thesis, Centro de investigaciones y estudios superiores en antropología social,  
Mexico, DF

## Bruno Fernandes and Stephanie Vaz

FCSH- UNL, Portugal

Bruno86fernandes@gmail.com; stephanie.vaz@fcs.unl.pt

### Acquisition of Attachment Preferences in European Portuguese

This study investigates attachment preferences with 3 and 4 years old children. Psycholinguistics has mostly focused on adults, which makes this study assume a double importance. Using a picture verification task we intended to test children's preference in attaching relative clauses and their acquisition of Pseudo Relatives (PR).

Since Cuetos & Mitchell (1988) reported that sentences like "someone shot the maid of the actress that was on the balcony" were not interpreted the same way in English and Spanish, the parser's universality became questioned.

This poses a challenge to language acquisition; children must set the grammatical properties and adjust the parser to a given language. This predicts a learning to parse stage.

Previous studies correlate children's working memory and attachment preferences (Swets et al., 2007; Felser et al., 2009). Grillo & Costa (2012) propose that the asymmetry can be accounted for by the availability of PRs (see Cinque, 1992), a syntactic structure which is string identical to RCs, but it is a Small Clause and requires matching tense between the embedded and the matrix verb. This view assumes an innate parser; children's behavior should resemble the adults'.

We test Grillo & Costa's prediction with 3 groups of children acquiring EP, 3, 4 and 5 year olds, using a picture verification task. The test was constructed in a 2X2 design, crossing tense match and PR availability. In RC only conditions, the child would have to resolve only the RC attachment site ambiguity. In PR conditions, the children would have to resolve a syntactic ambiguity. The test consisted of 20 test items and 20 fillers. The order of presentation was randomized and counterbalanced. Below we offer an example of the test items and the method.

After presenting two sets of the same characters the researcher says one of the conditions:

- A. Conheci o pai do menino que está a correr. (RC-only. Tense mismatch.)
- B. Conheço o pai do menino que está a correr. (RC-only. Tense match)
- C. Vi o pai do menino que está a correr. (PR. Tense mismatch)
- D. Vejo o pai do menino que está a correr. (PR. Tense match)

I know/ see the father of the boy that is running

Subjects see the same sets of characters, but this time, in each set, one of the characters of the complex DP is performing the action of the embedded verb and, after being asked “who is singing?”, choose one of the two sets of characters.

Results:

	<u>Pseudorelatives</u>		<u>Pseudorelatives Total</u>	Relatives		Relatives Total	Grand Total
	Tense match	Tense Mismatch		Tense match	Tense Mismatch		
3Y	0.770	0.740	0.755	0.630	0.550	0.590	0.673
4Y	0.800	0.820	0.810	0.600	0.640	0.620	0.715
5Y	0.890	0.810	0.850	0.560	0.510	0.535	0.693
<b>Grand Total</b>	<b>0.820</b>	<b>0.790</b>	<b>0.805</b>	<b>0.597</b>	<b>0.567</b>	<b>0.582</b>	<b>0.693</b>

We found an effect for PR availability and no effect of tense. Children seem to start from assuming all cases of *que* clauses are PR and then restrict the PR reading. The results are compatible with a view where no learning to parse occurs, but children have to learn to structure.

## References

- Cuetos, F., & Mitchell, D. C. (1988). Cross-linguistic differences in parsing. *Cognition*, 30, 73–105
- Cinque, G. (1992). The Pseudo-Relative and Acc-ing constructions after verbs of perception. In University of Venice 1587 Working Papers in Linguistics. Università di Venezia
- Felser, Claudia, Martinis, T., Clahsen, H., (2003). Children’s Processing of Ambiguous Sentences: A Study of Relative clause attachment. *Language Acquisition*, 11:3, 127-163, DOI.
- Grillo, N. & Costa, J. (2012). A novel argument for the universality of parsing principles. CUNY. 25th CUNY Conference on Human Sentence Processing.
- Maia, M., & Maia, J. (2001). The comprehension of relative clauses by monolingual and bilingual speakers of Portuguese and English. Paper presented at the Congresso de Sociedade Internacional de Português como Língua Estrangeira (SIPLE), November 2001
- Miyamoto, E. (1999). Relative clause processing in Brazilian Portuguese and in Japanese. Ph.D. thesis MIT Cambridge, MA.
- Swets, B. et al. (2007). The role of working memory in syntactic ambiguity resolution: A psychometric approach. *Journal of Experimental Psychology: General*, 136, 64-81

## Joanna Filipczak and Piotr Mostowski

Section for Sign Linguistics, University of Warsaw, Poland  
j.filipczak@uw.edu.pl; piotr.mostowski@uw.edu.pl

### **Doubling construction in Polish Sign Language. Corpus-based analysis**

This study focuses on two distinct functions of repetition from the perspective of discourse. First, we want to investigate if Polish Sign Language (*polski język migowy*, PJM) has the so-called doubling construction (DC) [Lillo-Martin & de Quadros, 2008]. Second, we would like to focus on repetitions that show no influence on the semantics of the sentence, but rather play a crucial role at the level of discourse and interaction between signers (we call them discourse-driven repetitions). We are not aware of any other research on this subject for Polish Sign Language.

Our analysis is based on a careful examination of elicited data recorded for the PJM corpus project that is currently being created in Poland. The empirical material that we have analyzed consists of nearly 20 hours of footage involving 6 Deaf participants, native or near-native users of Polish Sign Language. The informants represent both sexes, different ages and different social status.

According to Lillo-Martin & de Quadros's proposal, DCs mark empathic focus. DCs have also been analyzed and discussed for other sign languages, including HKSL [Sze 2008], RSL [Samaro 2008] and NGT [Kimmelman 2010]. It seems justified to claim that DCs play an important role from the point of view of information structure. Discourse repetitions also seem to be part and parcel of signed utterances, although we have noticed that some signers use them significantly more often than others. Our paper attempts to analyze the constructions in question using methods that have been applied to spoken dialog corpora. It should be noted that repetition is very common in spontaneous speech, as illustrated in example (1), taken from the British National Corpus. Various types of repetition have been investigated for many spoken languages [see e.g. Aijmer & Stenström 2004]. We would like to compare our preliminary findings on repetition in the PJM corpus material with the spoken-language dialog data extracted from the Polish PELCRA Corpus (see example (2), with repeated elements in bold). Although it is not uncommon to encounter repetition in everyday spoken conversation, it is striking that it is far more frequent in PJM than in spoken Polish. Our preliminary observations allow us to propose the following typology of repetitions in PJM, based on their function in discourse strategies:

- (1) driven by information structure (emphatic stress, doubling constructions, topicalization) – intensification of information (example (3))
- (2) specification and clarification of information

- (2.1) repetition of segments and whole phrases: e.g. new topic in conversation (example (4))
- (2.2) quasi-reduplication (repeating synonyms) (example (5))
- (3) repetition for pragmatic goals of communication
  - (3.1) redundancy for text coherence purposes (example (6))
  - (3.2) showing social status (education, contact with other sign languages) (example (7))
  - (3.3) compensating for differences between dialects of PJM (example (8))

EXAMPLES:

(1) English, BNC:

B: cos **it'll**, **it'll** come out, **he'll say** to me Sunday when were at home (...) **he'll say**, you know that nightmare I keep having, it was that one, he will **he'll say**, and I'll say to him well

A: **Same one, same one** coming back

B: if, because, **he saw what was going on**, in a split second **he saw what was happening**, I mean **it was, it was** (...)

(2) Polish, PELCRA:

**startej marchewki startej marchewki** za śmietaną z cytrynką i z cukrem. kurde jak laski **wiesz**. gdzie ja się kurna tak opaliłem. a ja autentycznie się zrobiłem **wiesz brązowiutki** ale to tak sympatycznie **brązowiutki wiesz** ?

(3) PJM:

A: MEETING FOURTH FEBRUARY

B: **WHERE** PLACE **WHERE**, MEETING WHERE

A: 'Meeting is on the fourth of February.

B: '**WHERE** is the place? **WHERE** we meet?'

(4) PJM:

IX<sub>[LIGHT]</sub> **DISTURB** GLASSES CL:**SHINE** SIGN CL:**SHINE** **DISTURB** IX<sub>[LIGHT]</sub> @

CL:**SHINE** SIGN CL:**SHINE** SIGN CL:**SHINE** EYES

'This light **DISTURBS** me, it **REFLECTS** in my glasses when I'm signing. It reflects when I'm signing, reflects when I'm signing, shining into my eyes.'

(5) **GO** LANGUAGE GERMAN LANGUAGE GERMAN || CL: **ATTEND** LANGUAGE GERMAN **LEARN**

'I have German classes, German classes. I'm attending German classes to learn it.'

(6) **SATURDAY** FREE IX<sub>1</sub> || **SATURDAY** SIXTH FEBRUARY SIXTH FEBRUARY **SATURDAY**

'I'm free on Saturday. Saturday the sixth of February, sixth of February. Saturday'

(7) **HAMBURG**<sub>1</sub> PLACE **HAMBURG**<sub>1</sub> LEAVE **HAMBURG**

'I went to **HAMBURG** [a PJM sign], to Hamburg [a DGS sign].'

(8) CL:**GO** CL:**BABY'S\_PACIFIER** SHEEP CL:**ANIMAL\_WALK** CL:**BABY'S\_PACIFIER** CL:**ANIMAL\_WALK**, **DOG**<sub>1</sub> **DOG**<sub>2</sub> **WATCH** **TAKE\_CARE** **WALK** **NORMALLY** CL:**TAKE\_STH\_UNDER\_ARM**.

'A little sheep with a baby's pacifier is walking, walking with a baby's pacifier but a dog (signing on the neck), a dog (signing on the right leg) observes everything and takes care of the sheep by grabbing it.'

## References

- Lillo-Martin, D. & de Quadros, R.M. 2008. Focus constructions in American Sign Language and Língua de Sinais Brasileira. In: Quer, J. (ed.), *Signs of the time. Selected papers from 71SLR 8*. Hamburg: Signum, 161-176.
- Kimmelman, V. 2011. Doubling in RSL and NGT; looking for a unified explanation. Manuscript, University of Amsterdam.
- Sze, F. 2008. Topic constructions in Hong Kong Sign Language. Paper presented at the 12th Symposium on Contemporary Linguistics, Central China Normal University, Wuhan, China.
- Šamaro, E.J. 2008. Dublirvanie predikata v diskurse ruskogo žestovogo jazyka (Doubling of predicates in Russian Sign Language discourse). Term paper, Moscow State University.
- Aijmer, K. & Stenström, A.-B. 2004, *Discourse Patterns in Spoken and Written Corpora*, Amsterdam: Benjamins.

## Eva Flanderková, Andrea Hudousková, and Barbara Mertins

Department of Linguistics, Charles University; Institute of Czech Studies, Charles University; German as a Foreign Language Philology, University Heidelberg, Germany  
eva.flanderkova@saga.cz; a.hudouskova@seznam.cz; mertins@idf.uni-heidelberg.de

### Does the Trace Deletion Hypothesis hold for Czech?

In this talk we will present and discuss the results of an experiment testing the validity of the Trace Deletion Hypothesis (Grodzinsky 1989, 490) in Czech. The Trace Deletion Hypothesis (henceforth TDH) given in (1) was proposed to account for a receptive syntactic deficit in Broca's aphasics that involves structures containing transformational operations.

- (1) (a) TDH: Traces are deleted from Broca's aphasics' syntactic representations.
- (b) Default Principle: Phrasal constituents with no  $\theta$ -role are assigned one by default, by linear considerations (NP<sub>1</sub>=Agent) (Grodzinsky 2000, 7).

The assumptions in (1) aim at capturing aphasics' chance performance in structures with a constituent moved from its thematic base position to the subject position or higher. In the current study, we investigated six Czech patients with Broca aphasia. The focus was on their comprehension of reversible passive structures, such as in (2).

- (2) Chlapec je pošťuchován dívkou.  
boy<sub>NOM</sub> is teased<sub>PTC-PASS</sub> girl<sub>INSTR</sub>  
"The boy is teased by the girl."

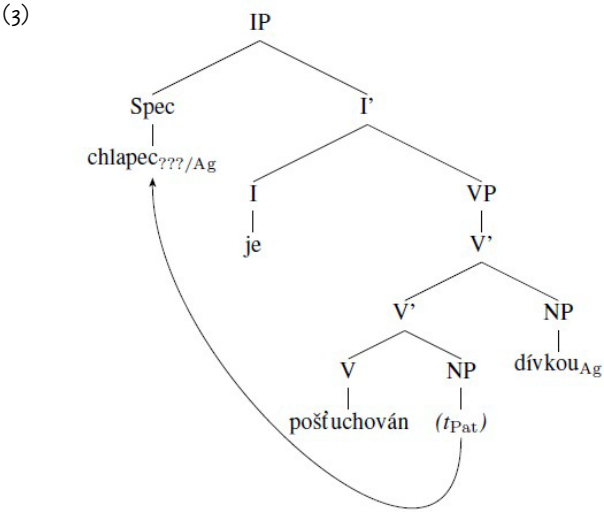


As shown below in (3), in the agrammatical representation the derived subject *chlapec* is not linked to any  $\theta$ -role, as the trace in the thematic base position was deleted. Consequently, the structure contains two NPs with an Agent  $\theta$ -role, one of them being assigned syntactically and the other due to the Default Principle (1b). Since Broca's aphasics seem to have intact knowledge of the argument structure, they are forced to guess the distribution of the Agent and the Patient  $\theta$ -roles, which results in the chance interpretation.

The results of our experiment, however, do not support the THD-proposal: Out of six tested subjects, only one performed at chance. The overall error rate for reversible passive structures in Czech was 33,34 %, which corresponds to an above-chance performance.

The validity of (1) is called into question also by the recent development of the generative theory itself. In our talk it will be argued that the minimalist framework does not deny the TDH, based on the GB theory. Yet, the validity of the Default Principle (1b) is disputable, since it gives bad predictions in combination with the currently accepted Predicate Internal Subject Hypothesis (cf. Larson 1988, Koopman & Sportiche 1991). If the Default Principle were abandoned, as suggested by Newmeyer (2000), Piñango (2000) and Beretta & Munn (1998), the implications of the TDH could be retained even within the minimalist framework.

To conclude, the Czech passive data do not confirm the validity of the TDH. Furthermore, the Default Principle seems implausible on both empirical and theoretical sides. However, to understand the general principles underlying agrammatism, more experimental and importantly, more contrastive work needs to be done.



## References

- Beretta, Alan, and Alan Munn. 1998. „Double-Agents and Trace-Deletion in Agrammatism.“ *Brain and Language* 65 (3): 404–421.
- Grodzinsky, Yosef. 2000. „The neurology of syntax: Language use without Broca's area.“ *Behavioral and Brain Sciences* 23 (1): 1–71.
- Koopman, Hilda, and Dominique Sportiche., 1991. „The position of subjects.“ *Lingua* 85 (2–3): 211–258.
- Larson, Richard K. 1988. “On the Double Object Construction.” *Linguistic Inquiry* 19 (3): 335–391.
- Newmeyer, Frederick J. 2000. „Agent-assignment, tree-pruning, and Broca's aphasia.“ *Behavioral and Brain Sciences* 23 (1): 44–45.
- Piñango, María M. 2000. “On the proper generalization for Broca's aphasia comprehension pattern: Why argument movement may not be at the source of the Broca's deficit.” *Behavioral and Brain Sciences* 23 (1): 48–49.

## Marcin Fortuna

Ludwig Maximilian University of Munich, Germany  
marcin.fortuna@lipp.lmu.de

## The interrelationship of the headedness of vowels and consonantal phonotactics

The talk aims at an explanation of some aspects of Icelandic word-initial and word-internal phonotactics. The adopted theoretical model will be a variant of Strict CV, which combines insights of the models practiced by Scheer (2004, 2012) and by Cyran (2003, 2010). The model does not use Proper Government and forms clusters by means of two interconsonantal relations: Rightward Interonset Government (RIO) for branching onsets and Leftward Interonset Government (LIO) for coda-onset clusters.

Scheer (2004) proposes that some languages are equipped with an empty CV which is distributed at the left edge of words. These languages obligatorily display #TR-phonotactics, i.e. consonant clusters at the left edge are always of rising sonority. Icelandic fulfills this criterion (if the notorious /s/-clusters are disregarded), along with other criteria of the existence of the initial CV (non-alternating first vowel, strength of the initial consonants; see Scheer (2012)). But despite the regular sonority rise in the left edge clusters, in many cases it is not as steep as it could be expected from a canonical TR-language: sequences of two sonorants are attested, e.g. /mj/ (*mjólk* ‘milk’), /rj/ (*rjómi* ‘cream’) and /lj/ (*ljós* ‘light’). Even though one could be tempted to describe these clusters as single palatalized segments, note that

they block tonic lengthening word-internally, i.e. behave like coda-onset clusters (e.g. *velja* ‘choose’ or *berja* ‘strike’ display short nuclei on the surface). The word-internal situation also does not confirm the syllabic status of many obstruent+sonorant clusters, like /k<sup>h</sup>n/, /k<sup>h</sup>l/ or /p<sup>h</sup>l/, all of which occur word-initially, but are not syllabified as branching onsets within a word (Gussmann 2003). They always surface with preaspiration and a short vowel to their left. The only clusters which syllabify as branching onsets word-internally are sequences of one of the strongest consonants /p<sup>h</sup>, t<sup>h</sup>, k<sup>h</sup>, s/ followed by one of the weakest sonorants /j, v, r/.

Another fact about Icelandic phonology is that nuclei in initial syllables can host a much wider array of contrasts than other syllables. There are 13 nuclei (8 monophthongs and 5 diphthongs) which may occur word-initially. Non-initial syllables may host only one of the three simplest nuclei /ɪ, a, ʏ/.

It will be proposed that all initial nuclei are obligatorily headed, whereas all non-initial nuclei obligatorily headless. This representational difference between nucleus types will be argued to be responsible for the patterns of consonantal phonotactics described above. It constitutes a development of Cyran’s CSL model, whose main claim is that strong nuclei are typically able to license more than weaker (e.g. reduced) nuclei. It will be argued that headed nuclei have a much bigger licensing potential than headless nuclei. Headless nuclei can license only the “easiest” branching onsets, with a big rise in sonority, e.g. *söttra* [‘sœ:t<sup>h</sup>ra] ‘slurp’. But when a cluster like /p<sup>h</sup>l/ or /lj/ is present in the input, a headless nucleus is not strong enough to license a RIO relation in it. Therefore, the cluster is syllabified as a coda-onset cluster, i.e. LIO is established instead. The preceding nucleus emerges as short, e.g. *epli* [‘ɛhplɪ] ‘apple’. But the same cluster followed by a headed vocalic expression, which is a much better licenser, can easily contract RIO, e.g. *plástur* [‘p<sup>h</sup>laustʏr] ‘bandage’.

A peculiarity of the proposed model is that empty nuclei enclosed in RIO do not lose their licensing abilities. This means that the /p<sup>h</sup>/ in *plástur* can be still licensed to establish LIO with the C-position of the empty CV marking the morphosyntactic boundary at the left edge. This is the only way to satisfy its ECP in a model deprived of Proper Government.

It will be also argued that non-initial vowels in loanwords can be headed, unlike their native peers. The evidence comes from their bigger licensing abilities. For instance, the loanword *Afrika* ‘Africa’ is pronounced as [‘a:frika], i.e. with a long vowel, even though /fr/ does not belong to the inventory of word-internal branching onsets. This effect is due to the presence of a strong licenser, the headed /i/ {ɪ}, in the second syllable. Also, loanwords often possess complex segments in the intervocalic position which are banned from the native layer of vocabulary. For instance, Southern Icelandic does not allow aspirated plosives intervocalically –

underlying *líta* /'li:t<sup>h</sup>a/ 'look' is simplified to ['li:ta]. This process does not apply to loanwords, such as *Ítalía* 'Italy', and *tópas* 'topaz', which are pronounced as ['i:t<sup>h</sup>alija], and ['t<sup>h</sup>ɔ:p<sup>h</sup>as]. Underapplication of deaspiration can be also attributed to the headedness of the vowel in the second syllable. The structure of /a/ in *líta* is { A}, whereas the /a/ in loanwords is {A}. The talk will include more examples of discrepancies between the licensing properties of headed and headless nuclei in Icelandic.

## References

- Árnason, Kristján. 2011. *The Phonology of Icelandic and Faroese*. Oxford: Oxford University Press.
- Cyran, Eugeniusz. 2003. *Complexity Scales and Licensing Strength in Phonology*. Lublin: KUL.
- Cyran, Eugeniusz. 2010. *Complexity Scales and Licensing in Phonology*. Berlin: Mouton de Gruyter.
- Gussmann, Edmund. 2003. Are there branching onsets in Modern Icelandic? In Stefan Ploch (ed.), *Living on the Edge. 28 papers in honour of Jonathan Kaye*. Berlin: de Gruyter.
- Scheer, Tobias. 2004. *A Lateral Theory of Phonology. Volume I: What Is CVCV, and Why Should It Be?* Berlin: Mouton de Gruyter.
- Scheer, Tobias. 2012. *Direct Interface and One-Channel Translation. A non-diacritic theory of morphosyntax-phonology interface*. Berlin: Mouton de Gruyter.

Ludovico Franco<sup>1,2</sup>, M. Rita Manzini<sup>2</sup>, and Leonardo M. Savoia<sup>2</sup>

<sup>1</sup>CLUNL, Lisboa; <sup>2</sup>Università di Firenze

franco.ludovico@gmail.com; rmanzini@unifi.it; lsavoia@unifi.it

## Linkers are not 'possession markers'

In many languages, a linker element is inserted between a noun and its modifying adjectives or genitive complement. The *ezafe* of Iranian languages (e.g. Kurdish) is generally taken to be such a linker. The Albanian article has the same distribution observed for the *ezafe*, before adjectives and genitives. A more restricted distribution characterizes other languages of the Balkan Sprachbund (e.g. Aromanian). Various construals of linkers are found in the formal literature: as copulas (den Dikken & Singhapreecha 2004), as case licensors (Larson & Yamakido 2008), as means for identity avoidance (Richards 2010). Koontz-Garboden & Francez (2010) propose that linkers semantically licence the possession relation. We argue that Balkan and Iranian languages provide arguments against such treatments; in particular we

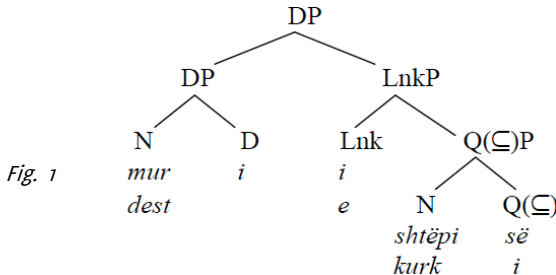
exclude that it is the linker that introduces the elementary possession predicate. The oblique case -co-occurring with the linker- seems to be responsible for that (cf. (1)).

- (1) a. *mur-i i shtëpi-së* (Albanian)  
 wall-the Lnk house-obl.f.def 'the wall of the house'  
 b. *dest -e kurk-i/ ketjk-e* (Kurdish)  
 hand Lnk boy-obl.m/girl-obl.f 'the hand of the boy/girl'

Specifically we argue that 'possession' is a surface manifestation of the more elementary part-whole relation. Following Belvin & den Dikken (1997), we take the characterization of the latter to be a 'zonal inclusion' one. Following Manzini & Savoia (2011) we notate it as  $(\subseteq)$ . Since relational content inside DPs is generally carried by Q elements (as in generalized quantifier theory) we adopt the label  $Q(\subseteq)$  for the oblique case ending. The characterization of genitive (dative) case as  $Q(\subseteq)$  implies that the minimalist conception of case as radically uninterpretable (Chomsky 1995, 2001) is excluded, at least for obliques. Linkers in Albanian and in Iranian languages share not only the same syntactic structure [see Fig.1], but also the same range of morphological variation. Crucially, they can agree with the head noun in phi-features (1) (and case), and they are alike in that they overlap with definiteness elements, such as the inflection/postnominal determiner of Albanian (1a), or straight out demonstratives, as in Aromanian (2) (from field notes) – see also Haig's (2011) 'stand-alone' ezafe in Bahđîñ Kurmanji, effectively a demonstrative.

- (2) *fet-a ats-e mar-e* (Aromanian)  
 girl-f.non-obl.def that-f big-f 'the big girl' / '\*that big girl'

We argue that what determiners and linkers have in common is that they both satisfy argument slots. We adopt the analysis, fairly standard in the literature (cf. Higginbotham, 1985; Williams, 1994), whereby nouns are predicates and have an argumental slot (called the R-role). The R-role is satisfied by the prenominal determiner in English (French, etc.). In the genitive structures in Fig. 1, languages like Albanian or Kurdish require a saturation of the external argument of  $Q(\subseteq)$  by the linker Lnk, now understood as a D. Thus the pre-genitival article *i* of Albanian, or the Kurdish ezafe *e*, provide an inflectional-level lexicalization of the possessum, ultimately lexicalized by the head noun of the whole D.



## References

- Belvin, Robert, and Marcel den Dikken, M., 1997. There, Happens, To, Be, Have. *Lingua* 101: 151-183.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In *Ken Hale: A Life in Language*, edited by Michael Kenstowicz, 1-54. Cambridge, MA: MIT Press.
- Dikken, Marcel, den, and Pomsin Singhapreecha. 2004. Complex Noun Phrases and linkers. *Syntax* 7: 1-54.
- Haig, Geoffrey. 2011. Linker, relativizer, nominalizer, tense-particle: On the Ezafe in West Iranian. In *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, edited by Yap, Foong Ha, Karen Grunow-Hårsta and Janick Wrona, 363-390. Amsterdam: John Benjamins.
- Higginbotham, James. 1985. On semantics. *Linguistic Inquiry* 16: 547-621.
- Koontz-Garboden, Andrew, and Itamar Francez. 2010. Possessed properties in Ulwa. *Natural Language Semantics* 18: 197-240.
- Larson, Richard K., and Hiroko Yamakido. 2008. Ezafe and the deep position of nominal modifiers. In *Adjectives and adverbs. Syntax, Semantics, and Discourse*. Edited by Louise McNally, and Christopher Kennedy, 43-70. Oxford: Oxford University Press.
- Manzini, M. Rita, and Leonardo M. Savoia. 2011. Reducing 'case' to denotational primitives: Nominal inflections in Albanian. *Linguistic Variation* 1: 76-120.
- Richards, Norvin. 2010. *Uttering Trees*. Cambridge, MA: MIT Press.
- Williams, Edwin. 1994. *Thematic Structure in Syntax*. Cambridge, MA: MIT Press.

## Gustavo Andrade Nunes Freire

Universidade Estadual de Campinas (UNICAMP)/University of Wisconsin - Milwaukee  
gus\_freire@hotmail.com

### **Sentential Complements of Perception and Causative verbs: The interface between Language Acquisition and Theory of Mind**

This work investigates, from the Generative Grammar framework (Chomsky 1995, 2005), the linguistic acquisition of sentential complements to perception and causative verbs in Brazilian Portuguese and English and their interaction with the acquisition of Theory of Mind (Wellman 1990, deVilliers 2007).

The non-agentive perception verbs *see* and *hear* not only name the nature of the information obtained (visually or auditory perceived, inferred, or narrated), but they also linguistically encode notions related to the speaker's knowledge and belief about the way a certain state of affairs in the world is perceived (seeing/hearing directly, seeing evidence for an event, hearing from someone) (Aksu-Koç 1988). The

periphrastic causative verbs *make* and *let* are closely related to the causative modalities and encode notions of intention and volition (whether in the subject of the main clause or in the subject of the embedded sentence). Such constructions can assume various different meanings depending on the causative modality in play – intended, unintended, obligated, omitted, permitted, coerced, controlled, accidental, etc. (Shibatani 1975), which are attested in adult grammar. In order to investigate child grammar for these phenomena for each verbal type, we manipulated certain individual event features, framed them into short stories and tested a total of 95 children acquiring English and 95 children acquiring Brazilian Portuguese, between the ages of 4 and 9 years-old.

The results for the perception verbs reveal that children struggle when they are visually presented with the resulting event (objective clues) and questioned about how they reached such a conclusion (subjective clues). In other terms, in the interaction of linguistic and perceptual cues, it is difficult to *linguistically* deny what is, for example, *visually* attested (Freire 2007). Our results suggest that children are initially sensitive to the objective clues and only later can operate both types of clues in an adult manner. For the verbs *make* and *let*, the experimental results reveal that children understand their possible meanings at different stages. The verb *let*, when tested for the meanings “allow” and “not to prevent”, revealed that children can only understand the latter meaning once the first meaning is acquired. There is a tendency, in all ages, to adequately refer to situations in which the observed actions do not coincide with the expressed volition of causing subjects, such as when a parent wants their child to study and he does not obey or when a permission is given in terms of a “renunciation”, i.e. a permission given by failure, by no hindering.

While the understanding of perception verbs reveals how the child linguistically encodes the state or the manner of acquisition of knowledge (evidentiality), understanding the causative verbs demonstrates the child's ability to take into account the intention of the subject of the situation that the proposition describes, be it a possible or an actual situation. The study of both verbs contributes to the knowledge of how the human mind works and encodes what is perceived and the causal relationships that are established.

## References

- Aksu-Koç, Ayhan. 1988. *The acquisition of aspect and modality: The case of past reference in Turkish*. Cambridge: Cambridge University Press.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge: The MIT Press.
- Chomsky, Noam. 2005. “Three factors in language design”. *Linguistic Inquiry* 36(1): 1-22.
- de Villiers, Jill. 2007. “The interface of language and Theory of Mind”. *Lingua* 117(11): 1858-1878.

- Freire, Gustavo A. N. 2007. *Verbos perceptivos e causativos: complementação infinitiva, aspectos sintáticos, semânticos e de aquisição*. (MA in Linguistics) Florianópolis: UFSC.
- Shibatani, Masayoshi. 1975. *A linguistic study of causative constructions*. Bloomington: Indiana University Press.
- Shibatani, Masayoshi. 2001. *The grammar of causation and interpersonal manipulation*. Amsterdam: John Benjamins.
- Wellman, Henry. 1990. *The child's Theory of Mind*. Cambridge: The MIT Press.

## Paula Roberta Gabbai Armelin

Queen Mary University of London/ University of São Paulo  
 p.r.gabbaiarmelin@qmul.ac.uk

### **Classifying nominals in Brazilian Portuguese: a syntactically unified account for Gender and Inflectional Class**

Nominals in Brazilian Portuguese (BP), as in many other Romance languages, are divided in different inflectional classes according to the non-stressed vowel which completes the Root. Nominals in BP are also divided into two different gender groups: masculine and feminine. Although default patterns are identified in the relation between gender and nominal classes (most of nominals ended in *-a* is feminine, while most of nominals ended in *-o* is masculine), inflectional class and gender information do not coincide: it is not possible to derive the form of the theme vowel based on gender information and vice-versa (cf. table 1).

Given the disjunction between gender and inflectional class, the puzzle is to find the limits between these features. In this work, based on a syntactic view of word formation (Halle & Marantz, 1993; Borer, 2003 and much subsequent work), it is proposed that gender and class are not distinct information: they occupy the very same place in the syntactic structure, the gender head (Gdr). It is proposed that Gdr is part of the extended projection of the noun and it is responsible by triggering agreement between the noun and its modifiers. In non-derived nominals, the Gdr and the Root are in a very local relation and the phonological exponence of the former may determined by the later. In this sense, the feature [masculine] on the Gdr head has the default exponence *-o*, but it can be Root determined, while the feature [feminine] has the default exponence *-a*, but it may be also Root determined. Possible Root determination of the phonological exponene of Gdr captures the unpredictability of the final vowel. The spell-out possibilities on D, however, are restricted to the default: it is unambiguously mapped to *-o*, if the Gdr feature is [masculine] or unambiguously mapped to *-a*, if the Gdr hosts feature [feminine]. It is



also proposed that the Gdr head may host a pair of features {[masculine],[feminine]}. The feature [masculine] or [feminine] in isolation is uninterpretable, but the pairing {[masculine],[feminine]} is interpretable. It is exactly this pairing specification on the Gdr head that generates the gender interpretation. The intuition behind that is that interpretable gender in PB is always related to the formation of pairs. Interestingly just one of the members of the pair will be phonologically realized, but the consequence of our system is that the no realized form is always in the background. On the other hand, in isolation, the feature [masculine] or the feature [feminine] is uninterpretable and creates what is traditionally known as inflectional class.

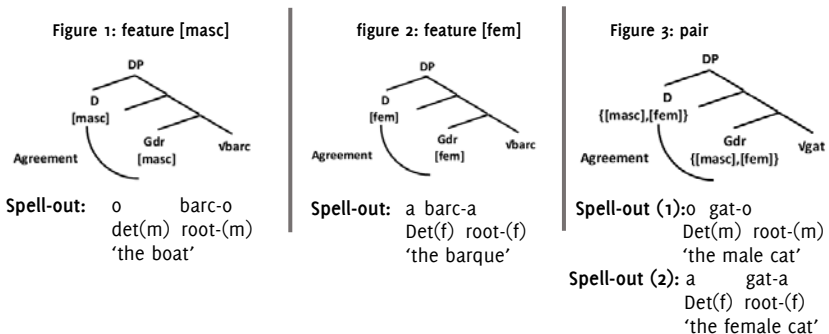
The immediate consequence of this system is that gender and inflectional class can be considered neither a Root/stem feature (against Embick & Halle, 2005; Alexiadou & Müller, 2005), nor stem stored (against Bermudez-Otero, 2012). This is a welcome result given that, in principle, any Root in BP may be combined with either [masculine] or [feminine] in the Gdr head, certainly with interpretation effects (like animacy, for example), but with no risk of crashing the derivation. The only Root specified element in our system is the phonological exponence of the Gdr head. This is a natural result in a system as proposed in Borer (2005a, 2013) in which the Root constitute by definition reference to specific phonological requirements.

Table 1:

Class	Masculine	Feminine
-o	livr-o ('book'), carr-o ('car')	libido ('libido'), tribo ('tribe')
-a	planet-a ('planet'), mapa ('map')	caverna ('cave'), casa ('house')
-e	pente ('comb'), dente ('tooth')	mente ('mind'); lente ('lens')
∅	mar ('sea'), café ('coffee')	flor ('flower'), mão ('hand')

Table 1 – Gender and Theme Vowel in Brazilian Portuguese

Figures 1, 2 and 3: simplified illustration of the system



### Selected references:

- Alexiadou, Artemis, and Gereon Müller. 2005. Class Features as Probes. Ms., Universität Leipzig / Universität Stuttgart.
- Bermúdez-Otero, Ricardo (2013). The Spanish lexicon stores stems with theme vowels, not roots with inflectional class features. *Probus* 25(1): 3-103.
- Borer, Hagit. 2003. Exo-skeletal vs. endo-skeletal explanations: Syntactic projections and the lexicon. In *The nature of explanation in linguistic theory*, ed. John Moore and Maria Polinsky, chapter 2. CSLI.
- Borer, Hagit. 2005a. In *Name Only: Structuring Sense*, Vol. I. Oxford: Oxford University Press.
- Borer, Hagit. 2013. *Taking Form: Structuring Sense*, Vol. III. Oxford: Oxford University Press.
- Embick, David and Morris Halle. 2005. On the Status of Stems in Morphological Theory. In *Romance Languages and Linguistic Theory 2003*, ed. T. Geerts, I. van Ginneken and H. Jacobs, Amsterdam-Philadelphia: John Benjamins, 37-62.
- Halle, Morris and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. In Ken Hale and Samuel Jay Keyser, eds. *The View from Building 20*. Cambridge: MIT Press. 111-176.

## Jovana Gajic

Georg-August-Universität, Göttingen  
jovana.gajic@stud.uni-goettingen.de

### The n-words paradox: universals or existentials?

In strict Negative Concord languages, such as Serbian, n-words usually only appear with clausemate sentential negation regardless of their position and they can be accumulated in one clause, always yielding the reading of one single logical negation. Some approaches treat all n-words as negative quantifiers (Haegeman & Zanuttini 1996, De Swart & Sag 2002), whereas others take them as a special instance of Negative Polarity Items, both in an indefinite/existential incarnation (Laka 1990, Ladusaw 1992) and in a universal one (Giannakidou 2000). Both sentential negation and its combination with an n-word are characterized as anti-additive environments, i.e. they fulfil the de Morgans's equivalence which states that a disjunction in the scope of negation is equivalent to a conjunction scoping over negation. Therefore, an n-word occurring in a simple negative sentence can be interpreted both as a narrow-scope existential ( $\neg\exists x.P(x)$ ) and as a wide-scope universal ( $\forall x.\neg P(x)$ ).

Shimoyama (2011) showed that the insertion of an adverbial quantifier between negation and an n-word breaks up the anti-additive context and sheds light on the quantificational status of Japanese n-words, pointing towards a wide-scope

universal analysis. Equivalent tests, using Serbian counterparts of adverbs 'usually', 'mostly' and 'often', seem to confirm this conclusion:

- (1) a. **Niko** od studenata *obično nije* odlazio na časove.  
 n-person of students<sub>GEN</sub> usually not<sub>AUX,3SG</sub> go to classes<sub>LOC</sub>  
 b. 'For every student x, it was usually the case that x didn't go to classes' [ $\forall > Q \neg$ ]  
 c. \*'It was usually not the case that a student went to class' [ $Q \neg \exists$ ] = [ $Q \forall \neg$ ]
- (2) a. Marija *ne* posećuje **nikoga** često.  
 Marija not visit<sub>3SG, PRES</sub> n-person<sub>ACC</sub> often  
 b. \*'It is not the case that often, Marija visits some or other person' [ $\neg Q > \exists$ ]  
 c. 'There was no person such that Marija visited him or her often' [ $\forall \neg Q$ ] = [ $\neg \exists Q$ ]

The relevant wide-scope universal reading in (1b) is available even in contexts in which it is not entailed by the reading in (1c). In parallel, the narrow-scope-existential-only reading (2b) is rejected for the sentence in (2a), unless entailed by (2c). However, Shimoyama effects are not conclusive - in Serbian, it is not possible to obtain the universal reading (3b) once the n-word is put in the object position (3a), whereas this hasn't been tested for Japanese.

- (3) a. Marija *obično ne* posećuje **nikoga**.  
 b. \*'For every x, it is usually the case that Marija doesn't visit x' [ $\forall > Q \neg$ ]  
 c. 'It is usually not the case that Marija visits someone' [ $Q \neg \exists$ ] = [ $Q \forall \neg$ ]

Importantly, in contrast to the Shimoyama effects, the split-scope effects (Penka 2010), when necessity modals are used as interveners, provide evidence for a narrow-scope existential reading of n-words in Serbian ( $\neg > \Upsilon > \exists$ ), in both subject (4b) and object positions (4a).

- (4) a. Ne *moraš* **nikoga** da podmitiš. b. **Niko** *ne mora* da ode.  
 not have-to<sub>2SG</sub> n-person<sub>ACC</sub> that bribe<sub>2SG</sub> n-person<sub>NOM</sub> not have-to<sub>3SG</sub> that leave<sub>3SG</sub>  
 'It is not required that you bribe someone' 'It is not required that someone leaves'

Thus, we reach a paradox: there is evidence both for the narrow-scope existential (4) and for the wide-scope universal (1,2) analyses of n-words in Serbian. Unless they are truly ambiguous (Herburger 2001), the doubt is cast on the diagnostics. The results show that the Shimoyama tests are not telling for Serbian, since there is no wide-scope interpretation for n-words in object position, and the universal-like effects seem not to be due to the inherent properties of n-words, but to some other factor, such as their position in the structure or the contextual instability of quantificational adverbs employed in the tests.

## References

- De Swart, Henriette & Sag, Ivan. 2002. "Negative Concord in Romance". *Linguistics and Philosophy* 25: 373-417.
- Giannakidou, Anastasia. 2000. "Negative... Concord?". *Natural Language and Linguistic Theory* 18: 457-523. Kluwer Academic Publishers.
- Haegeman, Liliane & Zanuttini, Rafaella. 1996. "Negative Concord in West Flemish". In A. Belletti, and L. Rizzi (eds): *Parameters and Functional Heads. Essays in Comparative Syntax*. 117-179. Oxford: Oxford University Press.
- Herburger, Elena. 2001. "The Negative Concord Puzzle Revisited". *Natural Language Semantics* 9: 289-333. Kluwer Academic Publishers.
- Ladusaw, William. 1992. "Expressing Negation". In the Proceedings of SALT II, eds. Barker, C. & Dowty D. Columbus: Ohio State University Department of Linguistics.
- Laka, Itziar. 1990. "Negation in syntax: On the nature of functional categories and projections". MIT PhD Thesis.
- Penka, Doris. 2010. *Negative Indefinites*. Oxford University Press.
- Shimoyama, Junko. 2011. "Japanese indeterminate Negative Polarity Items and their scope". *Journal of Semantics* 28(4):413-50.

## Carmen Gallar Sánchez

ILLA- CSIC, Spain

carmen.gallar@cchs.csic.es

## Labels and locality: a reverse PF consequence

**Aim:** In this work I claim that (adjunct) non labeled constituents suppose an uncertain domain for locality. This perspective on adjuncts can account straightforwardly for ambiguous binding dependencies.

**Theoretical background:** Taking Bare Phrase Structure (BPS) as the implementation of a minimalist linguistic theory, Hornstein & Nunes (2008) and Hornstein (2009) divide *Merge* into two separate operations: *Concatenation* + *Labeling*. *Concatenation* assembles two linguistic atoms while *labeling* turns them into a single (complex) atom, by projecting one of its members. They further propose that adjuncts only *concatenate*. This allows them to coherently fit traditional properties of adjuncts in a BPS design of language (eg. bar level preservation under a relational perspective as the one assumed in BPS, which is conceptually not tenable under other adjunct proposals (Chomsky 1995)). They can also account for the syntactic behavior of adjuncts in VP ellipsis and focus.

**The proposal:** This line of reasoning can be argued to have PF consequences. I pursue the idea that, although there is evidence that adjuncts are syntactically internal to a phase (1), (2), by virtue of not being labeled they are linearised at the edge of the phase where they belong.

- (1) a. *He* smiled when *John* opened the box
  - b. When *John* opened the box, *he* smiled
- (2) a. John observed *her* when *Mary* opened the box
  - b. When *Mary* opened the box, John observed *her*

While (1a) is a regular Condition C effect (the (subject) pronoun *-he* cannot share reference with an r-expression it c-commands *-John-*), the same sentences, with the adjunct fronted, (1b), poses no problem for coreference. This has been traditionally analysed as a movement effect, but adjuncts do not move (unless they involve an operator (Chomsky 1995:48)). (2) proves the position where the adjunct is introduced: given that in (2a) the internal argument (IA) *her* and *Mary* may corefer, the pronoun cannot c-command the r-expression. I conclude that the adjunct configurations in (1)m (2) are identical: they are inserted over IA and under the subject. Their linearization sites, instead, are coincidental with the edge of their phase (initial or final), which has consequences for interpretation. ((1a) vs. (1b) - crucially subject to a constraint not related to locality).

This being the case, unlabeled constituents that are pronounced where two phase limits converge can be computed as belonging to one phase or another. This work is in line with Barker (2012), who proves that linearization matters when it gets to interpreting quantifier scope relations. In configurations where locality is a central issue, this ambiguity becomes obvious (3):

- (3) [CP[vP John heard noises behind himself]/ behind him]

The example in (3) breaks down the binding complementarity held between anaphors and pronouns: while the former can only have a local antecedent, the latter can only have an anti-local antecedent. The convergence of the (standard) phase limits for CP and vP, precisely where the adjunct is linearized, immediately licenses a pronoun or an anaphor respectively.

**Further extensions:** If lack of labels triggers difficulties to evaluate locality, this may affect movement from within unlabeled constituents. Given that their locality domain cannot be unambiguously stated, chains formed from their inside cannot be assured to fall under the Minimal Link Condition, forcing unlabeled constituents to be islands.

## References

- Barker, Chris. 2012. Quantificational binding does not require-command. *Linguistic inquiry* 43 (4). 614- 633.

- Chomsky, Noam. *The Minimalist Program*. Cambridge/ MA: The MIT Press.
- Hornstein, Norbert. 2009. *A Theory of syntax. Minimal Operations and Universal Grammar*. NY: Cambridge University Press.
- Hornstein, Norbert & Jairo Nunes. 2008. Adjunction, Labeling and bare Phrase Structure. *Biolinguistics* 2 (1). 57-86.

## Ljudmila Geist

University of Stuttgart/Göttingen, Germany  
Ljudmila.Geist@ling.uni-stuttgart.de

### Reduced Referentiality and Event Dependency

In Russian, the canonical case of direct objects is Acc(usative). However, under sentence negation, the direct object can occur in the Gen(itive) case (1). It has been assumed that Gen under negation (henceforth Gen Neg) indicates low individuation or non-specific reference, while Acc indicates higher individuation and specific reference (Mustajoki & Heino 1991, Paduceva 2006, among others). Partee & Borschev (2007) and Partee et al. (2012) suggest a unified analysis of all occurrences of Gen Neg in terms of semantic type and introduce the Property-Type Hypothesis for Gen NPs as in (2). Following van Geenhoven (1998) they assume that property-type NPs are combined with the verb via the operation of semantic incorporation (3), in which the verb provides existential closure for existential binding of the variable of the property-type NP. However, there is at least one argument, also mentioned by Partee & Borschev (2007) themselves, that casts doubt on the Property-Type Hypothesis: Definite referential NPs and demonstrative pronouns, which are generally assumed to be of the argument type, can also occur in Gen (4). This is unexpected under the property-type analysis since it has been shown that semantically incorporated NPs in general cannot be definite, cf. (5). This suggests that the Property-Type Hypothesis, although successful in the analysis of non-specific NPs in Gen such as (1), cannot be straightforwardly applied to a definite DP or pronoun as in (4). I will suggest an alternative analysis which can capture the semantics of definite DPs and pronouns in Gen without assuming a shift from an argument type to a property type.

Similarly to Kagan (2013) I assume that Acc in negated sentences signals the presupposition of existence of the referent in some salient situation, and that Gen signals the absence of such a presupposition. This difference can be accounted for in a situation-semantic approach based on Kratzer (1989, 2007) going back to Barwise & Perry (1983). In situation semantics it has been assumed that not only sentences but also VPs and even DPs are interpreted relative to (possibly different)

situations understood as partial worlds, cf. the DP representation in (6). Such treatment of DPs enables the relativization of the existence of their referents to situations. Since the situation variable  $s_r$  in (6) is a pronoun, it can in principle be locally bound or remain free. I assume that the difference between the bound and the free interpretation of the situation pronoun is reflected in the case assignment Acc/Gen: Acc indicates that the situation pronoun is free and as such can receive values from the context. Gen, however, indicates that the situation pronoun is locally bound to the situation variable introduced by the verb (= the verbal event variable). This renders the DP referent existentially dependent on the event. Since the event variable is existentially bound below the sentence negation, the existential presupposition of the referent, also in the scope of negation, is suspended. Thus, the lack of existential presupposition of definite DPs and pronouns comes from their *event dependency*. Following Keshet (2008) I assume that non-specific NPs in Gen such as in (1) do not introduce a situation variable, and since they get existentially closed by the verb (as in (3)), they are also *event dependent*. Thus, the proposed analysis presents a way to unify the semantics of Gen NPs as being event dependent.

- (1) Igor'            ne polučil            pis'mo / pis'ma.  
 Igor            NEG got            letter.Acc / letter.Gen  
 Acc: 'Igor didn't get the letter.' [definite]  
 Gen: 'Igor didn't get any letter.' [indefinite non-specific]
- (2) The Property-Type Hypothesis for Russian object Gen Neg (Partee & Borschev):  
 Where Russian has a Gen/Acc alternation, if there is a semantic difference at all, then Acc preferentially represents an ordinary e-type argument, whereas a Gen NP is preferentially interpreted as property-type:  $\langle e, t \rangle$ , or  $\langle s, \langle e, t \rangle \rangle$ .
- (3) Semantic Incorporation (simplified version of van Geenhoven 1998: 132):  
 $\lambda P \lambda x \exists y. [\text{Verb}(x, y) \ \& \ P(y)]$   
 Ja ne pomnju    ètot razgovor    /èto            // ètogo razgovora / ètogo.
- (4) I NEG remember this conversation.Acc/this.Acc this conversation.Gen /this.Gen  
 'I don't remember this conversation / this.'  
 Acc: → The conversation took place.  
 Gen: → It is possible that there was no such conversation.
- (5) There is *a student* /\**the student* / \**this* in the library.
- (6) [[ètot razgovor]] :  $\lambda x. x$  is the conversation in  $s_r$

### Selected References

van Geenhoven, Veerle 1998. Semantic Incorporation and Indefinite Descriptions. Stanford: CSLI.  
 Kagan, Olga 2013. Semantics of Genitive Objects in Russian. A Study of Gen Neg and Instensional genitive Case. Dordrecht: Springer.

- Kratzer, Angelika 2007. "Situations in natural language semantics." In *Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta, Stanford: CSLI  
<http://plato.stanford.edu/entries/situations-semantics/>.
- Partee, Barbara & Borschev, Vladimir & Paduceva, Elena & Testelefs, Yakov & Janovich, Igor 2012. "The role of verb semantics in Genitive Alternations: Genitive of Negation and Genitive of Intensionality." In *The Russian Verb*, edited by A. Grøn & A. Pazelskaya, 1–29. *Oslo Studies in Language* 4(1).
- Partee, Barbara H., & Borschev, Vladimir 2007. "Pros and cons of a type-shifting approach to Russian Genitive of Negation." In *Proceedings of the Sixth International Tbilisi Symposium on Language, Logic and Computation (Batumi 2005)*, edited by B. D. ten Cate & H. W. Zeevat, 166–188. Berlin: Springer.

## Mátyás Geröcs and Lilla Pintér

Research Institute for Linguistics of the Hungarian Academy of Sciences, Hungary  
 mgerocs@gmail.com, pinter.lilla@nytud.mta.hu

### The role of Information Structure in children's interpretation of numerically modified expressions

The aim of the study is to experimentally investigate children's understanding of numerically modified noun phrases (NumNPs) in Hungarian. It has been claimed that the distinction between numerals' lower-bounded ('at least  $n$ ') and upper-bounded ('exactly  $n$ ') meaning is grammaticalized in Hungarian: if the NumNP is focused, it receives an 'exactly' interpretation, otherwise it is assigned an 'at least' semantics. We tested whether Hungarian preschoolers can make use of the information structure of the sentence to distinguish between these two readings of NumNPs.

In Hungarian focusing involves syntactic reordering in addition to prosodic highlighting: the focused constituent leaves its base position and moves to a designated position immediately preceding the tensed verb. É. Kiss (1998, 2006) labels Hungarian pre-verbal focus as identificational focus and claims that it is obligatorily assigned an exhaustive interpretation. In the case of NumNPs focusing triggers the upper-bounded reading by excluding the alternatives to the number being focused.

Previous research has shown that children are generally not sensitive to the exhaustive feature of Hungarian identificational focus (Kas-Lukács 2013). Therefore we hypothesized that if the interpretation of NumNPs is indeed determined by the information structure, then the upper-bounded ('exactly') reading would be less accessible to them.



20 children (mean age: 5;6) and 17 adults participated in our experiment. They could see 8 toy bears that had cards in front of them depicting a set of raspberries ranging from 2 to 6. Children had to give candies to the bears corresponding to the instructions given by a puppet. These were actually the test sentences, in which the numeral appeared either in (1) or out of focus (2).

(1) *Azok a macik kapjanak cukorkát, akik [NÉGY MÁLNÁT]<sub>FOC</sub> szedtek.*

‘Those bears can get a candy who picked (exactly) four raspberries.’

(2) *Azok a macik kapjanak cukorkát, akik szedtek négy málnát.*

‘Those bears can get a candy who picked (at least) four raspberries.’

If the child gave a candy only to the bears who had exactly four raspberries, then it indicated that she interpreted the numeral as ‘exactly *n*’. However, if she rewarded the bears who had more than four raspberries, too, then it indicated that she interpreted the numeral as ‘at least *n*’.

While in the case of adults the rate of upper-bounded interpretations was significantly higher when the numeral appeared in focus position ( $\chi^2 = 99.5$ ,  $df = 3$ ,  $p = .0001$ ), children consistently did not differentiate between the two readings. Contrary to our hypothesis, they always preferred the ‘exactly’ reading, regardless of the information structure of the sentence. These results suggest that in children’s grammar the information structure of the sentence has no role in determining how NumNPs are interpreted.

## References

- É. Kiss, Katalin. 1998. “Identificational focus versus information focus.” *Language* 74: 245–73.
- É. Kiss, Katalin. 2006. “Jól megoldottuk? Rosszul oldottuk meg? Az összefoglaló és a kirekesztő kifejezést tartalmazó mondatok szórendjének magyarázata.” *Magyar Nyelv* 102: 442–59.
- Kas, Bence, and Ágnes Lukács. 2013. “Focus sensitivity in Hungarian adults and children.” *Acta Linguistica Hungarica* 60 (2): 217–45.

## Ion Giurgea

The “Iorgu Iordan - Al. Rosetti” Institute of Linguistics of the Romanian Academy  
giurgeaion@yahoo.com

## Romanian adnominal locative PPs and Argument Structure

The behavior of adnominal locative PPs in Romanian, a topic not yet discussed in theoretical linguistics, allows one to draw interesting conclusions about the syntactic projection of the verb’s argument structure and about the status of locative PPs as opposed to other modifiers.

**1. The data.** Romanian adnominal locative PPs (including here both spatial and temporal location) must be preceded by an introductory element *de* 'of' (see (1)), except in complex event nominalizations (in the sense of Grimshaw (1990), see Cornilescu 2001), as in (2), and when the locative PP is quasi-argumental, specifying one of the arguments of a relation implied by the lexical-conceptual structure of the noun, see (3)a,c vs. b,d:

- (1) Cartea \*(de) pe masă e veche.  
 book-the of on table is old  
 'The book on the table is old'
- (2) interpretarea operii Aida la Covent Garden  
 performance-the opera-the.gen Aida at Covent Garden
- (3) a. podurile peste Dunăre // b. norii \*(de) peste vale  
 bridges-the above Danube clouds-the of above valley  
 c. calea ferată între București și Ploiești d. casa {dintre/\*între} copaci  
 road-the rail between Bucharest and Ploiești ouse-theof-between/between trees

Assuming that complex event nominalizations involve verbal projections (v, maybe Asp) embedded under a nominalizer head (see Borer 1994, Fu, Roeper & Borer 2001, Alexiadou 2001, Cornilescu 2001, Alexiadou et al. 2007), the absence of *de* in (2) can be explained by the fact that the locative modifies a *verbal*, rather than a nominal projection. As the PPs in (3) are quasi-argumental, we come to the following generalization:

- (4) A locative modifier inside a nominal projection must be marked by *de*.

Nevertheless, recent studies (Giurgea & Mardale 2013, Mardale 2013) have pointed out some data which appear to be exceptions to (4), concluding that there is a connection between the presence of *de* and specificity:

(i) *de* does not appear with non-specific objects of intensional verbs (see (5) vs. (6)) and verbs related to possession (see (7)):

- (5) Ion dorește o casă la munte  
 Ion desires a house at mountain  
 'Ion wants a house (which should be) in the mountains'
- (6) Ion dorește o casă de la munte  
 Ion desires a house of at mountain  
 'Ion wants a certain house, which is in the mountains'
- (7) a. Ion a cumpărat/are o casă la București. b. Ion are adresa la București.  
 Ion has bought has a house at Bucharest Ion has address-the at Bucharest

(ii) *de* can be absent with generic DPs:

- (8) Casele la București sunt scumpe.  
 houses-the at Bucharest are expensive

**2. Analysis: some new DP-external positions for PPs.** I will argue that the absence of *de* in (5), (7) and (8) does not constitute evidence against (4), but can be explained as being *is* due to the fact that the PP is external to the DP.

The contrast in (5)-(6) cannot be solved by treating *de* as a specificity marker of sorts; *de* can appear sometimes in non-specific DPs (e.g., after *vreun*, a non-specific determiner, see Farkas 2006, Fălăuş forth.) :

- (9) Nu ştiu ce reprezintă poza Ofi vreo casă de la munte.  
 not know.1sg what represents photo-the may.3sg be some house of at mountain

The generalization underlying both (5) and (7) is that locative PPs without *de* appear after objects of verbs related to possession, such as buy, look for, have; desire in (5) is to be analyzed as want to HAVE. Applying event decomposition à la Ramchand (2008), I assume that acquisition and object-taking desiderative verbs have a ResP headed by an abstract P translated as HAVE:

- (10) [lon<sub>i</sub> wants/buys [<sub>ResP</sub> PRO<sub>i</sub> HAVE a house]]

Now, (5) and (7) can be subsumed under a single syntactic property: have-predications that take weak indefinite objects allow a PP which further localizes the object (which is minimally localized by the possession relation itself, see Freeze 1992). This PP can be seen as a lower predicative layer under HAVE, similar to the predicative layer found in the strong-object-taking have:

- (11) a. Am cartea la tine.  
 have.1sg book-the at you 'My book is with you / at your place'  
 b. Le am pregătite de la ora cinci.  
 them(fpl) have.1sg prepared.fpl since hour-the five  
 'I've had them prepared since 5 o'clock'

The locative PPs in (5) and (7) do not apply to the process of buying/wanting (as in Ion a cumpărat la Bucureşti o casă 'Ion bought a house and the buying took place in Bucharest', see (12)), but to the result state (see (13)):

- (12) [<sub>VP/INITP</sub> Agent<sub>i</sub> [Locative [<sub>buy</sub> [<sub>ResP</sub> X<sub>i</sub> HAVE Theme]]]] : location of the buying event  
*Ion a cumpărat (la Bucureşti) o casă (la Bucureşti)*  
 (13) [<sub>VP/INITP</sub> Agent<sub>i</sub> [<sub>buy</sub> [<sub>ResP</sub> X<sub>i</sub> HAVE Theme Location]]]] : location of the possessum  
*Ion a cumpărat o casă la Bucureşti*

For (ii) (ex. (8)), I propose that the locative is a small-clause whose subject is coindexed with the subject of the sentence and which is attached as a specifier of the GEN operator, in what constitutes its restriction:

- (14) [ casele<sub>i</sub> [ [ X<sub>i</sub> la Bucureşti ] [GEN [sunt X<sub>i</sub> scumpe]]] →  
 [ casele λx [ [ X la Bucureşti ] [ GEN [sunt x scumpe]]]]  
 'for any x ∈ [[the houses]], if x is in Bucharest, then, in general, x is expensive'

Under these analyses, the non-specificity associated to *de*-less PPs comes from the operators that bind the situation argument of the locative predication: in (14), this is the generic operator. In (5), the operator is the modal introduced by *want*. The locative predicate is part of the description of the desired situation, which is the object of *want* (the ResP in (10)).

**3. *De* in adnominal PPs:** The specificity effect in (6) cannot be simply due to the adnominal position of the PP, because a relative clause (which cannot be attached outside the DP, because relative clauses do not modify verbal projections) allows the non-specific reading, if it has a subjunctive verb:

(15) Ion vrea o casă care să fie la munte  
Ion wants a house which sbjv be.3 at mountain

I propose that the specificity effect comes from the fact that DP-internal locative predications have an independent evaluation index (their situation variable is deictic, rather than bound by operators in the clause). The saturation of the situation slot by this free variable can be considered as the semantic contribution of *de*. As for syntax, I take *de* to introduce a reduced relative clause. From the necessary use of *de* with adnominal locative modifiers (see (4)), I conclude that locative PPs differ from other property denoting expressions (such as adjectives and individual-descriptive PPs in *with*) by not being able to combine with the N(P) by Heim & Kratzer's (1998) Predicate Modification, as direct modifiers. This indicates that they have a richer syntactic structure – they can take an event as a radically external argument (by “radically external” I mean not generated inside the extended projection), but not an individual (as opposed to intersective direct modifiers, which have a radically external argument, if we assume Predicate Modification). When they appear inside ResP with weak indefinites, they apply to the result event and not directly to the Theme.

## Giuliana Giusti and Rossella Iovino

University Ca'Foscari Venice  
giusti@unive.it; rossella.iovino@unive.it

### A Split-DP hypothesis for Latin and Italo-Romance

Lack of articles, free word order and discontinuous noun phrases in Latin are often taken as evidence for non-configurationality. In this vein, the main innovation in Romance would be the development of configurational structure (Lyons 1999, Ledgeway 2012).

**The aim** of this paper is to provide a formal analysis showing that the possible orders in Latin are not just dependent on pragmatics but are strictly controlled by syntax. **The diachronic change into old and modern Italian is to be derived by a single parameter that regards the different bundling of the features constituent of D, namely Case and Number.**

**Our proposal** is based on Giusti's (1996, 2010, 2012) hypothesis that the nominal expression (NE) has a Left Periphery, parallel to the clause (Cinque 1990, Rizzi 1997):

- (1) a. CaseP > LPP > NumberP Giusti (2012)  
 b. ForceP > TopP\* > FocP > TopP\* > FinP Rizzi (1997)

Rizzi proposes that Force and Fin are often realized in a single bundle (C). Giusti proposes that Case and Num can be bundled in a single head D.

In Latin (2a), Case and Num are bundled with N, which can be realized in any position of the extended projection, including the low D. In old and modern Italian (2b-c), Case is not bundled with N, and for this reason it is realized in the higher D. Number is redundant on Case and N. In old Italian (2b), interpretable Num is still on N, thus the low DP is projected and can attract N; in modern Italian (2c), interpretable Num is bundled with Case in the higher DP, the low DP does not project, and N remains lower:

- (2) a. [LPP [DP [Case+Num] [...]]] (Latin)  
 b. [DP [Case(+Num)] [LPP [DP [Num] [...]]] (old Italian)  
 c. [DP [Case+Num] [LPP [...]]] (modern Italian)

This proposal can account for the following facts:

I. In Latin **the demonstrative** can precede or follow a noun (3a). But in complex NEs only an adjective or a genitive complement can precede Dem (3b-c). The orders in (3d) are unattested, thereby excluding movement of a remnant (Cinque 2010, Abels and Neeleman 2012):

- (3) a. [DP ille [NP homo]] vs [LP homo [DP ille [NP homo]]] 'that man/man that'  
 b. ex [LP veterē [DP illa [FP [AP veterē] [NP disciplina]]]] (Cic. *Cluent.* 76)  
 from old that discipline  
 c. [LP [DP Caesaris] [DP hic [DP Caesaris] [[FP per Apuliam et Brundisium] cursus]]]  
 Caesar's this through Apulia and Brundisium race  
 (Cic. *att.* 8,11,7)  
 d. \*NDemA, \*NADem, \*ANDem

In old and modern Italian, Dem is always the first element in the NE. Being in complementary distribution with the article, we take it to be in the higher DP.

II. In Latin, **the position of adjectives** complies with the hierarchy of modification (Cinque 1994, Crisma 1996); N(P)-movement is optional (4a-c), as is roll-up movement (4d-e):

- (4) a. [parvulis [equestribus [proeliis]]] (Caes. *Gall.* 5,50,1) no movement  
 small horse battles  
 b. [veteres [cives [Romanos [cives]]]] (Liv. 8,11,14 partial N(P)-movement  
 old citizens Roman  
 c. [asinus [ornatos [asinus] [clitellarios [asinus]]]] (Cato *agr.* 10,1) total N-movement  
 donkeys decorated for-transport

- d. [patriis [fortunis]] amplissimis] (Cic. *Cluent.* 31) partial roll-up  
of-father richness very-large  
e. [[[equite] Romano] propinquo] (Cic. *Quinct.* 87) total roll-up  
horse-man Roman nearby

The modification hierarchy can be violated by movement of only one constituent to LPP (5):

- (5) [LPP **Plautina** [DP [longa [Plautina [fabula ]]]]] (Plaut. *Pseud.* 2) relational> size  
by-Plautus long fable

Although in old Italian N(P)-movement across relational adjectives and roll-up movement across indirect modification is established (Giusti 2010, Giorgi 2010), the position of N is still free, and can be found above a possessive (6a) or below the relational adjective (6b):

- (6) a. [DP uno [DP chavallo [AGIP suo ~~chavallo~~ [FP morello [NP ~~chavallo~~]]]] (*Libro giallo* 308, l4)  
a horse his brown  
b. [DP la [FP cittadina [NP maniera di dire]]] (*Tesoro volg.* vol4, book8, chap39, p134)  
the city-like way of saying

Neither of these possibilities is admitted in modern Italian, where N is established in an intermediate position in the modification hierarchy.

III. The **left periphery** in old Italian is below the high DP. Taking the order in (7a) to be the unmarked order, we observe the possibility of contrasting a adjective, moving it to the left of the possessive, which is the highest in the adjectival hierarchy:

- (7) a. [PP ~~ca~~<sub>DP</sub> -/ [DP *corno* [AGIP ~~tuo~~ *corno* [FP *sinistro* [NP ~~corno~~]]]]]  
with-the wing your left  
b. [PP ~~ca~~<sub>DP</sub> -/[LPP *diritto* [AGIP *suo* *corno* [FP *diritto* [NP ~~corno~~]]]]]  
with-the right his wing (Bono Giamboni, *Vegezio*, book3, chap20,

p128)

This is still the case in high registers of Italian.

IV. The existence of **discontinuous nominals**, in which a subconstituent is raised to the LP of the NE or further moved to the CP of the clause, or the middle field of the vP:

- (8) ... [LPP] \_\_\_\_\_ [DP ... [NP N [LPP] \_\_\_\_\_ [DP<sub>GEN</sub> ... [NP [XP] N]]]  
← ↑ \_\_\_\_\_ ↑

This possibility is lost in old Italian for adjectives, but preserved for possessors as also is in modern Italian. This will be related to the position of LPP w.r.t. DP in Latin vs old and modern Italian, and to the phasal nature of (possessive) DPs vs. the non-phasal nature of APs.

### References:

Abels, K. and Neeleman, A. 2012. "Linear Asymmetries and the LCA". *Syntax* 15.1:25-74.

- Cinque, G. 1990. *Types of A' Dependencies*. Cambridge (Mass.): The MIT Press.
- Cinque, G. 1994. "On the Evidence for Partial N-Movement in the Romance DP." In *Paths Towards Universal Grammar* edited by G. Cinque et. al., 85-110. Georgetown UP.
- Cinque, G. 2010. *The Syntax of Adjective*. Cambridge (Mass.): The MIT Press.
- Crisma, P. 1996. "On the configurational nature of adjectival modification." *LSRL* 25:59-71.
- Giorgi, A. 2010. "La struttura del sintagma nominale." In *Grammatica dell'italiano antico* edited by L. Renzi and G. Salvi, 275-294. Bologna: il Mulino.
- Giusti, G. 1996. "Is there a FocusP and a TopicP in the noun phrase?" *UVWPL* 6.2.
- Giusti, G., 2010. "Il sintagma aggettivale." In *Grammatica dell'italiano antico* edited by L. Renzi and G. Salvi, 593-616- Bologna: il Mulino.
- Giusti, G. 2012. "On Force and Fin, Case and Num." In *Enjoy Linguistics!* Edited by V. Bianchi and C. Chesì, 205-217. Siena: CISCL.
- Lyons, C. 1999. *Definiteness*. CUP.
- Ledgeway, A. 2012. *From Latin to Romance. Morphosyntactic Typology and Change*. OUP.
- Rizzi, L. 1997. "The fine structure of the left periphery." In *Elements of Grammar* edited by L. Haegeman, 281-337. London: Longman.

## Alexander Grosu

Tel Aviv University  
grosua@post.tau.ac.il

### A novel analysis of Transparent Free Relatives

T(ransparent) F(ree) R(ela)tive)s, e.g., *I bumped into [what seemed to be {Mary, two pillars}]*, are impressionistically distinct from F(ree) R(ela)tives) like *I ate [what you gave me]* in that the intuitively perceived 'pivot' is the boldfaced post-copular phrase, not the wh-phrase. A variety of proposals, significantly different in their details, have tried to capture this intuition by analysing the pivot as the **syntactic head** of the TFR (e.g., Kajita 1977, Wilder 1998, Riemsdijk 2006, Schlefhout et al 2004), thereby assigning **distinct structures** to FRs and TFRs. This talk will argue that any such analysis is fundamentally flawed in being unable to support a natural compositional semantic analysis, and will argue for an analysis that views TFRs as identical with FRs in their gross configurational structure, but differing from them in the following ways: [i] the wh-phrase is exclusively *what* (or a cross-linguistic counterpart), [ii] the 'trace' of what is the subject of an **equationally** construed copular construction or small clause, [iii] *what*, which is in any event the least inherently specified wh-item, is further de-specified syntactically and semantically to the extent needed to live up to its *raison d'être*, which is [iv] to denote at the intensional indices of the matrix a counterpart (Lewis 1968) of the pivot, the pivot itself being [v] construed at the indices of a necessarily present relative-internal intensional operator. [iv]-[v] imply

[vi] that the denotation of TFRs is necessarily intensional (functions from indices to something else), in contrast to FRs, which typically denote extensional objects.

My analysis views the relative minus the pivot as partly analogous to lexical intensional adjectives like *possible/fake (doctor)*. To illustrate the analysis, let  $[i, \hat{i}]$ ,  $P$ ,  $x$  be variables over, respectively, intensional indices, properties, and individual concepts (type  $\langle s, e \rangle$ ), and let  $C$  be a set of contextually salient counterpart individual concepts. The principal steps in the compositional derivation of (1) are shown in (2)-(4).

(1)  $[_{ip}$  Alex bumped into  $[_{dp} \emptyset_d$   $[_{cp}$  what seemed to be Mary]]].

(2)  $[[CP]] = \lambda x.C(x) \wedge \forall i' \in \text{seem}_i: x_i = m \quad \leftarrow \text{type } \langle \langle s, e \rangle, t \rangle$

(3)  $[[DP]] = \sigma(\lambda x.C(x) \wedge \forall i' \in \text{seem}_i: x_i = m) \quad \leftarrow \text{type } \langle s, e \rangle$

(4)  $[[IP]] = \text{Bumped-into}_i(\text{alex}, \sigma(\lambda x.C(x) \wedge \forall i' \in \text{seem}_i: x_i = m)_i)$

(4) in words: *Alex bumped into the matrix value of the unique counterpart individual concept whose value at the indices of what seemed to be the case is Mary. What* translates as an abstraction operator (its under-specification concerns only features that might prevent it from having a value identical to that of the pivot at relative-internal indices), and the definite Determiner (Jacobson 1995) targets a set of **individual concepts** (not of individuals, as in FRs), whose matrix value is not spelled out, so that an adequate fluent paraphrase of (1) is the indefinite version of *Alex bumped into {something, #the thing} that seemed to be Mary*.

It will be argued that analyses that view the pivot as the external head of the TFR (van Riemsdijk's in particular) cannot serve as the basis for a natural semantic analysis, except by resorting to Procrustean steps that amount to a *reductio ad absurdum*. It will be shown that the pivot determines neither the quantificational force nor the predicative content of the TFR, and – crucially – cannot in general be itself intensionalized to denote two distinct counterparts. In (1), for example, there are not two distinct counterparts of Mary, there are only two distinct counterparts of what Alex bumped into.

Time permitting, it will be shown that my analysis makes available a superior account of the (in)felicity of TFRs in the context *there BE -- XP*, as well as of a number of syntactic properties, in particular, the behaviour of TFRs with respect to Case-matching effects (in German).

## References:

- Jacobson, Pauline. 1995. "On the quantificational force of English relatives." In *Quantification in Natural Languages* Vol. 2, edited by Emmon Bach, Elinor Jelinek, Angelika Kratzer and Barbara Partee, 451– 486. Dordrecht: Kluwer.
- Kajita, Masaru. 1977. "Towards a dynamic model of syntax." *Studies in English Linguistics* 5: 44–66.



- Lewis, David. 1968. "Counterpart Theory and Quantified Modal Logic," *Journal of Philosophy*, 65: 113–126.
- Riemsdijk van, Henk. 2006. "Free Relatives." In *The Blackwell companion to Syntax*, edited by Martin Everaert, Henk van Riemsdijk, Rob Goedemans and Bart Hollebrandse, 338–382. Oxford: Blackwell.
- Schelfhout, Carla, Peter-Arno Coppen, and Nelleke Oostdijk. 2004. "Transparent Free Relatives." In *Proceedings of ConSOLE XII*, edited by Sylvia Blaho, Luis Vicente & Mark de Vos.
- Wilder, Christopher. 1998. "Transparent free relatives." *ZAS Papers in Linguistics* 10: 191–199. Berlin: Zentrum für Allgemeine Sprachwissenschaft.

## Bill Haddican and Anders Holmberg

CUNY-Queens College/Graduate Center; Newcastle University, Great Britain  
 bill.haddican@gmail.com; anders.holmberg@newcastle.ac.uk

### Three ways to invert object order in the double object construction

Cross-linguistic variation in passive symmetry—the (non-) availability of theme passivisation out of double object constructions (DOCs)—has mostly been explained in terms of locality (Anagnostopoulou 2003, a.o.). In languages without theme passivisation, theme-raising to T would be blocked by the intervening goal. Languages with theme passivisation would have a short theme movement to the outer spec of the projection hosting goal and theme, enabling the theme to subsequently raise to T without crossing the goal. Anagnostopoulou (2003) notes a correlation within Mainland Scandinavian between the availability of theme-goal orders in passive contexts, (1), and active contexts under object shift (OS), (2):

- (1) Boken ble gitt Jon. (2) %Jeg ga den ham ikke. (Norwegian)  
 the.book was given Jon I gave it him not

In Norwegian/Swedish which allow theme-passives, some speakers accept theme-goal orders in OS. In Danish, theme-goal orders are disallowed in both contexts. Anagnostopoulou takes this correlation as evidence that short theme movement feeds theme passivisation. The prediction is that speakers should accept (1) iff they accept (2). We test this with an acceptability judgment experiment with 500 native speakers of Norwegian. The experiment crossed object order (theme-goal/goal-theme) with context (active pre- and post-OS and passive). Results revealed no correlation in acceptability of theme-goal orders between the passive and either of the two active conditions. However, acceptability of theme-goal orders in active OS and non-OS conditions did correlate. Assuming a structure for DOCs with the goal merged above the theme, these results suggest that theme movement across the goal in active non-OS contexts feeds theme-goal orders in OS, i.e. speakers

accept the latter iff they accept the former. Importantly, theme-goal order in active non-OS contexts appears not to feed theme-goal orders in passives.

These findings indicate that there are two quite distinct routes to derive theme-goal order. In conjunction with Fox and Pesetsky's 2005 (F&P) cyclic linearization proposal this accounts for our results. (2) is derived by optional movement of the theme to an outer spec of Appl. Our results show this to be a highly marginally acceptable option in Norwegian, but when it is acceptable, the order is preserved under OS, because, following F&P, linear order is established phase by phase, and extra-phasal movement cannot permute the linear order of two syntactic objects. Theme-passivisation as in (1), on the other hand, reflects variation in whether the "extra" probe in applicative structures is located on Appl or on a linker head above ApplP: [<sub>VP</sub> v [<sub>VP</sub> V [ Lnk [<sub>AppIP</sub> Goal [<sub>AppI</sub> Appl Theme]]]]]. The linker, when present, assigns case to the goal. In passives, where v is not a probe, T will then probe and attract the theme across the goal, deriving Theme-Goal order. Confirmation for this analysis comes from Swedish, where Theme-passives are only acceptable with some bimorphemic verbs, e.g. *tilldela* 'award', *tillskriva* 'ascribe' (Holmberg & Platzack 1995), which we claim are derived by incorporation of an overt Lnk *till*, assigning case to the goal, allowing the theme to move across the goal in passives. Norwegian has an abstract Lnk, Danish lacks the Lnk option altogether. British English dialects which allow theme-goal order in active DOCs (*She gave it me*) and theme-goal order in passives (*The book was given me*) (Haddican & Holmberg 2013) instantiate a third way to invert goal and theme order: incorporation of a clitic theme *it* in v (incorporation via Agree as in Roberts 2010), an option not available in Scandinavian. As shown by H&H, this derivation again requires the Lnk structure, which explains the correlation they find between the active and the passive inversion.

**Jocelyn B. Hardman** and **Elizabeth A. McCullough**

Aarhus University, Netherlands; The Ohio State University, USA  
engjh@hum.au.dk; eam@ling.ohio-state.edu

### **Variation in phonetic-acoustic cues in Mandarin-accented English and its differential effects on intelligibility for American and Korean listeners**

The acquisition of the phonological system of a second language, especially by adult learners, is notably difficult and often characterized by a "foreign accent." Although Mandarin-accented English has been described in phonological terms, few studies

have included acoustic analyses of the vowel and consonant variation found in the accent. Furthermore, since intelligibility does not always correlate with accentedness (Derwing & Munro, 2009; Munro & Derwing, 1995), identifying the phonetic-acoustic cues that do predict intelligibility – for both native and nonnative English-speaking listeners – would shed light on how the native language (L1) of the listener might impact second language (L2) speech perception.

First, recordings were made of 10 male L1 Mandarin and 10 male L1 American English speakers reading 64 sentences in English from the Bamford-Kowal-Bench Standard Sentence Test, revised for American English (BKB-R) (Bamford & Wilson, 1979). Next, spectral and temporal analyses were made of the vowels and VOTs of the stop consonants in 146 unique key words, so that significant differences between the productions of the Mandarin and American speakers could be identified. Finally, in order to determine intelligibility, six speakers (3 L1 Mandarin and 3 L1 American English) were selected whose recordings were presented as stimuli to 18 L1 Korean and 18 L1 American English listeners in a word-recognition-in-noise experiment at a +5 dB signal-to-noise ratio. The listeners' transcriptions were logged as "correct" if the key word matched that of the written BKB-R materials or "incorrect" if there were not an exact character match. A series of mixed effects models with logistic regression were created to analyze which of the phonetic-acoustic cues were the best predictors of intelligibility.

The spectral and temporal measures will contribute to a more precise description of the systematic variation in Mandarin-accented English, and how it differs from American English on specific phonetic-acoustic measures. In addition, since global ratings of accentedness include levels of prosody above the segmental (Trofimovich & Isaacs, 2012), assessing the effects on intelligibility at the segmental and sub-segmental levels will help tease these apart from other acoustic cues higher in the prosodic hierarchy.

## References

- Bamford, John, and Ian Wilson. 1979. "Methodological considerations and practical aspects of the BKB sentence lists." In *Speech-hearing tests and the spoken language of hearing-impaired children*, edited by R.J. Bench and John Bamford, 147-187. London: Academic Press.
- Derwing, Tracy, and Murray J. Munro. 2009. "Putting accent in its place: Rethinking obstacles to communication." *Language Teaching* 42: 476-490.
- Munro, Murray J., and Tracy Derwing. 1995. "Foreign accent, comprehensibility, and intelligibility in the speech of second language learners." *Language Learning* 45: 73-97.
- Trofimovich, Pavel, and Talia Isaacs. 2012. "Disentangling accent from comprehensibility." *Bilingualism: Language and Cognition* 15 (4): 905-916.

## Georg Höhn

University of Cambridge, King's College  
gfk3@cam.ac.uk

### Unifying the semantics of unagreement and adnominal pronoun constructions

This talk argues for a syntactic and semantic analysis of unagreement (Hurtado 1985), an apparent person mismatch configuration illustrated for Spanish in (1), parallel to adnominal pronoun constructions (APCs; e.g. 'you students'), *pace* Torrego's (1996) claim that they crucially differ in meaning.

- (1) Firmamos [los linguistas] la carta.  
signed.1PL the linguists the letter

'We linguists signed the letter.' [Spanish; after Torrego 1996:114, (6a)]

I assume a functional head *Pers* in the extended nominal projection (*xnP*) of unagreement languages that is overt in APCs (*nosotros los linguistas* 'we linguists') and covert in unagreement, cf. Fig. 1. Following Heim (2008:37), person features introduce a presupposition that a speech act participant is included in the denotation of their complement, cf. (2). According to this analysis, such an expression makes reference to only one set as in (3), i.e. there is no 'we' group distinct from the one referred to by the nominal.

- (2)  $[[ [+auth, +part] ]]^c = \lambda x_e: x \text{ includes } s_c.x$

- (3)  $[[ (2) ]]^c = [\lambda x_e: x \text{ includes } s_c.x]$  (the unique set *L* of linguists salient in *c*)

=The unique set *L* of linguists salient in *c* iff  $s_c \in S$ , undefined otherwise.

In contrast, Torrego (1996:114f.) claims that "the *los*-NP is interpreted as a subgroup of individuals included in the reference of the first person plural pronoun 'we' ... [The sentence in (1)] implies that at least one of the members of the first person plural pronoun 'we' is not a linguist". This characterisation implies the truth conditions in (4a) for (1). The present analysis, on the other hand, derives the truth conditions in (4b).

- (4)  $[[ (2) ]]^c = 1$  iff

a. the salient set of people *P* in *c* signed the salient letter in *c* and there is a salient set of linguists *L* in *c*, such that  $L \subset P$ , undefined if  $s_c \notin L$ . [Torrego 1996]

b. the salient set of linguists *L* in *c* signed the salient letter in *c*, undefined if  $s_c \notin L$ .  
[we X]

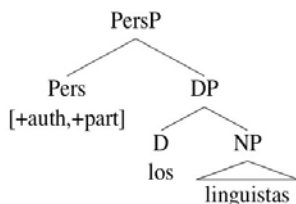
(4a) asserts that there are signatories that are no linguists ( $L \subset P$ ). This wrongly predicts that the assertion of the first clause in (5) should clash with the exhaustivity implied by the second clause, so (4a) looks too strong. According to the analysis in (4b), on the other hand, the subject *xnP* refers to only one set

(presupposed to include the speaker). This is compatible with exhaustive as well as non-exhaustive situations, which seems to be correct.

- (5) Firmamos los linguistas la carta, pero nadie más se interesó.  
 signed.1PL the linguists the letter but nobody more REFL interested.3SG  
 'We linguists signed the letter, but nobody else cared.'

This may have implications for the analysis of APCs in general in terms of either pronominal determiners (Postal 1969, Roehrs 2005) or as some form of apposition in favour of the former, which does not introduce the pronoun in its own DP. Furthermore, there are interactions of person and quantification that may be further explored under current assumptions.

Figure 1: The xNP in unagreement



## References

- Heim, Irene. 2008. "Features on Bound Pronouns". In *Phi Theory. Phi-Features across Modules and Interfaces*, edited by Daniel Harbour, David Adger & Susana Béjar, 35–56. Oxford, New York: Oxford University Press.
- Hurtado, Alfredo. 1985. "The unagreement hypothesis". In *Selected Papers from the Thirteenth Linguistic Symposium on Romance Languages*, edited by L. King & C. Maley, 187–211. Amsterdam: John Benjamins.
- Postal, Paul. 1969. "On So-called "Pronouns" in English". In *Modern Studies in English: Readings in Transformational Grammar*, edited by David A. Reibel & Sanford A. Schane, 201–226. Englewood Cliffs (New Jersey): Prentice Hall.
- Roehrs, Dorian. 2005. "Pronouns are determiners after all". In *The Function of Function Words And Functional Categories*, edited by Marcel den Dikken & Christina M. Tortora, 251–285. Amsterdam: John Benjamins.
- Torrego, Esther. 1996. "On Quantifier Float in Control Clauses". *Linguistic Inquiry* 27: 111–126.

## Anders Holmberg

Newcastle University/University of Cambridge, Great Britain  
anders.holmberg@newcastle.ac.uk

### The meaning of self-talk

Self-talk, that is talk addressed to yourself, audible or inaudible, is a linguistic practice engaged in by most but not all people. In self-talk either *I* or *you* can be used when referring to yourself. You can typically say either *What's wrong with me?* or *What's wrong with you?* addressing yourself, with no difference in meaning, although there is interpersonal variation regarding which pronoun is more common. The use of *you* is restricted, though, universally, in normal self-talk. For example, (1a,b) can be self-talk, *I* and *you* both referring to the self, but (2a,b) cannot be self-talk.

- (1) a. I'm so fed up with you.                      (2) a. You're so fed up with me.  
      b. I know you can do it!                      b. You know I can do it!

Why not? How can the pronouns *I* and *you* both refer to the self in (1a,b), but not in (2a,b)?

The purpose of the paper is to present a theory in which this constraint on the use of self-referring pronoun can be understood. It will be shown that the phenomenon does not fall under rules of person matching under pronominal binding or coreference (as in *The King will announce his/\*my decision later today*, said by the King; Ross 1970). It will be compared with different types of shifted or transposed reference (such as *If I were you, I'd cut my hair*), and will be shown to be entirely different from them. It will be argued that the difference between (1) and (2) is due to the fact that self-talk utterances perform a particular type of speech act, namely, expressions, rather than descriptions, of the self's emotions or opinions. They are not, and cannot be informative speech acts. The theory to be articulated has the following ingredients:

- Speaker and Addressee are grammatical categories, abstractly represented in the C-domain of the root clause: the neo-performative hypothesis (Sigurðsson (2004, Giorgi 2010).
- The pronoun *I* is necessarily bound by Speaker, and the pronoun *you* necessarily by Addressee. In other words, *I* and *you* are grammatically distinct persons.
- But the grammar doesn't care if the extension of Speaker/*I* and Addressee/*you* is the same person; this makes self-talk as in (1) possible (although interestingly some people are completely unfamiliar with this mode of language use).
- Only Speaker has access to the self's mind; Speaker is the linguistic representative of the self.

- Therefore only Speaker can express the self's state of mind in the form of a self-expressive speech act.
- Speaker cannot express Addressee's state of mind in a self-expressive speech act. What Speaker can do is describe Addressee's (or anybody's) state of mind. Therefore (2) can (only) be understood as a description of Addressee's emotion or attitude towards Speaker, a purely informative, as opposed to a self-expressive, speech act.
- But self-talk is not, and cannot be, informative. By definition, an utterance is informative when it adds propositional knowledge to the Common Ground (between two people) (Stalnaker 2002). But you cannot add propositional knowledge to the Common Ground in self-talk, because Speaker and Addressee are, in reality, the same person. Therefore (2), a description of Addressee's state of mind, cannot function as (normal) self-talk.

## Dorota Jaworska and Tomasz Pasterski

Adam Mickiewicz University in Poznań, Poznań, Poland  
dorotajw@wa.amu.edu.pl

### **“You won't get it unless you're bilingual, kid!”: On irony comprehension in Polish mono- and Polish-English bilingual children.**

Irony, the most complex type of nonliteral language, requires more processing than other figurative utterances (Leinonen and Ryder 2008). It could be the case that irony, involving the attribution of mental states, requires higher-order Theory of Mind skills (Curcó 2000). One way to verify this hypothesis is to test the comprehension of irony by children, whose brain structures critical for mentalising are not yet fully myelinated (Liddle and Nettle 2006), which creates an opportunity to see how the capacity for irony unfolds in time. Testing bilinguals, in turn, makes it possible to verify whether this capacity develops for each language separately or constitutes a more general cognitive ability, available regardless of the language spoken.

To check whether there would be a difference in the performance of mono- and bilingual children on an irony comprehension task, a set of forty scenarios was devised. In each scenario, one character always did something and the other commented on this activity. Half of the comments were ironic and the other half were literal; all were phrased so as to represent Searle's (1969) five major categories of speech acts. The stories were recorded and played to each child. There were 62 participants: 29 bilinguals and 29 monolinguals, belonging to two age groups – younger (age 7-9) and older (age 11-12). The participants' task was to listen to each scenario and to answer a set of simple questions probing context comprehension and the recognition of three major elements of irony comprehension: speaker belief

(Theory of Mind), intention, and attitude (Demorest et al. 1984; Creusere 1999; Pexman and Olineck 2002; Harris and Pexman 2003; Pexman et al. 2005; Glenwright and Pexman 2010; Pexman and Whalen 2010). Each child was tested individually, in several sessions whose duration depended on the subject's willingness to engage in the experimental task. To get the children's attention and help them focus, forty pictures illustrating the scenarios were prepared. Later, a control group of sixteen bilingual adults was tested using the same stimuli.

Initial analyses have demonstrated no difference in the performance of mono- and bilinguals from the younger group on the irony recognition task. Also, no difference has been found for the literal stimuli. In the older group, however, bilinguals did significantly better than monolinguals on the irony recognition task (60% and 33% correct responses respectively;  $p < 0,05$ ,  $F = 4,04$ ). These findings indicate that while younger monolinguals seem to be no less apt at comprehending irony than are their bilingual peers, it is possible that the bilingual advantage kicks in at a later stage of cognitive development. Further analyses are expected to show whether similar differences will be found in the ToM task. An interesting finding is beginning to emerge concerning participants' perception of speaker attitude: while monolinguals frequently gauge ironic utterances as negative and hurtful, bilinguals seem to be more inclined to judge them as jocular. One reason for this difference may be bilinguals' better developed metalinguistic skills (Goldin-Meadow and Galambos 1990), but their higher social status may also be an important factor (Pexman et al. 2000).

## References

- Creusere, Marlena. A. 1999. "Theories of adults' understanding and use of irony and sarcasm: Applications to and evidence from research with children." *Developmental Review* 19, 2: 213-262.
- Curcó, Carmen. 2000. "Irony: negation, echo and metarepresentation" In *Irony in Language and Thought*, edited by Raymond W. Gibbs and Herbert L. Colston, 260-293. New York: Lawrence Erlbaum Associates.
- Demorest, Amy, Christine Meyer, Erin Phelps, Howard Gardner and Ellen Winner. 1984. "Words speak louder than actions: Understanding deliberately false remarks." *Child Development* 55, 4: 1527-1534.
- Glenwright, Melanie and Penny M. Pexman. 2010. "Development of children's ability to distinguish sarcasm and verbal irony." *Journal of Child Language* 37, 02: 429-451.
- Goldin-Meadow, Susan and Sylvia Joseph Galambos. 1990. "The effects of learning two languages on levels of metalinguistic awareness." *Cognition* 34, 1: 1-56.
- Harris, Melanie and Penny M. Pexman. 2003. "Children's perceptions of the social functions of verbal irony." *Discourse Processes* 36, 3: 147-165.



- Leinonen, Eeva and Nuala Ryder. 2008. "Relevance Theory and communication disorders" In *The Handbook of Clinical Linguistics.*, edited by Martin J. Ball, Michael R. Perkins, Nicole Müller and Sarah Howard, 49–60. Malden: Blackwell Publishing.
- Liddle, Bethany and Daniel Nettle. 2006. "Higher-order theory of mind and social competence in school-age children." *Journal of Cultural and Evolutionary Psychology* 4, 3: 231–244.
- Pexman, Penny M., Todd R. Ferretti and Albert N. Katz. 2000. "Discourse factors that influence online reading of metaphor and irony." *Discourse Processes* 29, 3: 201–222.
- Pexman, Penny M., Melanie Glenwright, Andrea Krol and Tammy James. 2005. "An Acquired Taste: Children's Perceptions of Humor and Teasing in Verbal Irony." *Discourse Processes* 40, 3.
- Pexman, Penny M. and Kara M. Olineck. 2002. "Does Sarcasm Always Sting? Investigating the Impact of Ironic Insults and Ironic Compliments." *Discourse Processes* 33, 3: 199–217.
- Pexman, Penny M. and Juanita M. Whalen. 2010. "How do children respond to verbal irony in face-to-face communication? The development of mode adoption across middle childhood." *Discourse Processes* 47, 5: 363–387.

## Elżbieta Kaczmarska

University of Warsaw – Uniwersytet Warszawski, Poland  
 e.h.kaczmarska@uw.edu.pl

### **In Search of the Meaning of Verbs Expressing Mental States. Analysis of Czech Verbs and Their Polish Equivalents Based on Different Theories (Valency, Case Grammar, Pattern Grammar, Cognitive Linguistics)**

The analysis is focused on Czech polysemous verbs *mít rád*, *mrzet*, *toužit*, expressing mental states. The goal of the analysis is to test which theory can lead us to the closest equivalents of these verbs.

In 2013 a pilot research concerning the ambiguous Czech verb "*toužit*" was conducted (Kaczmarska & Rosen 2013). The study was supposed to reveal if valency can influence the choice of an equivalent in the Polish language. It was assumed that for some senses the equivalent can be established based on the convergence of the valence requirements. The hypothesis proved to be true. The valence influence was not however seen by all the senses of the verb. A more extensive research should be conducted to establish equivalents (or cluster of equivalents) for given units (Levin 1993; Lewandowska-Tomaszczyk 1984, 2013). We decided to take into consideration the case grammar (Fillmore 1968), pattern grammar (Francis & Hunston & Manning 1996; Hunston & Francis 2000) and cognitive linguistics (Langacker 1987, 1991, 2008; Taylor 2002; Mikołajczuk 1997, 1999) approaches to identify all the

meanings of the verbs and finally to find a proper equivalent for each sense of the units.

The analysis proper is preceded by automatic extraction (Och & Ney 2003) of pairs of equivalents from a parallel corpus InterCorp (Čermák & Rosen 2012, see <http://korpus.cz/intercorp>). These pairs constitute a kind of bilingual dictionary (Jirásek 2011). The analysis includes automatic excerption of chosen verbs (with aligned segments) from InterCorp. The segments are analysed manually. We check (in each segment) how the key verb was translated and what kinds of collocations and arguments it had. Subsequently we can start to operate with the tools specific for each linguistics approach (valency, case grammar, pattern grammar, cognitive linguistics).

The results of the quadruple analysis will let us establish the semantically and syntactically closest Polish equivalents of Czech verbs. The analyses will also show us the most effective theory or will reveal which of them we should combine to achieve successful results.

As an outcome of this research, an equivalent-searching algorithm will be prepared. The algorithm will be based on a syntactico-semantic analysis. We hope that the algorithm will be applied to the analysis of different verbs expressing mental states. The method is likely to become an important tool for lexicographers.

#### References:

- Čermák, F. & Rosen, A. (2012). The case of InterCorp, a multilingual parallel corpus. *International Journal of Corpus Linguistics*, 13(3):411–427
- Fillmore, Ch.J. (1968). The Case for Case. In Bach and Harms (Ed.): *Universals in Linguistic Theory*. New York: Holt, Rinehart, and Winston, 1-88.
- Francis, G. & Hunston, S. & Manning, E. (1996). *Collins COBUILD Grammar Patterns 1: Verbs*, HarperCollins. London.
- Hunston, S. & Francis, G. (2000). *Pattern Grammar: A corpus-driven approach to the lexical grammar of English*, John Benjamins.
- Jirásek, K. (2011). Využití paralelního korpusu InterCorp k získávání ekvivalentů pro chorvatsko-český slovník. *Korpusová lingvistika Praha 2011: 1 – InterCorp*. Ed. F. Čermák, Praha. 45-55.
- Kaczmarek, E. & Rosen, A. (2013). „Między znaczeniem leksykalnym a walencją – próba opracowania metody ekstrakcji ekwiwalentów na podstawie korpusu równoległego”. *Studia z Filologii Polskiej i Słowiańskiej*, 48: 103–121. Warszawa.
- Langacker, R. (1987). *Foundations of Cognitive Grammar*, vol. 1, *Theoretical Prerequisites*. Stanford: Stanford University Press.
- Langacker, R. (1991). *Foundations of Cognitive Grammar*, vol. 2, *Descriptive Application*. Stanford: Stanford University Press.

- Langacker, R. (2008). *Cognitive Grammar: A Basic Introduction*. New York: Oxford University Press.
- Levin, B. (1993). *English Verb Classes and Alternations: A Preliminary Investigation*. University of Chicago Press, Chicago.
- Lewandowska-Tomaszczyk, B. (1984). *Conceptual Analysis, Linguistic Meaning, and Verbal Interaction*. Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- Lewandowska-Tomaszczyk, B. (2013). *Komunikacja i konstruowanie znaczeń w przekładzie*. not published conference lecture, Konin 13-14.11.2013.
- Mikołajczuk, A. (1999). *Gniew we współczesnym języku polskim. Analiza semantyczna*, Warszawa.
- Mikołajczuk, A. (1997). *Pole semantyczne 'gniewu' w polszczyźnie (Analiza leksemów: gniew, oburzenie, złość, irytacja)*. Semantyczna struktura słownictwa i wypowiedzi. Eds. R. Grzegorzczakowa & Z. Zaron. Warszawa.
- Och, F. & Ney, H. (2003). *A Systematic Comparison of Various Statistical Alignment Models*. *Computational Linguistics*, 29(1):19-51
- [www.korpus.cz/intercorp](http://www.korpus.cz/intercorp)

## **Ditte Kimps, Kristin Davidse and Bert Cornillie**

KU Leuven (University of Leuven), Belgium

Ditte.kimps@arts.kuleuven.be; Kristin.Davidse@arts.kuleuven.be;

Bert.Cornillie@arts.kuleuven.be

### **A usage-based analysis of the modal and discourse marker uses of English tag questions**

We assume with McGregor (1995, 1997) that English tag questions (TQs) serve two broad interpersonal functions: they express speech functions such as questions (example 1) question-statement blends (2), statements (3) and commands (4-5) and they convey speaker attitude. It is for the attitudinal layer that we will develop a systematic typology in this paper, based on a qualitative and quantitative analysis of the intonationally transcribed TQs in the London-Lund Corpus (LLC) and the Corpus of London Teenage Language (COLT).

In the literature epistemic modal meanings have been correlated with prosody: a rise on the tag conveys that the speaker is uncertain about the truth of the proposition, and a fall that the speaker is certain. Whilst our study of prosodically annotated data confirms these as general tendencies, there are exceptions, e.g. TQs in which the speaker lacks information but which have a falling tone despite the speaker's uncertainty as in (1).

(1) he l\ooked at it# he looked at it h\as he# (COLT)

We will, therefore, start from the concepts of the primary knower, who has the information, and the secondary knower, who seeks the information (Heritage 2012), to define the *epistemic* modal values that can be expressed. Secondary knowers are typically uncertain about the truth of the *proposition* (1), but primary knowers can manifest different degrees of certainty, varying from less certain (2) to quite certain (3).

- (2) A: \*((^think we)) paid !sixty\*-odd p\ounds# ^d\idn`t we# for the ^l\ast 'lot#  
 B: ^sixty-n\ine \_pounds# +^for+ (LLC)
- (3) they \like that# and# she's really c\ocky# \isn't she# and she won't take any sh\it from anyone# (COLT)

TQs can also be *deontic* constructions, in which speakers express *directive* attitudes towards the *acts* described in the anchor (Davies 2006), e.g. (4-5).

- (4) and ^then phone Br\ian w\ill you# (COLT)
- (5) well ^let's think about the pr\esent shall we# (LLC)

We hypothesize that both modal types manifest the opposition between subjective (speaker commitment), e.g. (2,4), and intersubjective (pretence of speaker/hearer consensus), e.g. (3,5), in their own ways, which we will develop in our typology.

Finally, a sizeable portion of English TQs function as *discourse markers*, rather than as modal markers, conveying interactional and discursive meanings such as the countering of expectations (6), hedging (7) and emphasising (8) (cf. Algeo's 1990 punctuational).

- (6) A: I didn't walk off[sic] with Fel\icity# I walked off with S\ookey#  
 B: well Sookey can still come r\ound# c\an't she#. (COLT)
- (7) you heard about that Lord of the Fl\ies# it's like this kind of, it's a group of b\oys# \isn't it# English b\oys# who get (COLT)
- (8) ^course an!\other 'factor in ((disagr\reement# ^\isn't it#)) is the ^fact that a :th\ird# of the ^wh\ole {of the de^p\artment#}# disap^pear in (([dh@mi])) the belg\inning of M\ay# (LLC)

## References

- Algeo, John. 1990. "It's a Myth, innit? Politeness and the English Tag Questions." In *The State of the Language*, edited by Christopher Ricks and Leonard Michaels, 443-450. Berkeley: University of California press Berkeley.
- Davies, Eirian. 2006. "Speaking, Telling and Assertion: Interrogatives and Mood in English." *Functions of Language* 13: 151-196.
- Heritage, John. 2012. "The Epistemic Engine. Sequence Organization and Territories of Knowledge." *Research of Language and Social Interaction* 45: 30-52.
- McGregor, William. 1995. "The English 'Tag Question': a New Analysis, is(n't) it?" In *On Subject and Theme. A Discourse Functional Perspective*, edited by Ruqaiya Hasan and Peter Fries, 91-121. Amsterdam: Benjamins.
- McGregor, William. 1997. *Semiotic Grammar*. Oxford: Clarendon.

## Paul Kiparsky

Stanford University, Palo Alto, CA, USA  
kiparsky@stanford.edu.

### The two plurals: A case for allosemy

A morphosyntactic category may have distinct meanings in complementary distribution or free variation. E.g. the perfect is a unified morphosyntactic category, but it has distinct meanings (resultative, recent past, universal, existential) that correspond to alternative mappings of event structure to the perfect's abstractly specified temporal parameters. Such ALLOSEMY is one of several formal analogies between morphosemantics and phonology (Kiparsky 2013, Myler 2013). Here I argue that regular and associative plurals (and duals) are allosemes.

Regular plurals apply to predicates – morphosyntactically to Ns – and yield a set of plural entities with two or more atomic parts (three if there is a dual), each one of which satisfies the predicate; they can be part of definite or indefinite DPs. Associative plurals apply to a DP denoting an individual to yield the individual that consists of the original individual and the individuals related to it by some contextually salient relation; they are always definite.

(1) a. Associative plural:

$\lambda x.x + z$ , for some  $z \neq x$  and contextually salient R such that  $R(x,z)$

b. Regular plural:

$\lambda P \lambda x [|\text{atomic-parts}(x)| > 1 \wedge \forall z [z \in \text{atomic-parts}(x) \rightarrow P(z)]]$ ,

where 'atomic-parts' is a function that maps an individual into the set of its atomic parts.

The two types of plural might seem morphologically and syntactically distinct.

(1) They have different kinds of morphological hosts: pronouns can only get associative plurals ('we' isn't 'I'+ 'I'+ 'I'), and associative plurals are restricted to a top segment of the "animacy" (individuation) scale (Corbett 2000). (2) Only associative plurals can stack, e.g. Japanese Taroo-tati-tati 'Taroo and his associates and their associates' (Ueda & Haraguchi 2008). (3) Associative plurals can only come outside regular plurals: *gakusei-tati-tati* 'the students (Pl.) and their associates (Assoc.Pl.)', not 'the sets of the student's associates'. (4) Associative plurals can be morphologically distinct from regular plurals, e.g. Hungarian *János-ék* 'János and associates' *János-ok* 'the Jánoses' = 'people called János'. (5) Only associative plurals allow INCLUSORY (sylleptic) constructions, which specify the other individuals in the group by means of appositions, non-canonical uses of comitatives, asyndetic conjunction, agreement, or compounding (Palancar 2012).

(2) Me välte-ttiin sun kanssa tois-i-a-mme.

We avoided you-SG.GEN with other-PL-PART-1PL. [FINNISH]

'1/we and you avoided each other' (or: 'We avoided each other [when we were] with you')

However, on the assumption that individual-denoting expressions (such as proper names) are DPs (Longobardi 1994, Matushansky 2006), the associative and regular plural meanings are in COMPLEMENTARY DISTRIBUTION. The two meanings — a set of plural entities and a plural individual — are systematically related to their respective distribution. This makes it possible to treat them as alloemes of a single plural category, allowing their shared properties to be captured in a uniform way. These shared properties include the following:

(1) Associative and regular plurals trigger identical number agreement. (2) Cross-linguistically, they tend to be morphologically marked in the same way (Daniel & Moravcsik, WALS). (3) Associative and regular plurals allow collective and distributive interpretations, as seen in (2).

#### References:

- CORBETT, GREVILLE G. 2000. *Number*. Cambridge University Press.
- KIPARSKY, PAUL. 2013. On the Interaction and Interpretation of Nominal Features. *Workshop on Semantic Variation*, Chicago, Oct. 25, 2013.
- MATUSHANSKY, ORA. 2006. Head Movement in Linguistic Theory. LI 37: 69-109.
- MYLER, NEIL. 2013. *Building and interpreting HAVE sentences in (mostly) English Ling-Lunch*, MIT May 9, 2013.
- PALANCAR, ENRIQUE. 2012. A typology of split conjunction. *Linguistic Typology* 16: 265-320.
- UEDA, Y. AND T. HARAGUCHI. 2008. Plurality in Japanese and Chinese. *Nanzan Linguistics* 3: 229-242.

## Alenka Kocbek

Faculty of Education, University of Primorska, Slovenia  
alenka.kocbek@pef.upr.si

## Translating Non-Literary Texts as Culturemes

The paper proposes a model for translating non-literary texts designed as a sequence of stages each addressing one specific aspect of a text while considering the prospective function (*skopos*) of the target text. It suggests viewing texts as *culturemes*, i.e. as patterns of culturally conditioned behaviour according to Oksaar (1988). By observing all text dimensions the salient features which reflect established

cultural practices, i.e. *memes* according to Chesterman (1997), are identified and the *memetic structure* of the text (Kocbek, 2012) is defined. Having defined the intended function of the target text (TT) and the type of translation best fulfilling it, the source text (ST) and parallel target culture texts are first analysed to determine the areas of culture affecting a given text-type and shaping its extra-linguistic dimension, such as e.g. religion, the social, political, legal order, relevant disciplines, etc. In the next stage the linguistic levels of the text are studied: its macro-structure (the customary contents and consequently extent of the text in a particular culture) and micro-structure (i.e. the lexical, syntactic, pragmatic and stylistic level). The *memetic* structures of the ST and the TT are then compared and their universal *memes* and their divergences mapped. Finally, in the TT *memes* of both the source and the target culture(s) are combined, i.e. ST *memes* are preserved, mutated, eliminated and/or substituted by target culture *memes* in line with the *skopos*. Hence, the translation procedure yields a TT which is more often than not a cultural hybrid with *memes* of both the source and the target culture(s) co-existing on its various levels.

### References

- Chesterman, Andrew. 1997. *Memes of Translation*. Amsterdam/Philadelphia: John Benjamins.
- Kocbek, Alenka. 2012. "Memes and Culturemes as Tools in Translating Contracts." In *Translationswissenschaft: Alte und neue Arten der Translation in Theorie und Praxis. Translations Studies: Old and new Types of Translation in Theory and Practice*, edited by Lew Zybatow, Alena Petrova and Michael Ustaszewski, 79-84. Frankfurt am Main: Peter Lang Verlag.
- Nord, Christiane. 1997. *Translating as a Purposeful Activity: Functionalist Approaches Explained*. Manchester: St. Jerome.
- Oksaar, Els. 1988. *Kulturremtheorie: Ein Beitrag zur Sprachverwendungsforschung*. Göttingen: Vandenhoeck u. Ruprecht. Hamburg: Joachim Jungius Gesellschaft der Wissenschaften.

**Marie Kopřivová, Hana Goláňová, Petra Klimešová,**

**Zuzana Komrsková, David Lukeš**

Institute of the Czech National Corpus, Faculty of Arts, Charles University

{marie.koprivova,hana.golanova,...}@ff.cuni.cz

## **Multi-tier transcription of informal spoken Czech: the ORTOFON corpus approach**

The spoken corpus ORTOFON is currently in the stage of data collection and annotation and will feature two main tiers of transcription: the ort layer (which is more or less orthographical) and the fon layer (which contains a simplified phonetic transcript). The recordings are of the same nature as those in the ORAL series corpora (Kopřivová & Waclawičová 2006; Waclawičová, Křen & Válková 2009): they target prototypical spoken language as instantiated in informal conversations among people who know each other and are situated in their usual environment (at home with their family, among friends, in a restaurant etc.). Our recording associate usually takes part in the dialogue and performs his/her usual role in the group of speakers.

Like previous spoken corpora, ORTOFON will be balanced with respect to several sociolinguistic categories of the included speakers: gender, age, education and dialect region of childhood residence. It will thus allow for interesting comparisons with older dialect recordings (Balhar et al. 2011) which are currently being made into a corpus (called DIALEKT), one of whose layers of transcription will be compatible with the ORTOFON ort layer. Recordings are being collected from all over the Czech Republic, with great emphasis on quality, which is necessary because of the phonetic transcription stage. Apart from face-to-face interactions, telephone or VoIP conversations are also allowed for inclusion.

By offering a detailed multi-tier transcript (including orthographic, phonetic and meta-linguistic layers), we aim to capture interactions in a complex way in the context of a given communication situation. The ort layer is optimized for allowing a reasonably quick first transcription of the sound recording. Being based on orthography, it is mostly intuitive for our non-linguist collaborators and easily searchable. At the same time, it already encodes several phenomena typical of spoken language, e.g. [v]-prothesis, Common Czech endings and dialectal features. The carefully negotiated trade-off between standard spelling and variation makes it possible to track these features' areal distribution in a fairly straightforward way. More pronunciation details are available via the linked fon layer, which is an innovation compared to the ORAL series. It does not aim to capture all phonetic



variation (e.g. vowel quality changes are mostly limited to reduction), but still offers rudimentary pointers to a variety of connected speech processes (Farnecani & Recasens 2010, 322): assimilation of voicing, place or manner of articulation; stress group boundaries; epentheses and elisions etc. Comparison with the ort layer reveals deletions in common words and filler expressions.

Examples will illustrate the specificities of our transcription guidelines, which are currently mostly stable, though still a work in progress in some respects, based on feedback and practical experience. Changes from previous versions will be highlighted as they often offer an interesting perspective on annotation choices.

### References

- Balhar, Jan et al. 2011. *Český jazykový atlas – Dodatky*. Prague: Academia.
- Čmejrková, Světlá, and Jana Hoffmannová (eds). 2011. *Mluvená čeština: hledání funkčního rozpětí*. Prague: Academia.
- Ehlich, Konrad, and Jochen Rehbein. 1976. "Halbinterpretative Arbeitstranskriptionen (HIAT)." *Linguistische Berichte* 45: 21–41.
- Farnecani, Edda, and Daniel Recasens. 2010. "Coarticulation and Connected Speech Processes." In *The Handbook of Phonetic Sciences*, edited by William J. Hardcastle, John Laver & Fiona E. Gibbon, 316–352. Chichester, U.K.: Wiley-Blackwell.
- Hála, Bohuslav. 1967. *Výslovnost spisovné češtiny I*. Prague: Academia.
- Kaderka, Petr, and Zdeňka Svobodová. 2006. "Jak přepisovat audiovizuální záznam rozhovoru? Manuál pro přepisovatele televizních diskusních pořadů." *Jazykovědné aktuality* 43 (3–4): 18–51.
- Kopřivová, Marie, and Martina Waclawičová. 2006. "Representativeness of Spoken Corpora on the Example of the New Spoken Corpora of the Czech Language." In *Труды международной конференции "Корпусная лингвистика – 2006"*, 174–181. Санкт-Петербург: Издательство СПбГУ.
- Krčmová, Marie. 2010. *Úvod do fonetiky a fonologie pro bohemisty*. Ostrava: Filozofická fakulta OU.
- Palková, Zdena. 1994. *Fonetika a fonologie češtiny*. Prague: Karolinum.
- Požizka, Petr. 2009. *Transkripce a sběr dat v korpusech mluvené češtiny*. (Unpublished doctoral dissertation). Filozofická fakulta Univerzity Palackého, Olomouc.
- Waclawičová, Martina, Michal Křen, and Lucie Válková. 2009. "Balanced Corpus of Informal Spoken Czech: Compilation, Design and Findings." In *Proceedings of the 10th Annual Conference of the International Speech Communication Association INTERSPEECH 2009*, 1819–1822. Brighton: Curran Associates, Inc.
- Zeman, Jiří. 2008. *Základy české ortoepie*. Hradec Králové: Gaudeamus.

Ivona Kučerová

McMaster University, Hamilton, Canada

kucerov@mcmaster.ca

## Gender-number interactions in defective $\phi$ -feature chains

We argue, based on data from Standard Italian, that  $\phi$ -features within DP are always introduced by D and appear on lower functional heads only via feature inheritance (Richards 2007, Chomsky 2008), with their value being assigned either by an assignment function introduced by D (a  $\phi$ -feature bundle corresponding to a situational pronoun of Percus 2000), or being encoded in the lexical entry of a nominal root (cf. Kramer 2009), with feature matching being distinct from feature valuation. Crucially, we argue that only properly individuating D introduces a complete set of gender (GEN) and number (NUM) features, thus providing a novel formalization of the prevalent dependency between GEN and NUM. That is, we argue that there is no GEN and NUM dependency as such. Instead, the GEN assignment is dependent on the divisional function (Borer 2005). The empirical evidence comes from the observation that Ds referring to non-atomic entities give rise to defective GEN and NUM chains in a way parallel to defective T in the CP domain.

Theoretical consequences: (i) No principal distinction between interpretable and uninterpretable features as they may be part of the same Agree chain. (ii) If a feature is semantically interpreted, it is always via an assignment function independent of syntax proper. (iii) Only a subset of nouns is based on category neutral roots; nouns with valued features on the root cannot be category neutral.

**The puzzle:** In Italian, the word final vowel (-o, -a, -e; class marker) cannot be associated with GEN as the same vowel appears on grammatically M and F nouns (Harris 1991), (1). Interestingly, in so called mating nouns (Harris 1991), the ending depends on natural gender: the -o form  $\rightarrow$  a male or an underspecified individual, the -a form  $\rightarrow$  a female, (2). The pattern raises the question of the relationship between grammatical and natural GEN, and between the class marker and GEN.

**The proposal:** We argue that (i) GEN and class marker are structurally distinct, and (ii) GEN may be lexically specified or it gets introduced in syntax. Crucially, nouns with a fixed ending come from the lexicon with their idiosyncratic class marker. Consequently, they are not category neutral (cf. Marantz 2007) but form a n structure. In contrast, mating nouns are formed by category neutral roots. As for GEN, nominal roots may or may not be specified for GEN, while category neutral roots are never specified for GEN. The proposed structures, (3), correctly predict that only nouns based on category neutral roots (mating nouns) have

corresponding verbs derived from the same root, (4). Furthermore, we argue that GEN is introduced by D and it's only inherited by n which gets valued from D or from the root. The  $\phi$ -complete set is inherited only if D is referential and individuating (Borer 2005): if D refers to non-atomic entities (irrespective of whether they can be counted), the  $\phi$ -feature chain is defected, giving rise to irregular GEN/NUM interactions:

(i) Relational nouns, (5), are in SG always M, however, their PL is either F or M depending on their semantic interpretation: if they denote relations (body parts, relations to a space etc.) instead of atomic entities, (Sternfeld 1998, Beck & Sauerland 2000), their PL is F. However, if they denote plurality of atomic non-relational entities, they acquire regular M gender. I.e., the Agree chain is successfully established via divisional function and is independent of number/ $\pm$ counter as such.

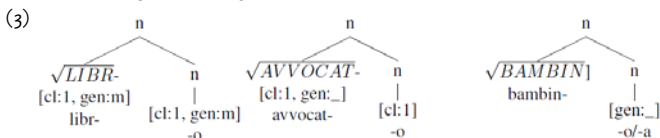
(ii) Attributive nouns (*la vittima* 'the victim', *la persona* 'the person' etc.) are invariably F irrespective of natural gender. We argue, however, that since they do not denote a referential individual, their D features are defective. Thus, they trigger agreement only if there is no referential D in the structure. Evidence comes from appositives: if there is no competing referential D, T probes the defective D (F). However, if there is a referential D (*Gennaro Chierchia*) T agrees with it (M).

(iii) Mass nouns and nominalized infinitives in Italo-Romance and Ibero-Romance dialects systematically trigger special agreement, a hallmark of defective  $\phi$ -feature interaction.

- (1) Word-final vowel does not determine gender (-o nouns):
- a. M: *il libro* 'the book'
  - b. F: *la mano* 'the hand'
  - c. M or F depending on the natural gender of the referent: *l'avvocato* 'the lawyer'

(2) In mating nouns, the ending depends on the natural gender:

- (i) *il bambino*: 'the baby boy', 'the baby'
  - (ii) *la bambina*, 'the baby girl'
- (i) *il ragazzo*: 'the kid', 'the boy'
  - (ii) *la ragazza*, 'the girl'



Corresponding morphological mapping rules:

- a. [cl:1, gen: $\alpha$ ]  $\leftrightarrow$  -o
  - b. [gen:m]  $\leftrightarrow$  -o
  - c. [gen:f]  $\leftrightarrow$  -a
- (4) a. *il servo, la serva* 'the servant'  $\leftrightarrow$  *servire* 'to serve'  
 b. *la sposa* 'the bride', *lo sposo* 'the groom'  $\leftrightarrow$  *sposare* 'to marry'

- (5) Relational nouns:
- a. *braccio* ‘arm’, *labbro* ‘lip/edge’, *muro* ‘wall’ → M.SG
  - b. relations : *le braccia* ‘arms’, *le labbra* ‘lips’, *le mura* ‘walls of a city/fort’ → F.PL
  - c. plurality of atomic non-relational entities: *il bracci* ‘arms of a cross’, *il labbri* ‘edges’, *il muri* ‘walls of a room/house’ → M.PL
- (6)
- a. La persona bella e molto ingegnosa.  
the.F person.F beautiful.F is very clever.F  
‘The beautiful person is very clever.’
  - b. La persona bella, Gennaro Chierchia, e molto ingegnoso.  
the.F person.F beautiful.F Gennaro Chierchia is very clever.M  
‘The beautiful person, Gennaro Chierchia, is very clever.’

## Nikolaos Lavidas

Aristotle University of Thessaloniki  
nlavidas@enl.auth.gr

### V1 and VSO in the Greek Septuagint: Contact Effects of Translation and Their Role in Language Change

This study examines word order in the Greek Septuagint, the literal Greek translation of the Hebrew Bible, and proposes that: (a) Word order is affected by contact effects of translation. (b) However, the borrowing of word order characteristics does not lead to “new” (or loss of) word orders (on bilingualism in Greek Koine and the status of the Greek Septuagint, see Janse 2002, among others). In this way, the Greek Septuagint data support Heine’s (2008) analysis that language contact may induce speakers to prefer the options available in both languages in contact but does not lead to change in word order.

In Biblical Hebrew, the prevalent word order is verb initial. Furthermore, Biblical Hebrew shows left-conjunct agreement: in VS orders, the verb agrees with the left conjunct, whereas in SV orders, it agrees with the conjoined subject (Doron 2000). The Greek Septuagint demonstrates left-conjunct agreement in most of the cases in which Biblical Hebrew follows this pattern (ex. 1a-b).

- (1) a. *wat-tašar*                      *d’bo:ra*                      *u:-ba:ra:q*    *ben*                      *ʔ<sup>a</sup>bi:no:š’am*  
and-sang.3SG                      Deborah                      and-Barak    son                      Abinoam
- b. *kai*                      *ēisen*                      *debbōra*    *kai*                      *baràk*,                      *huiòs*                      *abineèm*  
and                      sang.3SG                      Deborah                      and                      Barak                      son.nom                      Abinoam
- ‘And Deborah and Barak, the son of Abinoam, sang (this song).’ (Judges 5:1)

Greek shows stability regarding postverbal subjects that are allowed in all stages of its history. We will argue that, in contrast to Biblical Hebrew, VSO in both early Greek (see ex. 2, where the second position particle [*dē*] is evidence of the movement of V to C in Classical Greek) and later Greek may be the output of two derivations: (a) V in T and S and O in domainV, or (b) V in C, S in domainT, and O in domainV (see Roussou & Tsimpli 2006 for Modern Greek).

- (2) *ékhei dē ho móskhos hoûtos ho âpis kaleómenos*  
 has.3SG PTC the.NOM calf.NOM this.NOM the.NOM Apis.NOM called.NOM  
*sēméia toiáde*  
 marks.ACC the-following.ACC  
 ‘This calf, which is called Apis, has the following marks.’ (Hdt. 3.28.3)

Word order frequency in the Greek Septuagint is affected by the Biblical Hebrew model, mainly with respect to the presence of VSO orders: 57.2% in the Greek Septuagint (based on data from Rife 1933) vs. 5% in Classical Greek (based on data from Fraser 2002) or 12.5% in Medieval Greek (Digenes Akrites, 11th-12th c.). VSO (and SVO) appear in neutral clauses in the Greek Septuagint, where no constituent is topic or focus material. On the other hand, the results of our study indicate that some of the most common characteristics of Biblical Hebrew do not appear in the Greek Septuagint: For instance, (a) in Biblical Hebrew but not in the Greek Septuagint, a pronominal direct object always follows the verb; (b) in Biblical Hebrew but not in the Greek Septuagint, a demonstrative pronoun always follows its noun (Rife 1933).

## References

- Doron, Edit. 2000. “VSO and Left-Conjunct Agreement: Biblical Hebrew vs. Modern Hebrew.” In *The Syntax of Verb-Initial Languages*, edited by Andrew Carnie and Eithne Guilfoyle, 75–95. Oxford: Oxford University Press.
- Fraser, Bruce. 2002. “Word Order in Greek Stichic Verse: Subject, Verb, and Object.” *Glotta* 78: 51–101.
- Heine, Bernd. 2008. “Contact-induced Word Order Change without Word Order Change.” In *Language Contact and Contact Languages*, edited by Peter Siemund and Noemi Kintana, 33–60. Amsterdam: John Benjamins.
- Janse, Mark. 2002. “Aspects of Bilingualism in the History of the Greek Language.” In *Bilingualism in Ancient Society: Language Contact and the Written Word*, edited by James Noel Adams, Mark Janse and Simon Swain, 332–90. Oxford: Oxford University Press.
- Rife, J. Merle. 1933. “The Mechanics of Translation Greek.” *Journal of Biblical Literature* 52: 244–52.
- Roussou, Anna and Ianthi Maria Tsimpli. 2006. “On Greek VSO again!” *Journal of Linguistics* 42: 317–54.

## Eva Lehečková and Martina Vokáčová

Charles University in Prague, Faculty of Arts, Czech Republic  
eva.leheckova@ff.cuni.cz; martinavokacova@email.cz

### Two aspects of metonymy alternations of Czech verbs

The paper surveys argument alternations of Czech verbs of the type *naložit seno na vůz / vůz senem* (to load the hay onto the truck | the truck with the hay). These structures have long gained a lot of attention among linguists, carrying various labels such as locative alternations, verb alternations, spray/load alternation, object diathesis, lexical-semantic conversion or metonymical object changes (cf. Daneš et al. 1987, Levin 1993, Iwata 2005, Kettnerová 2012, Sweep 2012, among many others). The existing research has focused on two key aspects of these constructions: (i) which structure is more prototypical (with respect to various factors), and (ii) which formal and/or semantic features determine the usage of each construction.

Following Sweep (2012), we adopt the metonymy approach to the phenomenon which considers alternations to mirror metonymical changes, allowed by the combination of the verb meaning and the contiguity relation between its both arguments, cf. (1) non-metonymy alternative *vymáčkat šťávu z citronu* 'to squeeze out juice from a lemon', (2) metonymy alternative *vymáčkat citron* 'to squeeze out a lemon', (3) incorporated alternative *vymáčkat citronovou šťávu* 'to squeeze out lemon juice'.

On the basis of a previous corpus case study (Vokáčová 2014), we develop the points (i) and (ii) mentioned above. More particularly, we survey two hypotheses:

(I) the non-metonymy alternative (1) is more prototypical, because its both arguments are significantly more often overt and obligatory whereas the metonymical object in (2) induces often a complete gestalt and is not followed by the second argument which thus turns to be optional on most occurrences; the incorporated alternative (3) is constructed as excluding any second argument completely.

(II) the distribution of metonymy and non-metonymy alternatives is sensitive to number and the type of reference of the direct object; the non-metonymy variant is not so sensitive to number, but it tends to denote an individual rather than generic reference and it is usually specific whereas the metonymy object tends to be singular with often non-specific individual or generic interpretation.

Both these aspects concern the cognitive representation of metonymy alternations, therefore the two hypotheses are tested in a self-paced reading task experiment which proved as a reliable method for examining metonymy in the past

(see Zarcone – Pado, 2011). The stimuli comprise sentences exposed word-by-word to 25 subjects while reaction times are measured for significant effects. The stimuli are controlled for aspectual values of the verbs which may influence the interpretation of arguments encoded as direct objects (cf. Filip 1999, among others).

### References

- Bresnan, J., A. Cueni, T. Nikitina and H. Baayen. 2007. "Predicting the dative alternation." In *Cognitive Foundations of Interpretation*, edited by G. Boume, I. Krämer and J. Zwarts, 69–94. Amsterdam: Royal Netherlands Academy of Science.
- Daneš, F., Z. Hlavsa and M. GREPL. 1987. *Mluvnicka čeština 3*. Praha: Academia.
- Filip, H. 1999. *Aspect, Eventuality Types and Nominal Reference*. New York/London: Garland Publishing.
- Iwata, S. 2005. "The role of verb meaning in locative alternations." In *Grammatical Constructions: Back to the roots*, edited by M. Fried and H. C. Boas, 101–118. Amsterdam – Philadelphia: John Benjamins Publishing Company.
- Kettnerová, V. 2012. *Lexikálně-sémantické konverze ve valenčním slovníku*. Unpublished PhD Dissertation. Praha: MFF UK.
- Levin, B. 1993. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago – London: University of Chicago Press.
- Sweep, J. 2012. *Metonymical Object Changes. A corpus-oriented study on Dutch and German*. Utrecht: LOT.
- Vokáčová, Martina. 2014. *Ditranzitivní konstrukce v současné češtině*. Unpublished bachelor thesis. Praha: FF UK.
- Zarcone, A. and S. Padó. 2011. "Generalized Event Knowledge in Logical Metonymy Resolution." In *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*, edited by L. Carlson, C. Hölscher and T. Shipley, 944–949. Austin, TX: Cognitive Science Society.

## Lo Chin-cheng

National Cheng Kung University, Taiwan  
bluesmithlo@gmail.com

### The Utterance-final Glottalization in Taiwanese Mandarin: Interaction between Tone and Intonation

The purpose of this study is to investigate the utterance-final glottalization in the Mandarin Chinese spoken in Taiwan. Glottalization is characterized by longer or/and irregular glottal pulses (e.g., Pierrehumbert & Talkin, 1992; Dilley *et al.*, 1996) and often occurs in plosives, word-initial vowels, and utterance or phrase finals (Kohler, 1996). The occurrence of glottalized voice has been attributed to various factors, including speaking style (Pierrehumbert, 2000), speakers' preference (Slifka, 2000),

gender (Hanson, 1997; Hanson & Chuang, 1999), and lowering of Fo (Ding *et. al.*, 2006). Since the four lexical tones of Mandarin Chinese reflect four Fo contours (tone 1: high level 55, tone 2: high rising 35, tone 3: dip-rise 214, tone 4: high falling 51), the interaction of these tones with gender and intonation is worthy of exploration. Moreover, the possible influence of different vowels on the occurrence of glottalization is also of interest because it has been reported that low vowels have lower Fo (House & Fairbanks, 1953; Perterson & Barney, 1952).

A total of 192 disyllabic words or phrases were selected (three words ending in each of the 4 tones from the 16 rimes:  $3 \times 4 \times 16 = 192$ ) and put in the final positions of a declarative sentence: *Wo hui shuo \_\_\_\_*. 'I can say \_\_\_\_.' and a interrogative sentence: *Ni hui shuo \_\_\_\_?* 'You can say \_\_\_\_?', so a list of 384 sentences were compiled. Thirty speakers (15 males and 15 females, age: 30-50, all bilinguals of Mandarin and Southern Min) of Taiwanese Mandarin were recruited to read the list loud and steady at a normal speed, which was recorded by Sony ICD-SX1000 PCM recorder and later examined by *Praat*. The results show that (a) both gender and rimes have *no* significant influence on the occurrence of glottalization, (b) while tone 1 and tone 2 are generally not glottalized, tone 3 and tone 4 tend to be glottalized utterance-finally in declaratives, but not in interrogatives, (c) the glottalization of tone 3 happens in the middle of the syllable while that of tone 4 happens at the end, which is consistent with Ding *et. al.* (2006), and (d) contrary to the previous claim that speakers may have individual preference for glottalization patterns, our speakers showed identical tendency: no glottalization in interrogatives and glottalization in tone 3 and tone 4 in declaratives. Furthermore, non-final (i.e., penultimate) tone 3 and tone 4 are found (not expected) to act differently in terms of glottalization: tone 3 is generally glottalized whereas tone 4 is not. Therefore, the following conclusions can be drawn. First, the falling intonation of declarative sentences (lower Fo) does increase the rate of glottalization in the final position. Second, it seems the digit "1" in Chinese tonal transcription represents a pitch low enough for glottalization to occur (as in the case of tone 3 in declaratives), so non-final tone 4 may as well be transcribed as 53 and final tone 4 as 51.

## References

- Dilley, L., Shattuck-Hufnagel, S., & Ostendorf, M. (1996). Glottalization of word-initial vowels as a function of prosodic structure. *Journal of Phonetics* 24, 423-444.
- Ding, H., Jokisch, O., & Hoffmann, R. (2006). The effect of glottalization on voice preference. Retrieved from <http://www.isca-speech.org/archive>.
- Hanson, H. M. (1997). Glottal characteristics of female speakers: Acoustic correlates. *Journal of the Acoustical Society of America* 101, 466-481.



- Hanson, H. M., & Chuang, E. S. (1999). Glottal characteristics of male speakers: Acoustic correlates and comparison with female data. *Journal of the Acoustical Society of America* 106, 1064-1077.
- House, A. S., & Fairbanks, G. (1953). The influence of consonant environment upon the secondary acoustical characteristics of vowels. *Journal of the Acoustical Society of America* 25, 105-103.
- Kohler, K. J. (1996). Glottalizations across languages. *Sound pattern in spontaneous speech*. AIPUK 30, 159-193.
- Peterson, G. E., & Barney, H. L. (1952). Control methods used in the study of vowels. *Journal of the Acoustical Society of America* 25, 175-184.
- Pierrehumbert, J. (2000). #, +, and ?. In *7th meeting on Laboratory Phonology*. Nijmegen. June, 2000.
- Pierrehumbert, J., & Talkin, D. (1992). Lenition of /h/ and glottal stop. In G. Docherty and D. R. Ladd (Eds.), *Papers in laboratory phonology II: Segment, gesture, prosody* (pp.90-117). Cambridge: Cambridge University Press.
- Slifka, J. (2000). *Respiratory constraints on speech production at prosodic boundaries*. Ph.D. dissertation, MIT.

## Maciej Machnicki and Joanna Zaleska

University of Leipzig; University of Warsaw  
 j\_zaleska@yahoo.com; mmachnicki@topolowa.net

### Syllable-driven conspiracy effects in European Portuguese

1. **Introduction:** The aim of this paper is to present an account of European Portuguese syllable structure from two perspectives: rule-based and constraint based. It is argued that an analysis couched in Optimality Theory is superior to the derivational alternative as it provides a formal means to capture the unity behind three disparate processes that conspire to repair illicit syllables.

2. **Problem and data:** European Portuguese imposes a number of restrictions on its syllable structure: Minimal Sonority Distance (MSD) of at least two degrees of sonority between segments in an onset, a Coda Condition, limiting coda segments to [l r ʃ ʒ], and a ban on complex codas (Mateus & d'Andrade 2002). Mateus & d'Andrade point out that a number of words, such as *pneu* ['pneu] 'tyre' or *facto* ['faktu] 'fact', seem to violate these principles and therefore call for an explanation. The support for the exceptional status of such forms comes from their behaviour in regional variants, child language and colloquial speech. A different set of exceptional forms comes up as a result of the process of vowel deletion, discussed in more detail, though without reference to the above mentioned

constraints, by Coetzee (2004). In casual speech, some unstressed vowels are elided, leaving behind illicit clusters. For example, in the word *dever* [di'ver] 'to owe', the first vowel is often deleted, resulting in an MSD-violating cluster dv-: [d'ver]. Another process discussed here is vowel nasalization, whereby vowels coalesce with the following tautosyllabic nasal consonants to create a nasal vowel, as demonstrated by the pair of indefinite articles: the feminine *uma* [u.mə] and the masculine *um* [ũ]. The process is fed by vowel deletion. Thus the word *fome* [fõ.mi] 'hunger' is pronounced as [fõ] when the word-final vowel is deleted in casual speech.

3. **Rule-based analysis:** Following Mateus & d'Andrade, we assume phonetically empty nuclei as a tool to deal with unlicensed clusters. These are inserted to allow for the creation of an additional, licit, syllable with a singleton onset. Forms such as [d'ver] are also considered to contain empty nuclei. Here, they are seen to be the result of a vowel deletion rule which only affects the melodic material, while leaving the prosodic structure intact. We argue that such an analysis is untenable as it predicts incorrect results for words with vowel nasalization: if the vowel deleted in [fõ.mi] left behind an empty nucleus, the nasal consonant would occupy the onset of the second syllable and the context for vowel nasalization would not be met. Consequently, in [d'ver] two separate rules must be in operation: one deleting the vowel together with the associated nucleus, and another one, inserting an empty nucleus to repair the syllable structure. The rule deriving the nasalized vowel in [fõ] must crucially be ordered after the vowel deletion rule and before the creation of empty nuclei.

4. **OT analysis:** The deletion of melodic material, the insertion of empty nuclei and the vowel nasalization all seem to form part of a conspiracy against ill-formed syllable margins. While in the derivational approach multiple, formally unrelated, rules are required to achieve these results, Optimality Theory offers a way to express the connection between the three processes. This is done straightforwardly by ranking the constraints controlling syllable structure (MSD, CODA CONDITION and COMPLEX [Coda]) above the constraints barring empty nuclei and coalescence (FILLNUC and UNIFORMITY, respectively). The result is a complete account of all the discussed data, in which three disparate processes are driven by the same conditioning factors.

## References

- Coetzee, Andres W. 2004. What it means to be a loser: Non-optimal candidates in Optimality Theory. PhD dissertation. Amherst: University of Massachusetts, ms.
- Mateus, Maria Helena & Ernesto d'Andrade. 2002. *The phonology of Portuguese*. Oxford: Oxford University Press.

## **Marta Marecka, Donata Janiszewska, and Anna Jelec**

Faculty of English, Adam Mickiewicz University in Poznań, Poland

mmarecka@wa.amu.edu.pl; donata.janiszevska@gmail.com; ajelec@wa.amu.edu.pl

### **Not in the same team: phonological short-term memory and phonological sensitivity do not interact to produce vocabulary learning effects**

Phonological short-term memory (phonological STM), the memory component responsible for storing verbal information over short periods of time, has long been considered important for word learning. Deficits in phonological STM have been found in people who have severe problems with foreign vocabulary learning (Palladino and Ferrari 2008; Gupta et al. 2003; Baddeley, Papagno, and Vallar 1988). Lower STM scores are also associated with smaller vocabulary ranges in children (Gathercole and Baddeley 1989; Gathercole 1995; Jarrold et al. 2004).

Several researchers demonstrated that phonological sensitivity, the ability to dissect words into smaller phonological units and manipulate them, is important for vocabulary acquisition (Bowey 2001; de Jong, Seveke, and van Veen 2000; Bowey 1996; McBride-Chang et al. 2005). Phonological sensitivity might be a mediating factor in the relationship between phonological STM and word learning. For instance, Bowey (1996; 2001) noticed that the effect of phonological STM on vocabulary range in small children disappears when phonological sensitivity scores are controlled for in stepwise regression analysis.

This study assumes that phonological sensitivity is involved in word learning within phonological STM. Following the model by Brown and Hulme (1996), we hypothesised that whenever a new word is encountered, new phonological representation needs to be created in the STM using phonological sensitivity. Thus, we analysed whether phonological sensitivity is a mediating factor in the relationship between phonological STM and vocabulary acquisition. To investigate our hypothesis, we tested 46 Polish third-graders learning English at school on their knowledge of English vocabulary (Marecka, in preparation), phonological sensitivity in Polish and in English (Wagner et al. 2013; Bogdanowicz 2009; Szczerbiński and Pelc-Pękała 2009), as well as phonological memory. We ran correlation analyses of all the variables, as well as a backward stepwise regression to establish the variables most relevant in the study. Variables that correlated with the knowledge of English vocabulary included: non-verbal intelligence (Raven's raw scores  $r = 0.45$ ,  $p < .001$ ), phonological memory in the task with completely foreign nonwords ( $r = 0.33$ ,  $p < .05$ ), and phonological sensitivity tasks in English ( $r = 0.37$ ,  $p < .05$ ). However, mediation analysis showed no interaction effect of these variables.

This means that the effect of phonological short-term memory on vocabulary range is not mediated by phonological sensitivity, as we previously assumed. Both phonological short-term memory and phonological sensitivity seem to play a role in long-term foreign vocabulary learning, but they do not appear to be parts of the same system. Our results contradict the claims by Bowey (2001), who points to phonological awareness as the underlying factor in the phonological loop - vocabulary learning relationship.

## References

- Baddeley, Alan D., Costanza Papagno, and Giuseppe Vallar. 1988. „When long-term learning depends on short-term storage”. *Journal of Memory and Language* 27 (5): 586–95.
- Bogdanowicz, Marta. 2009. „Nieznany Język”. In *DYSLEKSJA 3 - Diagnoza dysleksji u uczniów klasy III szkoły podstawowej*. Warszawa: Pracownia Testów Psychologicznych.
- Bowey, Judith A. 1996. „On the association between phonological memory and receptive vocabulary in five-year-olds”. *Journal of Experimental Child Psychology* 63 (1): 44–78.
- . 2001. „Nonword Repetition and Young Children’s Receptive Vocabulary: A Longitudinal Study”. *Applied Psycholinguistics* 22 (03): 441–69.
- Brown, Gordon D. A., and Charles Hulme. 1996. „Nonword Repetition, STM and Word Age-of-Acquisition: A Computational Model”. W *Models Of Short-Term Memory*, edited by Susan E. Gathercole. Psychology Press.
- De Jong, Peter F., Marie-José Seveke, and Marjo van Veen. 2000. „Phonological Sensitivity and the Acquisition of New Words in Children”. *Journal of Experimental Child Psychology* 76 (4): 275–301.
- Gathercole, Susan E. 1995. „Is nonword repetition a test of phonological memory or long-term knowledge? It all depends on the nonwords”. *Memory & Cognition* 23 (1): 83–94.
- Gathercole, Susan E., and Alan D. Baddeley. 1989. „Evaluation of the role of phonological STM in the development of vocabulary in children: A longitudinal study”. *Journal of Memory and Language* 28 (2): 200–213.
- Gupta, Prahlad, Brian MacWhinney, Heidi M. Feldman, and Kelley Sacco. 2003. „Phonological memory and vocabulary learning in children with focal lesions”. *Brain and Language* 87 (2): 241–52.
- Jarrold, Christopher, Alan D Baddeley, Alexa K Hewes, Tansy C Leeke, and Caroline E Phillips. 2004. „What links verbal short-term memory performance and vocabulary level? Evidence of changing relationships among individuals with learning disability”. *Journal of Memory and Language* 50 (2): 134–48.
- Marecka, Marta. In preparation. Test słownictwa angielskiego dla klas trzecich szkół podstawowych.
- McBride-Chang, Catherine, Jeung-Ryeul Cho, Hongyun Liu, Richard K. Wagner, Hua Shu, Aibao Zhou, Cecilia S-M. Cheuk, and Andrea Muse. 2005. „Changing models across cultures: Associations of phonological awareness and morphological structure awareness with vocabulary and word recognition in second graders from Beijing, Hong Kong, Korea, and the United States”. *Journal of Experimental Child Psychology* 92 (2): 140–60.

- Palladino, Paola, and Marcella Ferrari. 2008. „Phonological sensitivity and memory in children with a foreign language learning difficulty”. *Memory* 16 (6): 604–25.
- Raven, John C., Teresa Szustrowa, and Aleksandra Jaworowska. 2003. *Test Matryc Ravena w Wersji Kolorowej (TMK)*. Warszawa: Pracownia Testów Psychologicznych.
- Szczerbiński, Marcin, and Olga Pelc-Pękała. 2009. „Usuwanie Fonemów dla klasy III”. In *DYSLEKSJA 3 - Diagnoza dysleksji u uczniów klasy III szkoły podstawowej*. Warszawa: Pracownia Testów Psychologicznych.
- Wagner, Richard K., Joseph K. Torgesen, Carol Alexander Rashotte, and Nick A. Pearson. 2013. *Comprehensive Test of Phonological Processing-Second Edition: CTOPP-2*. PRO-ED.

## Christina Märzhäuser

LMU Munich, Germany

Christina.Maerzhaeuser@romanistik.uni-muenchen.de

### Bare nominals as referring expressions in Spanish and French bare noun constructions

Four construction patterns in which bare singular count nouns (bare nouns, abbrev. BNs) can acquire referential status are analyzed along corpus data from French and Spanish, namely

- (1) Coordinated BNs [N + Coord + N],  
e.g. Span. [Padre y coche] atravesaron la puerta del garaje.  
Father and car passed through the door of the garage.
- (2) Temporal BNs [(P)+N<sub>TEMP</sub>],  
e.g. Span. Han ido [lunes] y han llegado hoy.  
They went there (on) monday and arrived today.
- (3) Locative BNs [(V)+(P)+N],  
e.g. Fr. Quelqu'un qui vit très longtemps à Paris a du mal aussi à vivre [en province], quoi.  
Someone who lived for a very long time in Paris has problems to live in (the) ,country side'.
- (4) BN doubling [(P)+N+P+N],  
e.g. Fr. Le jour est compté [de matin à matin] puis [de soir à soir].  
Days are counted from morning to morning, then from evening to evening.

The mechanisms licensing a referential interpretation of the bare nouns in these different constructions are not straight-forward syntax-semantics interface mechanisms, but arise from an interaction of i) syntactic pattern and constructional semantics, ii) of lexical properties of the nouns and of the construction on the lexicon-syntax border linked to world-knowledge, and iii) of the referential frame the expression is anchored in discourse and communicative interaction. The data analysis tries to account for those different levels in BN resolution.

The analysis of the BN's referential status is based on a cognitive model of reference which combines the discourse prominence scale sketched for example in Chiriacescu & von Heusinger (2009), and scalar approaches to reference from a cognitive perspective, as presented in the givenness hierarchy Gundel et al.'s (1993), to create a tool for a fine-grained analysis of different kinds of reference ranging from topical and specific-definite to weakly referential and kind-referring.

For some bare noun data, such as Fr. *Tous les soirs avec eux il faut aller [en discothèque]*, it is not fully clear whether the identity or only the properties of the nominal expression are at stake. Should *discothèque* be interpreted as weakly referential? Or could it (implicitly) refer to a unique, specific disco? Are we talking about whatever (non-specific) place to go out/dancing? Or simply facing an activity reading, such as ‚to go out at night‘? To account for those fuzzy cases in regard to referentiality and ‚identity matters‘ within the four constructions, the idea of (speaker-intended) referential profiling is proposed.

## References

- Beeching, Kate. 1998. Corpus of spoken French. Available online: [www.llas.ac.uk/resourcedownloads/80/mbo16corpus.pdf](http://www.llas.ac.uk/resourcedownloads/80/mbo16corpus.pdf). (access 5-2-14).
- Chiriacescu, Sofiana & von Heusinger, Klaus. 2009. „Pe-marking and referential persistence in Romanian. In *Focus at the Syntax-Semantics Interface*. SinSpec - Working Papers of the SFB 732, Vol. 3., edited by A. Riester and E. Onea, 1-17. Stuttgart: University of Stuttgart.
- Cohen, Dana & Schwer, Sylviane. 2010. „Proximal Deictic Temporal Reference with Calendar Units.“, conference paper TEMPTYPAC Workshop, Paris 11-12 March 2010.
- Gundel, Jeanette K., Nancy Hedberg, Ron Zacharski. 1993. „Cognitive status and the form of referring expressions in discourse“. *Language* 69: 274-307.
- Heycock, Caroline & Zamparelli, Roberto. 2003. „Coordinated bare definites.“ *Linguistic Inquiry* 34: 443- 469.
- Laca, Brenda. 1999. „Presencia y ausencia de determinante.“, In *Gramática descriptiva de la lengua española*, Vol.1, Madrid: Real Academia Española p.891-928
- Le Bruyn & de Swart. Forthcoming. „Bare coordination: the semantic shift“. *Natural Language and Linguistic Theory*. (ms.)
- Märzhäuser, Christina. 2013. „Coordinated bare nouns in French, Spanish and European Portuguese,“ In *New Perspectives on Bare Noun Phrases in Romance and Beyond*, edited by Johannes Kabatek and Albert Wall, 283-300. Frankfurt: John Benjamins.
- Roodenburg, Jaspers. 2004. „French bare nouns are not extinct: The Case of Coordinated Bare Nouns.“ *Linguistic Inquiry* 35: 301-313.
- Stvan, Laurel. 2007. „The functional range of bare singular count nouns in English“. In *Nominal determination. Typology, context constraints and historical emergence*. edited by Elisabeth Stark et al., 171-187. Amsterdam: John Benjamins.

## Thomas McFadden

ZAS, Berlin, Germany

mcfadden@zas.gwz-berlin.de

### Nominative stem-allomorphy and the structure of case

Finnish nouns like *ihminen* show a stem alternation between Nom *-nen* and *-s(e)*-elsewhere (Table 1). Unlike with other alternations (e.g. Nom *katu* vs. Gen *kadu-n*), the conditioning here can't be stated phonologically, but must refer to case. Such alternations are found in many Nom-Acc languages, but with an apparent restriction: case-sensitive stem allomorphy may distinguish Nom from other cases, but may **not** distinguish among the others. Where non-Nom cases differ in stem, this is due to the phonology, not the category of the endings. So *katu* has Part *katu-a*, because weakening happens in closed syllables, but all non-Nom cases of *ihminen*, have *-s(e)*-. Why is Nom special? One possibility is that what matters is not case per se, but the presence of a suffix, which Noms tend to lack. This works for some examples, but it can't be the whole story. First, in Icelandic and Latin, Nom **does** have a suffix, but still shows special stems. Icelandic *mað-ur* has the Nom ending *-ur* but the irregular stem *mað-* (elsewhere *mann-*, Table 2). Latin *senex* has the Nom ending *-s* added to a special stem *senec-* (elsewhere *sen-*, Table 3). Second, in Tamil, Noms are endingless, but so is one form of the Gen, yet this patterns with the non-Nom cases for allomorphy. E.g. *maram* has a Nom stem in *-m*, but the endingless Gen has the elsewhere stem *-tt-* (Table 4), thus the alternation is not conditioned by endinglessness. Another possibility is that Nom's specialness is just part of the common observation that irregularity is found in the most frequent and unmarked forms. Indeed, this might be expected due to sound changes mangling the stems of Nom forms, which due to frequent endinglessness are often word-final. Prehistoric changes of this sort e.g. created the alternation in Latin *hom-ō*, *hom-in-is*. This predicts a tendency, with Nom most frequently distinguished, but the other cases sometimes having irregular stems as well. However, a survey of declensions in Finnish, Icelandic, Latin and Tamil (and a preliminary survey of Russian) has turned up a series of alternations singling out Nom, but **no** other case-based stem irregularities. In each language this pattern could be accidental, but its replication across all four, representing three families and both agglutinative and fusional types, suggests something deeper. If it stands up cross-linguistically, it is analogous to Bobaljik's (2012) findings for suppletion in comparatives and superlatives and tells us something about the nature of case categories: only **some** case distinctions can trigger stem allomorphy. We can explain this under Caha (2009)'s proposal that the cases involve nested structures, such that Acc is Nom plus a head, Gen is Acc plus a further head etc. (Tree 1). Thus all cases but Nom have the head B, which triggers

non-Nom stem forms. So far, this parallels Bobaljik’s account of the co-occurrence of comparative and superlative suppletion, based on Tree 2. But while Bobaljik found examples with distinct suppletive comparative and superlative stems (Latin *bonus* ~ *melior* ~ *optimus*), I have found no such patterns for case, e.g. distinct Nom, Acc and Gen stems. I propose that this is a locality effect, due to an Embick (2010) cyclic node between B and C. When the stem form is determined, B is visible, but C, D, etc. are not. This falls out if Nom is the **lack** of a case head (overt ‘Nom’ suffixes must be ‘dissociated morphemes’, Embick and Noyer, 2001) so that B is the first head above the stem, and there is a phase boundary above B, as proposed for PP on syntactic grounds by Abels (2003), Rezac (2008). The only exceptions I have found are nouns like Latin *iter*, where the split falls between Nom/Acc and all other cases (Table 3). However, this occurs only when Acc is fully syncretic with Nom (also Russian nouns like *mat* ‘mother’, stem *mater-* outside the Nom/Acc). This favors accounts of such syncretisms in terms of the underlying features as opposed to their surface realization. I.e. the ‘Acc’ forms of nouns like *iter* must be structurally Nom when stem allomorphy is determined, rather than structurally Acc with an underspecified Nom/Acc exponent

	'street'	'person'
<b>Nom</b>	katu	ihmi-nen
<b>Gen</b>	kadu-n	ihmi-se-n
<b>Part</b>	katu-a	ihmi-s-tä
<b>Iness</b>	kadu-ssa	ihmi-se-ssä

Table 1: Finnish

	'horse'	'man'
<b>Nom</b>	hest-ur	mað-ur
<b>Acc</b>	hest	mann
<b>Gen</b>	hest-s	mann-s
<b>Dat</b>	hest-i	mann-i

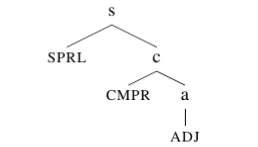
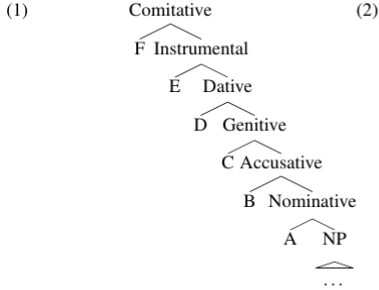
Table 2: Icelandic

	'old man'	'man'	'journey'
<b>Nom</b>	senex	hom-ō	it-er
<b>Acc</b>	sen-em	hom-in-em	it-er
<b>Gen</b>	sen-is	hom-in-is	it-iner-is
<b>Dat</b>	sen-ī	hom-in-ī	it-iner-ī

Table 3: Latin

	'tree'
<b>Nom</b>	maram
<b>Acc</b>	maratt-ai
<b>Dat</b>	maratt-ukku
<b>Gen</b>	maratt-ooḍa/maratt-∅

Table 4: Tamil





## Bibliography

- Abels, Klaus. 2003. The nature of adposition stranding and universal grammar. Doctoral Dissertation, University of Connecticut.
- Bobaljik, Jonathan David. 2012. *Universals in comparative morphology: Suppletion, superlatives, and the structure of words*. Cambridge, Mass.: MIT Press.
- Caha, Pavel. 2009. The nanosyntax of case. PhD Dissertation, University of Tromsø.
- Embick, David. 2010. *Localism versus globalism in morphology and phonology*. Cambridge, Mass.: MIT Press.
- Embick, David, and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32: 555-595.
- Rezac, Milan. 2008. Phi-agree and theta-related case. In *Phi theory: Phi-features across modules and interfaces*, ed. Daniel Harbour, David Adger, and Susana Béjar, 83-129. Oxford: Oxford University Press.

## Dimitra Melissaropoulou

University of Patras, Greece  
dmelissa@upatras.gr

## Word formation in the light of the language contact factor: the case of Cappadocian Greek

Undoubtedly, recent linguistic research, possibly as a reaction to the traditional historical linguistics approach, has favored greatly the value of external, i.e. contact explanations as a source of variation and change (for relevant discussion see among others Thomason 2001, 2010, Matras 2010, Heine and Kuteva 2010). Nevertheless, although variation and change in inflectional morphology as a contact induced phenomenon has been treated and various claims have been put forward (see among others Gardani 2008, Hickey 2010 and references therein), there is little or no awareness on the existence of studies treating grammatical replication in the domain of word formation and more specifically, in derivational processes, i.e. prefixation and suffixation.

The aim of this paper is to put prominently under scrutiny the issue of variation in derivation, i.e. prefixation and suffixation, in situations of language contact. As a case-in-point, we examine Cappadocian Greek, a Modern Greek dialect that is often highlighted in the relevant literature as a prototypical example of *heavy borrowing*, referring to ‘overwhelming long-term cultural pressure’ (Thomason & Kaufman 1988: 50) due to contact with the agglutinative Altaic Turkish.

To this end, the phenomena that are put under scrutiny are the following: a) the process of prefixation. While prefixation is a very productive word formation process in all different varieties of Greek, including the standard, (e.g. *troo<sub>V</sub>* ‘to eat’ > *para<sub>pref</sub>troo<sub>V</sub>* ‘to eat to exaggeration’), Cappadocian Greek does not display productive –but rather very few lexicalized– prefixed word forms under the influence of the suffixing Turkish language. b) The restricted number of derivational suffixes in use (focusing on but not restricted to deverbal and evaluative suffixes). For example in Ulağaç Cappadocian the deverbal suffixes *-mos* and *-simo* are practically extinct and their function is undertaken by the competitive suffix *-ma*. The deverbal noun that is formed from the verb *pjēno* ‘to go’, in Ulağaç Cappadocian *peno* is not *\*penimos* ‘going’ in correspondence with the elsewhere found *pjēmos* but *penima* (cf. Kesisoglou 1951, Janse forthcoming).

Our data show that language contact cannot account equally adequately for both phenomena. Whilst loss of prefixation can be alluded to the contact factor in relation with typological affinity and markedness, confinement of the range of the suffixes in use and minimization of rivalry among suffixes is accounted for as a primarily language internal development, one of the lesser or greater rearrangements of the specific system paving the way into simplification in the paradigmatic relations (cf. Trudgill 2009, 2011).

The above discussion aims to contribute, on the one hand, to the research on the role and the limits of the contact factor to a word formation process in terms of grammatical pattern replication, while, on the other hand, to lend further support to the thesis that combinatorial accounts, addressing both internal and external developments widen the perspective and offer the most plausible explanations for linguistic innovations in language contact settings (see among others Poplack & Levey 2010, Matras 2010, Heine and Kuteva 2010, Azucena 2013).

### Selected References

- Azucena, P. A. 2013. Contact-induced Change and Internal Evolution: Spanish in Contact with Amerindian Languages. In Léglise I. & C. Chamoreau (eds.), *The Interplay of Variation and Change in Contact Settings*. Amsterdam/Philadelphia: John Benjamins, 165-198.
- Dawkins, R. 1916. *Modern Greek in Asia Minor: A Study of the Dialects of Silli, Cappadocia and Pharasa with Grammar, Texts, Translations and Glossary*. Cambridge: Cambridge University Press.
- Gardani, F. 2008. *Borrowing of inflectional morphemes in language contact*. Frankfurt: Peter Lang.
- Heine, B. & T. Kuteva. 2010. Contact and Grammaticalization. In Hickey, R. (ed.), *Handbook of Language Contact*. Oxford: Blackwell, 86-105.
- Hickey, R. (ed.) 2010. *The handbook of Language Contact*. Malden, MA: Wiley-Blackwell.

- Janse, M. forthcoming. Cappadocian. In Tzitzilis, C. (ed.), *The Greek language and its dialects* [I elliniki glossa kai oi dialektoi tis].Thessaloniki.
- Matras, Y. 2010. Contact, convergence and typology. In Hickey, R. (ed.), *Handbook of Language Contact*. Oxford: Blackwell, 66-85.
- Poplack, S. & S. Levey. 2010. Contact-induced grammatical change: A cautionary tale. In Auer, P. & J. E. Schmidt (eds.), *Language and Space – An international handbook of linguistic variation: Volume 1 – Theories and methods*. Berlin: Mouton de Gruyter, 391-419.
- Thomason, S. G. 2001. *Language Contact. An Introduction*. Edinburgh University Press.
- Thomason, S. G. 2010. Contact Explanations in Linguistics. In Hickey, R. (ed.), *Handbook of Language Contact*. Oxford: Blackwell, 31-47.
- Thomason, S.G. & T. Kaufman. 1988. *Language contact, creolization and genetic linguistics*. Berkeley: University of California Press.
- Trudgill, P. 2009. Sociolinguistic typology and complexification. In G. Sampson, D. Gil, & P. Trudgill (eds.), *Language Complexity as an Evolving Variable*. Oxford: Oxford University Press, 98-109.
- Trudgill, P. 2011. *Sociolinguistic Typology: Social Determinants of Linguistic Complexity* (Oxford Linguistics). Oxford: Oxford University Press.

## Karolina Mieszkowska and Agnieszka Otwinowska-Kasztelanic

University of Warsaw, Poland

mieszkowska@gmail.com, a.otwinowska@uw.edu.pl

### **Mental state language in the narratives of Polish monolingual and Polish-English immigrant children living in the UK**

The linguistic development is associated with the emergence of thinking about the thoughts and motives of self and others (de Villiers & de Villiers 2000). However, to date there has been little research on the influence of bilingual child language development on the development of mental state language. The present paper examines how simultaneous acquisition of Polish and English impacts the use and understanding of mental terms (e.g. ‘see’, ‘believe’, ‘think’, ‘want’) in children’s narratives. Adopting child-made narratives provides insight into children’s own inclination to talk about mental states spontaneously.

In the study, 40 Polish immigrant children in the UK arranged in two age groups (4;6-5;5 and 5;6-6;5) were asked to tell a story based on a set of pictures (telling mode) and then retell a story told by the experimenter and supported by a different picture story (retelling mode) (Gagarina et al. 2012). The task was conducted in both of the children’s languages. The stories were recorded and transcribed in the CHAT format. Narrative macrostructure (story complexity and

coherence) was analysed together with children's lexical choices of mental terms. Additionally, children's receptive and productive vocabulary in both languages was measured with the use of standardized tests.

The Polish-English immigrants' results on the story structure and the use of mental state verbs are contrasted with those of 40 Polish monolingual children matched for age. The between-group analyses include (1) comparing the quantity and quality of mental state terms used by Polish monolinguals brought up in Poland and Polish children living in the UK, and (2) examining the quantity and quality of mental state terms used by Polish monolinguals and Polish-English immigrants in the two age groups (4;6-5;5 and 5;6-6;5). Additionally, children's told and retold stories are compared in order to investigate the impact of scaffolding on child's mental state language.

The present study is part of a larger project that investigates linguistic and cognitive development of Polish immigrant preschool children living in the UK.

#### References:

- De Villiers, Jill, G., & de Villiers, Peter, A. 2000. "Language for thought: Coming to understand false beliefs." In *Language in Mind: Advances in the Study of Language and Thought*, edited by Dedre Gentner and Susan Goldin-Meadow, 335-384. Cambridge: MIT Press.
- Gagarina, Natalia, Klop, Daleen, Kunnari, Sari, Tantele, Koula, Välimaa, Taina, Balčiūnienė, Ingrida, & Walters, Joel. 2012. *Narrative Assessment Instrument for (Multilingual) Children*. Berlin: ZAS Papers in Linguistics.

## Mark Newson

Eötvös Loránd University, Budapest and the Research Institute for Linguistics of the Hungarian Academy of Science, Hungary  
mnewson1@gmail.com

## English Modal Auxiliaries and Late Insertion

There is a debate within late vocabulary/lexical insertion theories concerning the adoption of the Subset or Superset Principles: whether the exponents can be associated with more or less features than they are used to spell out. But what happens in situations where these principles are inapplicable? For adherents to the Subset Principle, a number of possibilities have been explored (Halle and Marantz 1993, Noyer 1997). For adherents to the Superset Principle, however, things are more

difficult. The Superset Principle assumes that all underlying features must be realized (Caha 2009). It follows that the Superset Principle is always in play.

The present paper will provide an analysis of English Modal Auxiliaries which necessitates the assumption that sometimes certain underlying features are not spelled out. Assuming otherwise leads to an inability to capture the obvious generalization. However, it will be argued that this can be squared with the Superset Principle under the assumption that certain features are earmarked for non-realisation, if necessary

A partial analysis of modal usage can be provided on the assumption of three main feature types. One concerns the type of modality (epistemic, deontic, etc.), which Kratzer (1977) argues to be an argument of the modal and is by and large influenced by context. Although modal type is contextually determined to some extent, certain syntactic facts suggest that this cannot be wholly the case (e.g. only 'dynamic' modality is compatible with tense). It will be proposed that modal type is distinguished by three major features, whose exact interpretation is mediated via contextual information. The second feature is the degree of modality and is based on Kratzer's second modal argument concerning the notions 'follows (logically) from' [ff] and '(logically) compatible with' [cw]. Kratzer uses these notions to distinguish between the meaning of *must* and *can*. It will be argued that the same feature distinction is operable for all kinds of modal type, giving rise to oppositions such as *must-may* (epistemic), *must-can* (Deontic) and *will-can* (Dynamic). The third feature concerns the distinction between modals *will-would*, *can-could*, etc. It will be argued that this distinction concerns the degree of (un)certainly expressed, a notion relating to evidentiality [<sup>^</sup>ev]/[-<sup>v</sup>ev]. Following the analysis of Palmer (1987) the modals used to realise these features are given in table 1.

The data presented in table 1 indicate that while the same modals may be used to express different modality types, there is no flexibility in modal usage when it comes to expressing the other features. For example, *could* can be used to express all three modal types, but only ever expresses the same degree ([cw]) and evidentiality ([<sup>v</sup>ev]). Exactly the same pattern is apparent with all the modals. This generalisation is not explained if we assume that each modal is associated with every feature that it can be used to realise, as the Superset Principle would dictate. It can be explained however if we assume the feature association for the modals given in table 2 and a method of selection in which the type feature is only realised when possible. An Optimality Theory analysis will be proposed to formalise this process.

	[epistemic]	[deontic]	[dynamic]
[ff], [^ev]	must will shall	must shall	will
[ff], [v^ev]	should would	should	would
[cw], [^ev]	may	may can	can
[cw], [v^ev]	might could	might could	could

**table 1: the realisation of modal features by modal auxiliaries**

may	[epistemic], [cw], [^ev]	might	[cw], [v^ev]
can	[dynamic], [cw], [^ev]	could	[dynamic], [cw], [v^ev]
will	[dynamic], [ff], [^ev]	would	[dynamic], [ff], [v^ev]
shall	[deontic], [ff], [^ev]	should	[deontic], [ff], [v^ev]
must	[deontic], [ff], [^ev]		

**table 2: modal auxiliaries and their associated features**

## References

- Halle, Morris and Alec Marantz. 1993. "Distributed Morphology and the pieces of inflection." In *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, edited by Kenneth Hale and Samuel Jay Keyser, 111-176. Cambridge, MA: MIT Press.
- Noyer, Rolf. 1997. *Features, Positions and Affixes in Autonomous Morphological Structure*. New York: Garland Publishing. Revised version of 1992 MIT Doctoral Dissertation.
- Caha, Pavel. 2009. "The Nanosyntax of Case." Ph.D. thesis, University of Tromsø.
- Kratzer, Angelika. 1977. "What 'Must' And 'Can' Must And Can Mean" *Linguistics and Philosophy* 1: 337-355.
- Palmer, Frank. R. 1987. *The English Verb* (second edition). London: Longman

## Ruth Osimk-Teasdale, Nora Dorn and Claudio Schekulin

University of Vienna, Austria

ruth.osimk-teasdale@univie.ac.at; nora.dorn@univie.ac.at;

claudio.schekulin@univie.ac.at

### POS-tagging the Vienna-Oxford International Corpus of English: strategies and rewards

VOICE POS, the part-of-speech tagged version of the Vienna-Oxford International Corpus of English (VOICE), was made available as a free online version, as well as a downloadable XML version, in 2013. VOICE consists of naturally occurring interactions in English as a lingua franca (ELF), which is understood as “any use of English among speakers of different first languages for whom English is the communicative medium of choice, and often the only option” (Seidlhofer 2011, 7). The conversations recorded and transcribed for VOICE contain the full range of spoken features (such as hesitations, pauses of different lengths, overlaps, onomatopoeia, speaker noises, etc.) as well as those of plurilingual language use (e.g. code switches, coinages, non-canonical language use).

The POS-tagging of VOICE entailed a significant number of challenges, mainly due to this highly interactive, spoken, and plurilingual nature of the data (Osimk-Teasdale 2013). However, in the annotation process, these initially ‘problematic’ aspects of the data were elucidated, rather than glossed over, which resulted in the application of some unprecedented innovations in tagging procedures, such as the dual tagging system for language forms and functions. (Osimk-Teasdale 2014, VOICE Project 2013). In this presentation, the main principles and solutions for POS-tagging VOICE data are introduced and exemplified by utilizing the VOICE POS online interface in real time. Moreover, a number of research possibilities with VOICE POS will be presented.

#### References

- Osimk-Teasdale, Ruth. 2013. “Applying Existing Tagging Practices to VOICE”. In *Corpus Linguistics and Variation in English: Focus on Nonnative Englishes* (Proceedings of ICAME 31), edited by Joybrato Mukherjee and Magnus Huber. Helsinki: VARIENG.
- Osimk-Teasdale, Ruth. 2014. “‘I just wanted to give a partly answer’: Capturing and Exploring Word Class Variation in ELF Data”. *Journal of English as a Lingua Franca* 3 (1), 109-143.
- Seidlhofer, Barbara. 2011. *Understanding English as a Lingua Franca*. Oxford: Oxford University Press.

- VOICE Project. 2013. "VOICE Part-of-Speech Tagging and Lemmatization Manual." Accessed February 10, 2014. [http://www.univie.ac.at/voice/documents/VOICE\\_tagging\\_manual.pdf](http://www.univie.ac.at/voice/documents/VOICE_tagging_manual.pdf)
- VOICE. 2013. *The Vienna-Oxford International Corpus of English* (version POS Online 2.0). Director: Barbara Seidlhofer; Researchers: Stefan Majewski, Ruth Osimk-Teasdale, Marie-Luise Pitzl, Michael Radeka, Nora Dorn. Accessed February 10, 2014. <http://voice.univie.ac.at/pos/>.



## Jamal Ouhalla

University College Dublin, Ireland

### **Syntactic change in perspective: the development of genitive NPs and of differential direct object marking in Spanish Arabic.**

Kroch (2008) suggests that the dramatic decline in the verb-final word order in English towards the end of the 11<sup>th</sup> century and the beginning of the 12<sup>th</sup> century, rather than being a manifestation of an internal catastrophic change (Lightfoot 1991, 199), marked a shift to a new vernacular of Old English with distinctive grammatical properties that gained prominence as a result the new order established by the Norman Conquest. Emonds and Faarlund (2013) concur with the idea that this and other changes marked a shift to a new system, but argue that the latter, rather than being a vernacular of Old English, amounted to an entirely different North Germanic language, namely, Norse such that Modern English is Modern Norse.

This talk outlines another instance of the Emonds-Faarlund scenario, which took place in Spain in the 9<sup>th</sup> and 10<sup>th</sup> centuries (the formative period) and gave rise to Spanish Arabic (Corriente 1977) also known as Andalusí Arabic. This language later spread to the western part of North Africa by gradual substantial migration that lasted up to the early 17<sup>th</sup> century, and was largely responsible for the distinctive properties of current Western Arabic, widely thought to be of Romance origin (Heath 2002). The presentation focuses on three key changes, two of which involve NPs and one involves (differential) direct object marking with the dative preposition.

The first change affecting NPs amounted to the disappearance of the Construct State (e.g. ‘nuns the-convent’) characteristic of Classical Arabic and other Semitic languages, and its replacement with the Juxtaposition Genitive (e.g. ‘the-nuns the-convent’) and the Prepositional Genitive (e.g. ‘the-nuns of the-convent’). Only the Prepositional Genitive has survived in Western Arabic, with Construct State-like noun phrases being restricted to inalienable possession. Moreover, the Prepositional Genitive involved the use of the Romance preposition *d(e)* in addition to a new preposition developed by grammaticalization of an Arabic inalienable noun with the meaning ‘property (of)’ (Ouhalla 2009). The second change affecting NPs involved the order of modifying adjectives relative to the noun such that to the unique Classical Arabic word order [the-N the-A] (with concord in definiteness) was added the alternative word order [the-A the-N] in Spanish Arabic, which later disappeared and is no longer permissible in Western Arabic. There were additional patterns not attested in Classical Arabic that have survived in place names such as [the-N A], where the adjective is missing a definite article (e.g. ‘the-house white’ = Casablanca). In summary, Spanish Arabic NPs initially took on the properties of their

Romances counterparts at the time and later developed along broadly the same lines as their Romance counterparts.

The change that affected direct objects involved the marking of direct objects of transitive verbs, including 'kill', with the dative preposition (Corriente 1977). Although the evidence for the development of this property is not as clear, it appears to initially not have had a differential function involving animacy and other such considerations. Moreover, it largely disappeared in later stages. Significantly, though, a remnant of it is found in the dialect currently spoken in the region of North Africa overlooking the Strait of Gibraltar (Tangier-Tetuan-Chefchuen), where it appears with animate but not inanimate direct object *wh*-pronouns and subject *wh*-pronouns (e.g. ‘\*(to) who did you see?’ but ‘(\*to) what did you see?’ and ‘(\*to) who saw the cat?’) (Ouhalla 2009). This change, which amounts to a retreat of direct object marking with the dative preposition, mimics the change reported for Caribbean Spanish (Lunn 2002). Here again, Spanish Arabic appears to have taken on a Spanish property, which, moreover, underwent a change along the same lines as some Spanish dialects.

Are Spanish Arabic and its modern descendants Semitic languages with Romance Syntax or Romance languages with Semitic vocabulary (Lexicon)? What makes a (specific) language? Whatever the right answer turns out to be, the Emonds-Faarlund scenario for English is far from unique. Other candidates include Modern Amharic, with syntactic properties similar to those found in Oromo (a strictly head-final Cushitic language) and radically different from those of Classical Amharic, which are typically Semitic.

### Bibliography

- Corriente, Federico. 1977. *A Grammatical Sketch of the Spanish Arabic Dialect Bundle*.
- Emonds, Joseph and Jan Terje Faarlund. 2013. *English as North Germanic: Modern English is Modern Norse*. Ms., Palacky University, Olomouc, and University of Oslo.
- Heath, Jeffrey. 2002. *Jewish and Muslim Dialects of Moroccan Arabic*.
- Kroch, Antony S. 2008. Syntactic Change. In Mark Baltin and Chris Collins (eds.) *The Handbook of Contemporary Syntactic Theory*.
- Lightfoot, David. 1991. *How to set parameters: Arguments from language change*. Cam
- Lightfoot, David. 1999. *The development of language: Acquisition, change, and evolution*.
- Lunn, Patricia. 2002. *Tout se tient in Dominican Spanish*. In James F. Lee, Kimberly L. Geeslin & J. Clancy Clements (eds.), *Structure, meaning, and acquisition in Spanish: Papers from the 4th Hispanic Linguistics Symposium*, 65-72.
- Ouhalla, Jamal. 2009. *Variation and change in noun phrases: the evolution of the analytic type and the loss of the synthetic type*. *Brill's Annual of Afroasiatic Languages and Linguistics*.
2013. *A Descriptive and Comparative Grammar of Andalusí Arabic*. Edited by the Institute of Islamic Studies of the University of Zaragoza.

## Fryni Panayidou

Queen Mary University of London, Great Britain  
f.panayidou@qmul.ac.uk

### Colour Adjectives in Cypriot Maronite Arabic

This talk is concerned with adjective ordering and placement in Cypriot Maronite Arabic (CMA), which appears to be problematic for the assumption that adjectives of the same class behave uniformly (Cinque 1994, 2010; Kamp and Partee 1995, among others). The *Colour* class varies as to whether it will precede or follow *Nationality*:

- (1) a. *N* > *Nationality* > *Colour*                      b. *N* > *Colour* > *Nationality*  
t<sup>h</sup>avli l-italiko l-axmar                      t<sup>h</sup>avli li-prasino l-italiko  
table.def the-italian the-red                      table.def the-green the-italian  
'the red Italian table'                      the green Italian table'

Furthermore, some colour adjectives (Adjs) are restricted to a post-nominal position, while others are free to appear either pre- or post-nominally:

- (2) a. (\*l-axmar) t<sup>h</sup>avli l-axmar                      b. (li-prasino) t<sup>h</sup>avli li-prasino  
the-red table.def the-red                      the-green table.def the-green  
'the red table'                      'the green table'

The variation observed above is systematic and is dependent on whether the colour Adj is a native Arabic lexical item ('red', 'black', and 'white') or borrowed from Greek. The (a) examples above are instances of the former, and the (b) examples of the latter.

I propose that by understanding what motivates movement in the nominal domain, we are able to understand the CMA phenomena which, at first glance, seem to be anomalous. Following Cinque (2010), I argue that the trigger for movement is linked to maintaining nominality in the extended nominal projection. While borrowed Greek Adjs optionally merge with a nominal feature [N], native Arabic colour Adjs inherit [N] strictly via movement of an XP that contains the head noun, above the merging position of the colour Adj (Fig. 1). This accounts for the fact that native colour Adjs only surface post-nominally.

This analysis extends to other classes of Adjs in CMA. The classes of *Quality* and *Size*, which include native lexical items, but also some Greek loanwords that were nativised to resemble the Arabic nonconcatenative morphology, are always licensed via movement (Fig. 1). *Shape* and *Nationality*, which only consist of lexical items that are borrowed from Greek and have retained the Greek concatenative morphology, optionally merge with [N] (Fig. 2).

The discussion will additionally reveal that CMA does not adhere to the mirror image order of adjectives given in (3a), which is the order attested in other

Arabic dialects. Instead, CMA follows the order in (3b), which is witnessed in Celtic languages such as Welsh and Scottish Gaelic. The exception to the order in (3b) is the Arabic Colour class.

- (3) a. N > Nationality > Colour > Shape > Size > Quality *Standard Arabic*
- b. N > Quality > Size > Shape > Colour<sub>Greek</sub> > Nationality *CMA*

I will show that the proposed analysis is also able to capture the apparent ordering violations with Arabic Colour Adjs by employing the same mechanism as before, i.e. phrasal movement.

Figure 1 – Arabic classes (*Quality, Size, Colour<sub>Arabic</sub>*)

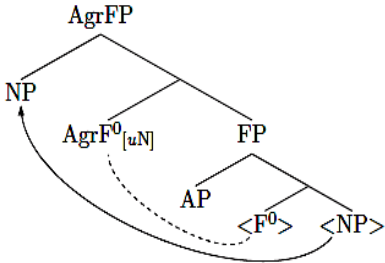
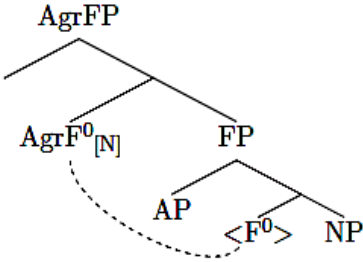


Figure 2 – Greek classes (*Shape, Nationality, Colour<sub>Greek</sub>*)



## References

- Cinque, Guglielmo. 1994. "On the evidence for partial N-movement in the Romance DP." In *Paths towards Universal Grammar: Studies in honor of Richard S. Kayne*, ed. by Guglielmo Cinque, Jan Koster, Jean-Yves Pollock, Luigi Rizzi, and Raffaella Zanuttini, 85–110. Washington, DC: Georgetown UP.
- Cinque, Guglielmo. 2010. *The syntax of adjectives: A comparative study*. Linguistic Inquiry Monographs 57. Cambridge, MA: MIT Press.
- Kamp, Hans, and Barbara Partee. 1995. "Prototype theory and compositionality." *Cognition* 57: 129–191.

## Andrea Pešková

Universität Hamburg, Germany  
andrea.peskova@uni-hamburg.de

## The Use of Subject Pronouns in a Consistent Pro-drop Language

Subject pronouns as functional words have been widely studied from a linguistic (e.g. Chomsky 1981; Frascarelli 2007), as well as, a socio-linguistic (e.g. Silva-Corvalán 2001) and even a psychological perspective (e.g. Pennebaker 2011). This paper belongs to the first group and investigates the use of pronominal subjects (PS) on a large database of spoken Buenos Aires Spanish (10 hours of familiar free interviews).

The observed variety belongs to consistent null-subject languages (cf. Biberauer et al. 2010). Whereas the grammarians assume that PS is overtly realized to mark contrast and emphasis or to undo ambiguities in Spanish (e.g. Luján 1999), the spoken data of various Spanish dialects provide clear evidence for a frequent use of overt PS, even in non-focal, non-contrastive and non-ambiguous contexts (e.g. Otheguy et al. 2007). As the null PS is a default form of the PS in Spanish, the fundamental question arises as to what reasons trigger the expression of PS. On one hand, there is obligatorily expressed PS when interpreted as Focus, Contrastive topic (for both cf. RAE 2010) or 'Disambiguating' topic (this paper). On the other hand, there is also a variable PS, i.e., the PS is but does not have to be expressed. The present study examines and discusses several linguistic factors (such as Grammatical person, Information structure, Specificity, Type of sentence, Verb reflexivity, Verb form ambiguity etc.), which may explain the variable use of PS (cf. e.g. Otheguy et al. 2007; Posio 2012). Following the study by Frascarelli (2007) on pro-drop in Italian, it is expected that the 'Information structure' plays a key role in the explanation of the use of variable PS: Whereas the PS as Aboutness-shift topic prefers the overt form, the PS as Familiar topic favors the null form. This tendency is also found in Spanish;

nevertheless, I will statistically demonstrate (by means of logistic regression) that the factors ‘Episode boundary’ and ‘Grammatical person’ exhibit even a stronger effect on the explanation of the use of PS.

Furthermore, it will be shown that the discourse properties of PS (focus and different types of topics) “have structural correlates both in phonology and in syntax” (Frascarelli & Hinterhölzl 2007, 89). As for the syntax, I model and discuss an order of different phrases (Topic, Focus) within the Cartographic approach (e.g. Rizzi 1997; Frascarelli 2007). As for the prosody, which is necessary for discourse interpretation of PS in contexts where the pragmatic argumentation may cause doubts, I describe intonational properties of more than one thousand overt PSs within the Autosegmental-Metrical Model (cf. Pierrehumbert 1980), applying the Spanish ToBI system for the prosodic annotation (cf. Prieto & Roseano 2010). The results show a categorical difference between focus (rising-falling tone) and topics (rising tone), however no systematic difference between the different types of topics is found.

In conclusion, it should be also pointed out that the use of PS in Spanish is one of the linguistic phenomena which nicely demonstrate that the grammar of a language needs to be considered independently of its usage (e.g. Newmeyer 2003; Adli 2011, and many others).

## References

- Adli, Aria. 2011. *Gradient Acceptability and Frequency Effects in Information Structure: A Quantitative Study on Spanish, Catalan, and Persian*. [Habilitationsschrift]. University of Freiburg.
- Biberauer, Theresa, Anders Holmberg, Ian Roberts, and Michelle Sheenan. 2010. *Parametric Variation: Null Subjects in Minimalist Theory*. Cambridge: Cambridge University Press.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Frascarelli, Mara. 2007. “Subjects, Topics and the Interpretation of Referential pro. An Interface Approach to the Linking of (Null) Pronouns.” *Natural Language and Linguistic Theory* 25(4): 691–734.
- Frascarelli, Mara, and Roland Hinterhölzl. 2007. “Types of Topics in German and Italian.” In *On Information Structure, Meaning and Form*, edited by Susanne Winkler and Kerstin Schwabe, 87–116. Amsterdam: John Benjamins.
- Luján, Marta. 1999. “Expresión y omisión del pronombre personal.” In *Gramática descriptiva de la lengua española*, edited by Ignacio Bosque and Violeta Demonte, 1275–1315. Madrid: Espasa Calpe.
- Newmeyer, Frederick J. 2003. “Grammar is Grammar and Usage is Usage.” *Language* 79(4): 682–707.
- Otheguy, Ricardo, Ana Celia Zentella, and David Livert. 2007. “Language Contact in Spanish in New York toward the Formation of a Speech Community.” *Language* 83(4): 770–802.

- Pennebaker, James. 2011. *The Secret Life of Pronouns. What Our Words Say About Us*. New York: Bloomsbury Press.
- Pierrehumbert, Janet B. 1980. *The Phonology and Phonetics of English Intonation*. Cambridge, MA: MIT Press.
- Posio, Pekka. 2012. *Pronominal Subjects in Peninsular Spanish and European Portuguese. Semantics, Pragmatics, and Formulaic Sequences*. [PhD Thesis]. Helsinki: University of Helsinki Press. Accessed May 12, 2013. <http://urn.fi/URN:ISBN:978-952-10-83203-7>.
- Prieto, Pilar and Paolo Roseano. 2010. *Transcription of Intonation of the Spanish Language*. München: Lincom.
- RAE (Real Academia Española). 2010. *Nueva gramática de la lengua española*. Madrid: Espasa Calpe.
- Rizzi, Luigi. 1997. "The Fine Structure of the Left Periphery." In *Elements of Grammar. Handbook in Generative Syntax*, edited by Liliane Haegeman, 281–337. Dordrecht: Kluwer.
- Silva-Corvalán, Carmen. 2001. *Sociolingüística y pragmática del español*. Washington: Georgetown University Press.

## Petr Pořízka

Palacký University Olomouc, Czech Republic  
 petr.porizka@upol.cz

### Olomouc Corpus of Spoken Czech – Pilot Version

The aim of this presentation is to introduce an ongoing, long-term project (started in 2003) and a pilot version of the Olomouc Spoken Corpus (OSC). Attention will be paid both to theoretical aspects (corpus structure, the way of transcript processing) and to practical demonstrations (corpus manager, possibilities of using/searching data, data retrieval etc.).

The main objective of the project was to create a database of spoken Czech that would reflect facticity and specific qualities of spoken texts in the most comprehensive and unreduced way. Therefore the OSC transcripts exist in two versions. So-called dual form of transcription has been used so far, including (1) phonetic transcription (reflection of real form of spoken texts; detailed registration of the segmental level including sound shifts in the stream of speech; elementary aspects of supra-segmental level, namely pauses and different types of intonation with regard to communication and semantic) and (2) orthographic transcription (used to include linguistic annotation, for example lemmatization or other forms of linguistic annotation, namely morphological tagging).

The transcripts are complemented by so-called sociolinguistic parameters of speakers: sex, age and age categories, education, profession, place of birth, all

places of residence, dialectal specifications of speaker's place of birth and his/her longest residence. All these parameters can be used while working with OSC as search filters.

OSC consists of two parts that were formed at different times and differ with their contents: (a) OSC-OL: collection from 2003–2007 – recordings and transcripts of the Olomouc urban speech, including both formal and informal communication (similarly to Prague and Brno Spoken Corpora, there is certain compatibility); (b) OSC-CZ: collection formed since 2008 until present time – spoken texts from different localities in Bohemia, Moravia and Silesia.

So-called SVIFT (Structured Vertical and Interlinear Format of Transcription) is the main format of transcripts: the text in simple .TXT format, structured and multi-layer, able to register significant aspects of spoken texts in individual layers. This text format is converted with the use of parser (sviftxml-parser; <http://corpus.upol.cz/sviftxml-parser>) in the final form of an annotated and structured XML document (SVIFT-XML format).

The instrument for utilization (data retrieval) is an important aspect of all language databases. The main corpus tool that was chosen in order to utilize the OSC data is EXMARaLDA ([http://www.exmaralda.org/en\\_index.html](http://www.exmaralda.org/en_index.html)), a tool that adequately visualizes dialogical character of spoken communication including its specific features (overlapping of speech turns, non-verbal communication, meta-text info etc.) and also offers adequate possibilities to search the data. EXMARaLDA uses so-called partitur notation (musical score) as a form of record. This multimodal tool is part of a set of instruments that form a very complex corpus manager.

The Internet portal <http://corpus.upol.cz> will meet the needs of the project.

## References

- Pořízka, P. 2009. *Transkripce a sběr dat v korpusech mluvené češtiny*. PhD. thesis (manuscript). Olomouc.
- Pořízka, P. 2009. "Olomouc Corpus of Spoken Czech: characterization and main features of the project." *Linguistik online* 38, 2/2009. Accessed February 14, 2013. <http://www.linguistik-online.de/>.
- Pořízka, P. 2008. "Olomoucký mluvený korpus – stav, metodologie, charakteristika." In *Grammar and Corpora / Gramatika a korpus 2007* edited by F. Štícha and M. Fried, s. 191–198. Praha: Academia.
- Pořízka, P. 2008. "Anotace orálních korpusů. Olomoucký mluvený korpus jako model." In *Čeština v mluveném korpuse* edited by M. Kopřivová and M. Waclawičová, 177–189. Praha: NLN.



Joseph Potashnik

Tel Aviv University

combray@gmail.com

## The Locus of the Causative-Unaccusative Alternation: Syntax or Lexicon?

1. **Introduction.** The well-known causative-unaccusative alternation (e.g. *the heat melted the ice / the ice melted*) has been a source of an ongoing debate among linguists. Two central approaches exist: (i) A syntactic, decompositional approach, which assumes that the relevant relation is established in the syntax (Alexiadou et al 2006, Harley 2008, Pyllkkänen 2008 and Ramchand 2008, among others). (ii) A lexicalist approach, which assumes that the alternation is derived in an active lexical component (Levin & Rappaport-Hovav 1995, Reinhart 2002, Koontz-Garboden 2009, Horvath & Siloni, 2011, to name a few). In this paper, I pursue two complementary tracks of argumentation, based on new empirical evidence, which lead to the conclusion that the alternation is lexically derived. First, I show that the generalizations taken to support syntactic decomposition have systematic and productive counterexamples. Second, I present novel evidence demonstrating that syntactic operations cannot give rise to the unaccusative alternation. The new data I discuss are consistent with lexical accounts, but not with syntactic ones.

2. **Evidence cited in favor of syntactic decomposition theories.** The existence of a (decomposed) syntactic architecture consisting of a causative head and a RESULT STATE constituent has been argued for, based on data concerning alleged sites of adverbial modification (Dowty 1979, von Stechow 1996; Beck 2005; Pyllkkänen 2008, among others). For instance, an influential claim advanced by proponents of syntactic decomposition is that restitutive readings arise from having *again* modify the RESULT STATE, a constituent below the VP (in brackets in (1) below). Hence, the fact that alternating causatives such as *open* show a restitutive reading is taken to support a syntactic decomposition analysis (see von Stechow 1996, Beck 2005).

(1) a. Thilo gave [Satoshi the map] again. (Beck & Johnson 2004, ex. (48))

b. John threw [Sandy the ball] again. (Beavers & Koontz-Garboden 2012, ex. (76))

However, I show that syntactic constituency is not a necessary condition for a restitutive reading. Semantically, a possession relation between a possessor and a possessed direct object suffices (in brackets). I supply systematic data where the possessor is the external argument:

- (2) a. [Mary] remembered [John's name] again.  
 b. [John] put on [the shirt] again (after the medical examination).  
 c. [The server] threw the ball in the air and caught [it] again.  
 d. I think I found God, but now [I]'ve lost [him] again.  
 e. John was born rich and lost his money. [He] earned [the money] again by gambling.

Having reviewed the slim evidence cited in favor of decompositional analysis (such as the “again” argument), I conclude that there is no positive evidence for syntactic decomposition theories and that they do not perform better from lexicalist ones.

3. A new generalization: syntactic operations cannot feed the unaccusative alternation. In table (1) next page I survey several constructions; each transitive contains a causative external argument and a RESULT STATE constituent, which was generated compositionally. Yet, none of them shows a corresponding alternate. If these causatives have the same syntactic structure that is postulated for alternating verbs in syntactic decomposition theories, the fact that the unaccusatives alternates are ungrammatical is unexpected. Lexicalist approaches, by contrast, are consistent with the data since the verbs in table (1) do not alternate in the absence of the compositional operations (e.g. the waves pounded the wood /\*the wood pounded).

**Table (1) Compositional causatives and the lack of alternation:**

The clock ticked the baby awake (unergative+secondary predication) The phone rang me out of my slumber	*the baby ticked awake *I rang out of my slumber
The storm swept the beach clean (transitive+ secondary predication) The waves pounded the old wood smooth	*the beach swept clean *the old wood pounded smooth
The sea ate the beach away (transitive+ directional particle) The wind carved the beach away	*the beach ate away *the beach carved away
<i>Il mare si è mangiato la spiaggia.</i> the sea si is eaten the beach <i>L'inflazione si è (ri)succhiata i risparmi.</i> the inflation si is sucked the savings	* <i>la spiaggia si è mangiata</i> the beach si is eaten. * <i>i risparmi si sono (ri)succhiati</i> the savings si is sucked.

## References

- Alexiadou, Artemis, Elena Anagnostopoulou & F. Schäfer. 2006. The properties of anticausatives crosslinguistically. *Phases of Interpretation*, vol 91, 187–212. Mouton de Gruyter.  
 Beavers, John & Andrew Koontz-Garboden. 2012. Manner and Result in the Roots of Verbal Meaning. *Linguistic Inquiry* 43(3). 331–369.

- Beck, Sigrid. 2005. There and back again: A semantic analysis. *Journal of semantics* 22(1). Oxford Univ Press.
- Beck, Sigrid; Johnson, Kyle. 2004. Double Objects Again. 35(1). 97-123.
- Fillmore, Charles. 1970. The Grammar of Hitting and Breaking. *Readings in English Transformational Grammar*.
- Folli, Raffaella & Heidi Harley. 2005. Consuming results in Italian and English: Flavors of v. Aspectual inquiries. 95-120.
- Goldberg, Adele E. 1995. *Constructions: A construction grammar approach to argument structure*. University of Chicago Press.
- Harley, Heidi. 2008. On the causative construction. In Shigeru Miyagawa & Mamoru Saitō (eds.), *The Oxford handbook of Japanese linguistics*. Oxford University Press, USA.
- Horvath, Julia & Tal Siloni. 2011. Causatives across components. *Natural Language & Linguistic Theory* 29. 657-704.
- Koontz-Garboden, Andrew. 2009. Anticausativization. *Natural Language & Linguistic Theory* 27 77-138
- Levin, Beth & Malka Rappaport-Hovav. 1995. *Unaccusativity: at the syntax-lexical semantics interface*. Cambridge, Mass: MIT Press.
- Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, Mass: MIT Press.
- Ramchand, Gillian. 2008. *Verb meaning and the lexicon: a first-phase syntax*. Cambridge, UK: Cambridge University Press., Contributor biographical information
- Stechow, Armin von. 1996. The different readings of wieder "again": A structural account. *Journal of Semantics* 13(2). Oxford Univ Press. 87-138.

## Anabela Rato

University of Minho, Portugal  
 asrato@gmail.com

### Perception and Production of English vowels by Portuguese Learners: The Effects of Perceptual Training

The present study investigated the effects of perceptual training on the learning of three English contrasts (/i/-/i:/; /ɛ/-/æ/; /u/-/ʊ/) by a group of 34 EFL (English as a Foreign Language) learners. This set of vowel contrasts was selected due to reported difficulties European Portuguese native speakers have in perceiving and producing them (Flege 1995; Rato et al. 2012). The English phonological categories /i/, /æ/ and /ʊ/ tend to be assimilated to the Portuguese vowel sounds /i/, /ɛ/ and /u/, respectively, and no distinction between the two vowels of each pair is made, due to their acoustic and articulatory proximity. Specifically, this study investigated (i) whether a high variability perceptual training, which included stimuli with different phonemic contexts produced by multiple native talkers, had a positive effect on the

perception of the English target segments; (ii) if transfer of improvement to oral production was observed; (iii) whether perceptual learning would generalize to identification of new words produced by novel talkers; and (iv) if long-term training effects would remain. The participants' perception was assessed three times with an identification test designed with natural stimuli: (1) before the auditory training – *pretest*; (2) immediately after the training was over – *posttest*; and (3) two months later – *delayed posttest*. The perceptual training program consisted of five sessions divided into two blocks, which included discrimination tasks and identification sequences followed by immediate feedback. Production was tested simultaneously in the three phases by means of a sentence-reading task with the target vowel segments. The results show that the Portuguese learners' performance in the identification of the English vowels improved significantly, and perceptual gains were retained two months after completion of the training sessions. Moreover, the results of the generalization test indicate that there was robust learning of the two front vowel pairs. Acoustic analyses of spoken data revealed that phonological learning transferred to production. In sum, these results support the claim that perceptual learning can occur in a formal non-naturalistic environment within a short period of time and corroborate previous findings on the malleability of L2/FL adult learners' perceptual systems.

### References

- Fllege, James E. "Second Language Speech Learning: Theory, Findings and Problems". In *Speech Perception and Linguistic Experience: Issues in Cross Language Research*, edited by W. Strange, 233-277. Timonium, MD: York Press, 1995.
- Rato, A., Rauber, A., Soares, L., & Lucas, L. "Challenges in the perception and production of English front vowels by native speakers of European Portuguese." Paper presented at the Workshop on Crosslinguistic Influence in Non-Native Language Acquisition, Universidade Nova de Lisboa, Portugal, June 29-30, 2012.

### Edina Robin

ELTE - Eötvös Loránd University Budapest, Hungary  
robin.edina@gmail.com

### Explicitation and Implication in Revised Translations

Explicitation has enjoyed considerable attention within descriptive translation research in the quest for identifying possible universals of translation. The results held up by empirical studies have indeed provided support for explicitation as an inherent feature of translated texts (Laviosa 2009). However, researches testing Blum-

Kulka's (1986) famous initial explicitation hypothesis do not normally take into account that their examined corpora most of the time contain revised translations. These texts are not simply results of the translator's transfer operations, but were affected by the revisor's modifications as well. Therefore, the question arises whether the explicating operations and the resulting shifts attributed to the translator are universal features of translations only, or may belong to the editorial process. It is yet to be discovered how much revision actually affects the make-up of the translated text.

The main aim of the present study was to form hypotheses which can serve as a basis for further research on the relation of draft and revised translations, transfer and editorial operations. Particular emphasis was put on the examination of explicating – and implicating – shifts, as a universal phenomenon of translation. During the empirical analysis draft Hungarian translations of ten contemporary English language novels were compared to their revised Hungarian versions – mainly on the basis of Klaudy's (2003) categorization of transfer operations – to determine whether revisors use explicating and implicating modifications while working on translated texts. The result of the study seem to ascertain that editors do perform explicitation and implicitation, which points to the conclusion that the phenomenon so far considered as a translation-specific universal may be part of the editorial process present in translation and revision as well.

### References

- Blum-Kulka, Shoshana. 1986. "Shifts of Cohesion and Coherence in Translation." In *Interlingual and Intercultural Communication. Discourse and Cognition in Translation and Second Language Acquisition*, edited by Juliana House and Shoshana Blum-Kulka, 17–35. Tübingen: Narr.
- Klaudy, Kinga. 2003. *Languages in Translation*. Budapest: Scholastica.
- Laviosa, Sara. 2009. "Universals." In *Encyclopedia of Translation Studies*, edited by Mona Baker, 306–311. London: Routledge.

**Patrícia Rodrigues and Maria José Foltran**

UFPR, Brazil

rodriguespatriciaa@gmail.com / mariajose.foltran@gmail.com

### Small Nominals in Brazilian Portuguese Copular Constructions

This work deals with the interpretation of bare nominals in Brazilian Portuguese (BrP) copular constructions of the kind shown in (1).

- (1) a. Mulher é complicado.  
 woman<sub>FEM/SING</sub> is complicated<sub>MASC/SING</sub>  
 'Situations involving women are complicated.'
- b. Crianças é divertido.  
 children<sub>FEM/PL</sub> is fun<sub>MASC/SING</sub>  
 'Situations involving children are fun'

The predicates in (1) exhibit an unmarked form for gender and number (masculine singular default form) despite of the feminine and/or plural forms of the bare nouns in subject positions. These sentences contrast with typical copular sentences in standard BrP, in which the predicate agrees in gender and in number with the subject, as shown in (2). Furthermore, the sentences in (1) and in (2) also contrast in their readings: in (1), the predicate is understood to apply to situations or eventualities involving the entity denoted by the subject, while in (2), the predicate applies to the entity denoted by the subject.

- (2) a. Mulher é complicada.  
 woman<sub>FEM/SING</sub> is complicated<sub>FEM/SING</sub>  
 'Women are complicated'
- b. Crianças são divertidas.  
 children<sub>FEM/PL</sub> are fun<sub>FEM/PL</sub>  
 'Children are fun'

Bare singulars have received different treatments in BrP: (i) the kind approach (e.g. Schmitt and Munn 2002), where the nominal is analyzed as the name of a kind and a projection of DP with null determiner, and (ii) the indefinite approach (e.g. Müller 2002), where the noun is treated as a predicate whose variable is linked by a generic operator and the nominal is a projection of NP. Both approaches predict that sentences with a bare singular subject will have a generic reading which involves individuals. However, the predicate in (1a) does not apply to individuals. Hence, we argue that although these analyses can be applied to (2a), they are inadequate to explain (1a). Regarding the bare plurals, they are also seen as kinds or as generic indefinites. Since the reading of (1b) is also a situation reading, it cannot be explained by these analyses either.

In the present work, in line with Pereltsveig (2006)'s study on what she terms Small Nominals in Russian, we claim that the nominal subjects in (1) have the behavior of Small Nominals, that is: (i) they are not projected as full DPs – the bare singular in (1a) is a NP and the bare plural in (1b) is a NumP; (ii) because they lack some or all functional projections, they also lack (valued) index features (the set of features tied to referential properties, valued on D); (iii) the lack of index features implies that nominals lack individual reference and that they do not trigger agreement on the predicate; (iv) they are in argument positions, but they are not interpreted as type <e>: they denote either properties, as in the case of the NP in (1a), or sums with *n* atoms, as in the case of NumP in (1b).

This analysis allows us to explain why the nominal subjects in (1) do not pattern with the nominal subjects in (2) with respect to a number of phenomena involving agreement and referentiality. For instance, we will show that the subject in

(1a), differently from the subject in (2a), cannot act as an antecedent in anaphoric binding. We will also argue that the NP/NumP predicate status of the nominal subjects in (1) is the source of the situation reading obtained. This way, showing that bare nouns in BrP can have different interpretations depending on the predicates they are combined with, this work aims to contribute to the debate about the presence/absence of the category D in nominals across languages.

### References

- Müller, Ana. 2002. "The semantics of generic quantification in Brazilian Portuguese". *Probus* 14: 279-298.
- Pereltsvaig, Asya. 2006. "Small Nominals". *Natural Language and Linguistic Theory* 24: 433-500.
- Schmitt, Cristina, and Allan Munn. 2002. "The syntax and semantics of bare arguments in Brazilian Portuguese". *Linguistic Variation Yearbook* 2: 253-281.

## Alexandr Rosen

Charles University, Prague, Czech Republic  
alexandr.rosen@ff.cuni.cz

### A 3D taxonomy of word classes at work

The standard sets of 8–10 word classes (henceforth POS) are defined by a mix of morphological, syntactic and semantic criteria. For some POS the three criteria yield the same result, but POS such as numerals and pronouns are only described in semantic terms and end up as a heterogeneous class: cardinal numerals and personal pronouns behave in some respects like nouns, while ordinal numerals and possessive pronouns behave like adjectives. Thus some of the standard POS break down into subclasses, which are similar across different POS. Moreover, in a morphologically rich language such as Czech the subclasses correlate with identical sets of morphological categories. E.g., in (1) the possessive pronoun *jejího* 'her' has two sets of morphological categories: (i) person, number and gender, agreeing with its antecedent *Jana* 'Jane' and (ii) number, gender, case, agreeing with the modified noun *syna* 'son'. This correlates with the morphological categories appropriate to adjectives as a morphological class and referential categories appropriate to personal pronouns as a semantic class. In (2) the relative possessive pronoun *jejíhož* 'whose' refers to 3rd person feminine singular but agrees with a noun in masculine singular while the form shows both. Similar behavior show deverbatives and numerals: categories such as aspect, polarity and cardinality co-occur with their semantic class

(verb and numeral, respectively), while agreement-related categories of person, number, case and gender co-occur with their morphological class (adjective or noun).

A cross-classification of POS has been proposed and discussed before (e.g. by Brøndal, 1928; Komárek, 1999) and used in some Czech descriptive grammars (Trávníček, 1951), including textbooks (Čechová et al., 2011). However, despite its theoretical appeal the proposal has not found its way into linguistic practice. The goal of this contribution is to help to remedy the situation by providing support for a 3D taxonomy of word classes from the practical domains of corpus and applied linguistics. Annotation of corpora, including treebanks, by a cross-classifying POS tagset facilitates both corpus queries and their use by application tools, especially when phenomena such as syntactic constituency, agreement or pronominal reference are involved. Disparate morphosyntactic annotation of multilingual corpora can be harmonized when the concepts behind language- or theory-specific tagsets are properly located in the 3D space of word classes (Rosen, 2010). Finally, a cross-classification of POS can be applied as a powerful tool for the analysis of non-standard language use in texts produced by non-native speakers (Díaz-Negrillo et al., 2010).

The presentation will show some highlights and problematic points of the 3D taxonomy, together with its formal definition, appropriate morphological categories and mapping to existing tagsets and linguistic ontologies (such as OLiA, see, e.g., Chiarcos, 2012). Finally, examples of its use in the analysis of learner language and annotation of multilingual corpora will be provided.

- (1) Jana přišla ale jejího syna jsem neviděl.  
 Jana<sub>FEM,3RD,NOM,SG</sub> came but her<sub>FEM,3RD,SG</sub> <sup>MASC,ACC,SG</sup>son<sub>MASC,ACC,SG</sub> aux saw<sub>NEG</sub>  
 ‘Jane has arrived, but I haven’t seen her son.’
- (2) Paní, jejíhož psa nepustili do vlaku, je moc smutná  
 lady whose dog let in<sub>NEG</sub> into train is very sad  
 ‘The lady whose dog wasn’t allowed on the train is very sad.’

## References

- Brøndal, V. 1928. *Ordklasserne. Partes Orationis*. København: G. E. C. Gad.
- Díaz-Negrillo, A., Meurers, D., Valera, S., and Wunsch, H. 2010. “Towards interlanguage POS annotation for effective learner corpora in SLA and FLT.” *Language Forum*, 36 (1– 2): 139–154. *Special Issue on Corpus Linguistics for Teaching and Learning. In Honour of John Sinclair*.
- Čechová, M., Dokulil, M., Hlavsa, Z., Hrbáček, J., and Hrušková, Z. 2011. *Ceština – řeč a jazyk*. Praha: SPN, 3rd edition.



- Komárek, M. 1999. "Autosemantic Parts of Speech in Czech." In *Travaux du Cercle linguistique de Prague*, volume 3, 195–210.
- Rosen, A. 2010. "Mediating between incompatible tagsets." In Ahrenberg, L., Tiedemann, J., and Volk, M., editors, *Proceedings of the Workshop on Annotation and Exploitation of Parallel Corpora (AEPC)*, volume 10 of *NEALT Proceedings Series*, 53–62, Tartu, Estonia: Northern European Association for Language Technology.
- Trávníček, F. 1951. *Mluvnice spisovné češtiny*. Praha: Slovanské nakladatelství.

**Pawel Rutkowski, Małgorzata Czajkowska-Kisil, Joanna Łacheta,  
and Anna Kuder**

University of Warsaw, Poland

p.rutkowski@uw.edu.pl, ania.kuder@gmail.com

### **The Syntax of Adjectival Modification in Polish Sign Language (PJM)**

Although the body of literature on the syntax of sign languages is growing rapidly, relatively little attention has so far been paid to the issue of word order within the nominal domain.

Most of the few studies that do attempt to analyze the relative ordering of the head noun and its modifiers adhere to the generative approach to phrase structure (see, e.g., Bertone (2010), Neidle and Nash (2012)). A key premise of this approach is that the internal structure of the nominal domain is hierarchical, with different kinds of modifiers occupying multiple functional layers projected above the NP. In other words, the existing accounts of the syntax of sign language adnominal modification are all based on Cinque's model of the syntax of adjectives (cf. Cinque (1994)).

The goal of the present paper is to test the applicability of the Cinquean model to the nominal syntax of Polish Sign Language (*polski język migowy*, hereinafter PJM). We analyze PJM nominal expressions in terms of the word-order patterns they exhibit and attempt to present a plausible model of the structural skeleton of PJM nominals, taking into account various modifiers that may accompany the head noun. We pay special attention to adjectives. By doing this, we verify the account involving multiple functional phrases located in the region between the NP and DP layers.

A key premise of the present proposal and also its novelty is that we base our theoretical model on a detailed empirical investigation of extensive corpus data. For the purposes of the present study, we have analyzed the syntactic properties of all nominal expressions in a subsection of the PJM corpus project (an on-going endeavor aimed at gathering a collection of video data consisting of elicited and

spontaneous sign language utterances, produced by signers who either have deaf parents or have used PJM since early school age). An in-depth examination of the data has allowed us to produce a comprehensive typology of PJM nominal constructions involving adjectives and other adnominal modifiers. The details thereof will be discussed in the present talk.

### References

- Bertone, Carmela (2010), "The Syntax of Noun Modification in Italian Sign language (LIS)", in: Working Papers in Linguistics 2009, Venezia: Dipartimento di Scienze del Linguaggio, Università Ca' Foscari, pp. 7-28.
- Cinque, Guglielmo (1994), "On the Evidence for Partial N-Movement in the Romance DP", in: Guglielmo Cinque, Jan Koster, Jean-Yves Pollock, Luigi Rizzi and Raffaella Zanuttini (eds.), Paths Towards Universal Grammar: Studies in Honor of Richard S. Kayne, Washington: Georgetown University Press, pp. 85-110.
- Neidle, Carol and Joan Nash (2012), "The noun phrase", in: Roland Pfau, Markus Steinbach and Bencie Woll (eds.), Sign Language: An International Handbook (Handbücher zur Sprach- und Kommunikationswissenschaft / Handbooks of Linguistics and Communication Science: 37), Berlin: De Gruyter Mouton, pp. 265-292.

## Anja Šarić

Utrecht University, Netherlands  
 anja.saric@yahoo.com

### P-stranding in a non-P-stranding language: The Structure of Sluices in Serbo-Croatian

Serbo-Croatian (SC) does not allow P-stranding under regular wh-movement (1), yet it optionally allows it in some instances of sluicing (2). I show instances of sluicing that P-stranding can occur in, and I propose a syntactic analysis that accounts for such behavior.

- (1) a. Sa kim je Ana govorila?      b. \*Kim je govorila Ana sa?  
 with whom<sub>INST</sub> is Ana spoken      whom<sub>INST</sub> is spoken Ana with  
 'Who did Ana speak with?'  
 (Merchant, 2001)

- (2) Ana je pričala o nekom drugu, ali ne znam (o) kojem (drugu).  
 Ana is spoken about some friend<sub>LOC</sub> but not I.know about which<sub>LOC</sub> friend<sub>LOC</sub>  
 'Ana spoke about a friend, but I don't know which.'

Without contradicting Merchant's (2001) generalization in (3), Stjepanović (2008) proposes that P-loss in SC is a postsyntactic phenomenon happening at PF.

- (3) *Form-identity generalization II: Preposition-Stranding* (Merchant, 2001: 92):

A language L will allow preposition stranding under sluicing iff L allows preposition stranding under regular wh-movement.

However, Stjepanović does not address the question of how exactly this loss of Ps occurs, nor the distinct behavior of different wh-remnants in terms of the (non)optionality of P-drop.

In SC, complex D(iscourse)-linked wh-phrases (4a) seem to allow P-drop as opposed to their simple non-D-linked counterparts (4b). According to my knowledge, this distinction has not been addressed before for SC, and the existing approaches do not account for it.

- (4) a. Mia se igra sa nekom drugaricom, ali ne znam (sa) kojom  
(drugaricom).  
Mia<sub>REFL</sub> play with some friend<sub>INST</sub> but not I .know with which<sub>INST</sub>  
friend<sub>INST</sub>  
'Mia is playing with a friend, but I don't know which.'
- b. Mia se igra sa nekim, ali ne znam \*(sa) kim.  
Mia<sub>REFL</sub> play with someone<sub>INST</sub> but not I.know with wh<sub>INST</sub>  
'Mia is playing with someone, but I don't know who.'

Adopting Rizzi's (1987) split CP hypothesis, Van Craenenbroeck (2012) argues that complex and simple wh-phrases go through a different path in order to reach the left periphery. Complex wh-phrases are base-generated in SpecCP<sub>1</sub> (topmost layer) since they are not syntactic operators. Simple wh-phrases are syntactic operators, and they move from their TP internal base positions to SpecCP<sub>1</sub>. The distinction between simple and complex wh-phrases is based on: (i) presence of a nominal restriction (e.g. *which friend*) and (ii) set denotation (complex wh-phrase denotes a set and can be interpreted *in situ*). Comparing that to the concept of D-linking (Pesetsky, 1987) the parallelism between simple/complex and non-D-linked/D-linked phrases follows naturally. As D-linked (complex) wh-phrases do not move from within the TP, but are base-generated in the left periphery, the notion of P-stranding does not have to be employed. A D-linked wh-phrase can either be merged bare, or as a PP. Conversely, non-D-linked (simple) wh-phrases undergo wh-movement from their TP internal positions. Just as under regular wh-movement, they cannot strand Ps under sluicing either. Hence, simple wh-remnants in sluices have to appear with Ps. The proposed analysis thus accounts for the SC data without contradicting the generalization in (3).

## References

- Craenenbroeck van, Jeroen. 2012. "How do you sluice when there is more than one CP?." *Sluicing: Cross-linguistic perspectives* 38, 40.
- Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford University Press.

- Pesetsky, David. 1987. "Wh-in-situ: Movement and unselective binding." *The representation of (in) definiteness* 98: 98-129.
- Rizzi, Luigi. 1997. "The fine structure of the left periphery. Elements of grammar: Handbook of generative syntax, ed. by Liliane Haegeman, 281-337."
- Stjepanović, Sandra. 2008. "P-stranding under sluicing in a non-P-stranding language?." *Linguistic Inquiry* 39, no. 1: 179-190.

## Uli Sauerland

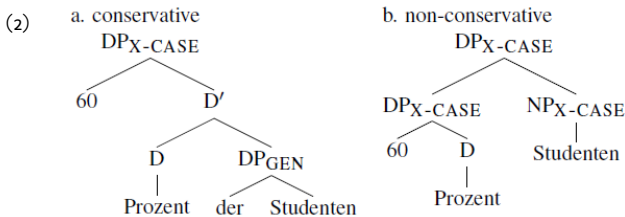
ZAS, Berlin, Germany  
 uli@alum.mit.edu

### Non-Conservative Quantifiers in German

In this talk, we discuss apparent non-conservative determiner quantification in German. In German, most speakers accept non-conservative uses of proportional quantifiers such as percentages and fractions with DPs in any argument position like a subject in (1) (a few Southern speakers don't accept (1)). Also expressions that have a more adverbial nature like *größtenteils* ('for the most part') can occur as non-conservative quantifiers, but other adverbs like *oft* ('often') and *meistens* ('mostly') cannot.

- (1) 20% / Zwei Drittel / Größtenteils / \*Oft / ?\*Meistens Frauen haben sich beworben.  
 20% / two thirds / for the most part / often / mostly women have self applied.  
 '20% / Two thirds / Most of the applicants were women.'

Such facts haven't been observed in previous discussions of German quantification such as (Kobele & Zimmermann 2012), so we first establish a detailed description of the facts. For conservative, pseudo-partitives we adopt the idea that measure heads are deficient nouns projecting the structure in (2a). We argue that non-conservative quantifiers are full DPs that the associated NP adjoins to, and that a process of LF adverb movement applies to these structures. In (2b), the externally assigned case is shared by DP and NP. At LF then, the conservativity of determiner quantifiers holds in German, despite contrary surface appearance.



**Constituency** As examples (1) shows, the non-conservative quantification structures allow determiner and noun to occur pre-verbally. Since German is a verb-second language, this word order indicates that determiner and noun form a constituent (e.g. (Müller 2005)). Three further arguments support this constituency: (3) shows that the non-conservative quantifier cannot be followed by a full DP or pronoun. Furthermore, the non-conservative quantifiers of (1) (unlike adverbial *größtenteils*) cannot occur in an unambiguously adverbial position as in (4). Finally, left dislocation is possible with non-conservative quantifiers in (5).

(3)\*Zwanzig Prozent (diese Studenten / sie) sind angenommen worden.  
 twenty percent (these students / they) were accepted become

(4)\*Thomas hat 66% / zwei Drittel geschlafen.  
 Thomas has 66%/two thirds slept

(5) 66% / Zwei Drittel Studenten, die sind nur 2006 angenommen worden  
 66% / two thirds student they were only 2006 accepted become

**Focus Affectedness** In example (1), the noun following the non-conservative quantifier must be focussed. Example (6) shows that the placement of focus with the noun phrase affects interpretation.

(6) Zwanzig Prozent DEUTSCHE Studenten sind angenommen worden.  
 twenty percent German<sub>F</sub> students be accepted become  
 'Twenty percent of the accepted students were German.'

Analysis We propose that non-conservative quantification arises from a different structure of the determiner within DP as shown in (2) above. On the semantic side, we assume that the non-conservative structure requires LF-movement of the D-head. Since the  $\varnothing$ -head is of type  $ee$ , the quantifier cannot combine with the  $\varphi$ P conservatively in the non-conservative structure (1b). We assume that the D-head must move to a position with propositional scope, taking only a focus determined contextual restrictor (Herburger 2000).

(7)  $Q_{c \sim c} \lambda x [\text{students}_c(x) \wedge \text{were-accepted}(x)]$

## Uli Sauerland and Kazuko Yatsushiro

Zentrum für Allgemeine Sprachwissenschaft (ZAS), Berlin, Germany  
 uli@alum.mit.edu; kazukoyatsushiro@gmail.com

### On the Typology of Reported Speech: Partial Quotation vs. Transparent Shifters

Several linguists have noted that Japanese reported speech doesn't line up neatly into the division between direct and indirect speech established for Western

European languages (Coulmas, 1985; Kuno, 1988; Hirose, 1995; Oshima, 2006). Related observations have been made in a number of other languages, e.g. ASL (Lillo-Martin, 1995), Amharic (Schlenker, 2003), Slave, Zazaki (Anand, 2006), Matses (Munro et al., 2012), and Uyghur (Shklovsky and Sudo, 2009). For Japanese, Maier (2009, 2014) recently proposes that partial quotation is freely allowed. We argue that Maier’s proposal makes wrong predictions for Japanese, and also show that Maier’s proposal doesn’t provide a good starting point for the typology of speech reports. We propose instead a new approach: i) speech reports are generally embedded under indexical shift operators, ii) Western European direct speech is subject to a strict literality requirement.

Partial Quotation Account Maier’s partial quotation account assumes that in Japanese parts of a speech report can be quoted, while other parts are not. For example, (1) could be uttered in a situation where the boss actually said yesterday “Finish this work in the next two days.”

- (1) *asita made-ni sono sigoto-o [yare] to joosi-ni iwaremasita*  
 tomorrow until-LOC that work-ACC COMP do-IMP boss-LOC was told-POLITE  
 ‘I was told by the boss that I should finish that work by tomorrow.’ (Kuno, 1988)

Maier proposes that while *asita* and *sono* in (1) are indirect speech, i.e. interpreted from the speakers perspective, the imperative *yare* is a quotation (indicated by brackets).

However, free availability of partial quotation predicts that there should be no constraints on indexical perspective in Japanese. This isn’t the case: For example (1) isn’t acceptable in the following scenario: the boss said two days ago “Finish this work by tomorrow”. But partial quotation as in (2) would predict (1) to be acceptable.

- (2) [*asita made-ni*] *sono [sigoto-o] xyarey to joosi-ni iwaremasita*

Indexicals obligatorily shift together in many other languages too (Anand and Nevins, 2004). All such cases are problematic for the partial quotation account. Furthermore, the partial quotation account offers no insightful way to account for obligatory indexical shift in Matses, where all indexical shift, but extraction is freely allowed according to Munro et al. (2012). Partial quotation would have to obligatorily apply to all words in an embedded clause as indicated in (3).

- (3) *Mida [padkid] [senad] [kues-o-mbi] ke-o-sh*  
 Which type deer kill-PAST-1A say-PAST-3  
 ‘Which type of deer did he say he killed?’

In sum, partial quotation is too powerful a mechanism and it is unclear how it could be constrained. Transparent Shifters Anand and Nevins (2004); Munro et al. (2012) already propose that languages are parametrized for a specific inventory of indexical shifters. For example,  $S_{all}$  shifts all context components,  $S_0$  shifts none,  $S_{1,2}$  shifts only the speaker and hearer components, and  $S_{1,2pt}$  shifting all but the world

component. We suggest that even English direct speech should be analyzed as a shifter, with a separate account for the literality condition below. So English selects  $S_{\text{direct}}$  and  $S_{\text{indirect}}$ , while Matses selects  $S_{\text{direct}}$  and  $S_{12\text{pt}}$ . For Japanese, the inventory of shifters includes at least three:  $S_{\text{direct}}$ ,  $S_{\text{indirect}}$ , and  $S_{12}$ .

(4)  $S_{12}$  [sita made-ni sono sigoto-o yare to joosi-ni] iwaremasita

In English, direct speech is furthermore required to literally repeat an original utterance such that (5) is odd. We propose that this is a separate condition attached to  $S_{\text{all}}$  in English (and other European languages).

(5) John: "I will visit you tomorrow."

#John said "I am going to come tomorrow."

The literality requirement blocks extraction because an original utterance couldn't contain a gap. However, Hollebrandse (2007) shows that English children at age 5–6 years allow extraction from direct quotes as do Matses and Japanese speakers. Our approach predicts this divergence in acquisition.

## References

- Anand, P., 2006. De de se. Ph.D. thesis, Massachusetts Institute of Technology, Cambridge, Mass.
- Anand, P., Nevins, A., 2004. Shifty operators in changing contexts. Unpublished Ms., MIT.
- Coulmas, F., 1985. Direct and indirect speech: general problems and problems of Japanese. *Journal of Pragmatics* 9, 41–63.
- Hirose, Y., 1995. Direct and indirect speech as quotations of public and private expression. *Lingua* 95, 223–238.
- Hollebrandse, B., 2007. A special case of wh-extraction in child language. *Lingua* 117.
- Kuno, S., 1988. Blended quasi-direct discourse in Japanese. In: *Papers from the Second International Workshop on Japanese Syntax*.
- Lillo-Martin, D., 1995. The point of view predicate in American Sign Language. In: Emmorey, K. (Ed.), *Language, Gesture and Space*. Lawrence Erlbaum, pp. 155–170.
- Maier, E., 2009. Japanese reported speech: Against a direct–indirect distinction. In: Hattori, H., Kawamura, T., Ide, T., Yokoo, M., Murakami, Y. (Eds.), *New Frontiers in Artificial Intelligence*, vol. 5447 of *Lecture Notes in Computer Science*. Springer Berlin / Heidelberg, pp. 133–145. URL <http://dx.doi.org/10.1007/978-3-642-00609-813>, 10.1007/978-3-642-00609-813.
- Maier, E., 2014. Japanese reported speech: Towards an account of perspective shift as mixed quotation. In: McCreedy, E., Yabushita, K., Yoshimoto, K. (Eds.), *Formal Approaches to Semantics and Pragmatics: Japanese and Beyond*. Springer.
- Munro, R., Ludwig, R., Sauerland, U., Fleck, D., 2012. Reported speech in matses: Perspective persistence and evidential narratives. *International Journal of American Linguistics* 78, 41–75.
- Oshima, D. Y., 2006. Perspectives in reported discourse. Ph.D. thesis, Stanford University, Stanford, Calif.
- Schlenker, P., 2003. A plea for monsters. *Linguistics and Philosophy* 26, 29–120.
- Shklovsky, K., Sudo, Y., 2009. Indexical shifting in Uyghur. Handout from NELS 40.

## Louise Shepperd

University of Edinburgh, Great Britain  
lhshepperd@gmail.com

### **Influence of Orthographic Input on Phonological Representations of Nonnative Nonassimilable Contrasts: Adult Native English Speakers' Acquisition of Zulu Clicks**

Unlike first language (L1) acquisition, adult second language (L2) learners are exposed to orthographic input (OI) from the earliest stages of development. A growing body of research has begun to investigate how this type of input influences L2 phonological development. Studies focusing on the difficulties surrounding L2 contrasts that can be assimilated to existing L1 categories report that OI promotes clarity of lexical representation and enhances memory of novel forms (Erdener and Burnham 2005; Escudero, Hayes-Harb and Mitterer 2008). Meanwhile, research investigating the influence of inconsistent grapheme-phoneme correspondences claim OI can lead to misperception, phonological misrepresentation and non-target production (Bassetti 2007; Hayes-Harb, Nicol and Barker 2010; Rafat 2013). To examine the effect of OI on early L2 phonological representation, aside from factors related to orthographic inconsistency and perceptual difficulties surrounding assimilable contrasts, the present study investigated the acquisition of nonassimilable contrasts, which are consistently represented in the orthography. The chosen contrasts were a selection of Zulu click consonants, which differed by either place of articulation (/g!/-/g!/) or voicing (/!/-/g!/), and were represented using the Roman Alphabet. According to previous research (Best, McRoberts and Sithole 1988), these particular Zulu contrasts were found to be perceptually discriminable for native-speakers of English.

Adult native-speakers of English (N=28) with no previous exposure to Zulu were trained to learn 24 bisyllabic Zulu words with a combination of auditory and orthographic input. The experimental items belonged to one of four groups of minimal pairs, where two groups differed by native contrasts and two differed by nonnative click contrasts. A short AXB discrimination task was conducted with all participants to confirm the differences between minimally paired phonemes were perceptually salient. Immediately after completion of the AXB task, participants began the learning phase where each Zulu word was auditorily presented simultaneously with a picture depicting the matching pseudo-meaning. For each participant, orthographic input was presented below the picture alongside auditory input for one group of items differing by a native contrast and one group differing by a nonnative contrast. After reaching a learning criterion, an audio-picture matching



task was conducted. This took place directly after training and then repeated two days later in a delayed posttest. This task involved making a ‘yes’ or ‘no’ response as to whether an auditorily presented word matched the picture.

Results revealed no significant difference in performance when identifying nonassimilable nonnative contrasts in the immediate posttest when OI was presented during acquisition. However, performance was marginally better in the delayed posttest with OI. Participant responses during testing and in posttest interviews suggested presentation of orthographic forms biased participants towards L1-based phonemic categorisation (e.g. <g> - /g/), even when L1 and L2 phonemes are perceptually distant. So, while findings suggested OI may support the establishment of novel forms in memory, it appears OI does not lead to more accurate L2 lexical representations. Thus, these findings support arguments against an over-reliance on OI during the earliest stages of L2 phonological development.

### References

- Bassetti, B. 2007. “Effects of hanyu pinyin on pronunciation in learners of Chinese as a foreign language2. In *The Cognition, Learning and Teaching of Chinese Characters*, edited by Guder, A., Jiang, X. & Wan, Y. China: Beijing Language and Culture University Press.
- Best, C., McRoberts, G. & Sithole, N. 1988. “Examination of perceptual reorganisation for non-native speech contrasts: Zulu click discrimination by English-speaking adults and infants.” *Journal of Experimental Psychology* 14(3): 345-360.
- Erdener, V., & Burnham, D. 2005. “The role of audiovisual speech and orthographic information in nonnative speech production”. *Language Learning*, 55(2), 191-228.
- Escudero, P., Hayes-Harb, R. & Mitterer, H. (2008), “Novel second-language words and asymmetric lexical access”. *Journal of Phonetics* 36: 345-360.
- Hayes-Harb, R., Nicol, J. & Barker, J. 2010. “Learning the phonological forms of new words: effects of orthographic and auditory input”. *Language and Speech* 53 (3), 367-381.
- Rafat, K. 2013. “Orthography-induced transfer in the production of English-speaking learners of Spanish”. *The Language Learning Journal*: 1-17.

Filip Smolík<sup>1</sup>, Adam Kříž<sup>2</sup>

<sup>1</sup>Institute of psychology AS CR, Prague, <sup>2</sup>Faculty of Arts, Charles University  
smolik@praha.psu.cas.cz, adamkriz@gmail.com

### The power of imageability: effects of semantic factors on the acquisition of inflections

Semantic properties of words, such as imageability or concreteness, affect their acquisition (Morrison, Chappell, & Ellis, 1997). However, semantic factors may also affect the acquisition of grammatical elements; it has been suggested that the

acquisition of grammatical morphemes is affected by semantic properties of the open-class units they combine with (e. g. Bloom, Merkin, & Wootten, 1982). At the same time, recent research showed that semantic properties of words, such as imageability, can facilitate the retrieval and recognition of inflected forms in adults (Prado, Ullman, 2009). There is thus both theoretical and empirical motivation for examining the effects of semantic factors on the acquisition of grammatical morphemes. Such effects have indeed been documented in one previous study (Smolik, in press). The semantic factor under investigation was imageability, which is known to affect children's acquisition of vocabulary (McDonough et al., 2011).

The present study examined the effects of imageability on the acquisition of inflected forms in Czech children from 1.5 to 3.5 years of age, using a parent report questionnaire. The forms examined were nominative plurals in nouns, and second-person singular present forms and past participles in verbs. Along with these forms, the use of unmarked forms - nominative singular nouns and third person singular present verbs - was assessed. Total of 317 parents were asked to mark whether their child used the forms of interest in a total of 105 words (62 nouns and 43 verbs). The analysis used mixed-effects logistic regression with crossed random effects for words and persons, and estimated the likelihood of reporting that the child used the inflected form. The predictors included in the model were the use of the uninflected form, the child's age, the frequency of the inflected form, and the imageability rating of the word. The analysis found significant facilitative effects of imageability for all three inflected forms. The magnitude of the effects was similar to the effect observed by Smolik (in press) in English nouns.

Overall, the study provides converging evidence that semantic factors are involved in the processing and acquisition of inflected forms. It could be objected that the present results might be due to the easier retrieval of the highly imageable inflected forms in parents, the finding is not isolated and fits well in the previous findings. It suggests that the topic of semantic effects on the acquisition of morphological processes should be examined further and more deeply. The paper proposes two possible mechanisms for explaining the effects. One, the highly imageable verbs might be easier in lexical processing, thus leaving more resources for processing and acquiring the inflected forms. The other possibility is that the highly imageable words are easier to retrieve and that this effect is present in inflected forms as well. Possible methods for distinguishing these two mechanisms will be discussed.

## References

Bloom, L., Merkin, S., & Wootten, J. (1982). Wh-questions: Linguistic factors that contribute to the sequence of acquisition. *Child Development*, 53, 1084-1092.

- McDonough, C., Song, L., Hirsh-Pasek, K., Golinkoff R. M., Lannon, R. (2011). An image is worth a thousand words: why nouns tend to dominate verbs in early word learning. *Developmental Science*; 14, 181-189.
- Morrison, C.M., Chappell, T.D., & Ellis, A.W. (1997). Age of acquisition norms for a large set of object names and their relation to adult estimates and other variables. *The Quarterly Journal of Experimental Psychology A: Human Experimental Psychology*, 50A, 528-559.
- Prado, E.L., M.T. Ullman. (2009). Can imageability help us draw the line between storage and composition? *Journal of Experimental Psychology: Learning, Memory and Cognition*, 110(1). 849-866.
- Smolík, F. (in press). Noun imageability facilitates the acquisition of plurals: survival analysis of plural emergence in children. *Journal of Psycholinguistic Research*. DOI: 10.1007/s10936-013-9255-5

## Betsy Sneller

University of Pennsylvania, USA  
esneller@sas.upenn.edu

### Using corpus data as evidence for phonotactic constraints on /th/-fronting

**Introduction** – Large-scale corpora of naturalistic speech afford the opportunity to investigate formal linguistic theories using real speech data. The current study aims to use a large corpus of natural speech recordings to examine phonotactic constraints on /th/-fronting across two major speech communities in Philadelphia.

**Background** – This study draws data from 62 speakers in the Philadelphia Neighborhood Corpus (PNC) to investigate phonotactic constraints on /th/-fronting. /th/-fronting, which is the substitution of [f] for [θ], is a feature of African American Vernacular English (AAVE) which has been described as occurring only in word-medial or word-final position (Fix 2010, Green 2002, Labov et al. 1968). Recent work in South Philadelphia has found non-AAVE speaking white speakers appropriating /th/-fronting in word-medial and word-final position as well (Sneller 2013).

**Data** – I expand on these initial observations of /th/-fronting by looking more closely at phonotactic constraints for 3527 tokens across two demographics in the PNC that exhibit /th/-fronting: AAVE-speaking Black speakers (22) and non-AAVE-speaking White speakers from South Philadelphia (40).

**Results** – I find that the reported word-position constraints on /th/-fronting in AAVE are borne out (Figure 1), with both groups fronting most in the word-final position and not at all in the word-initial position. When the *word-internal* position is broken down into *coda* and *non-coda*, however, we see different phonotactic constraints

arising (Figure 2). For the White speakers, /th/-fronting is only felicitous in coda position. For the Black speakers, /th/-fronting is possible in both coda and onset position, though it is highly disfavored in the onset position (3% of tokens in onset position are fronted, compared to 50% of coda position tokens). While the origin of /th/-fronting for these White speakers has been suggested to be borrowing from their Black neighbors (Sneller 2013), this difference in phonotactics suggests that AAVE /th/-fronting is of a slightly different nature than /th/-fronting from White speakers. We suggest that the simplification of /th/-fronting for White speakers to exclusively coda-position tokens constitutes an "off the shelf" (Milroy 2008) linguistic appropriation.

**Extensions** – /th/-fronting in other world dialects of English exhibit gradient rates of fronting, with word-medial and word-final tokens more likely to front than word-initial tokens (e.g. Holmes-Elliot 2013). The current study suggests that there may be a shared progression in phonotactic constraints on /th/-fronting, from coda-position to word-internal-onset to any-onset tokens, in /th/-fronting dialects of English worldwide.

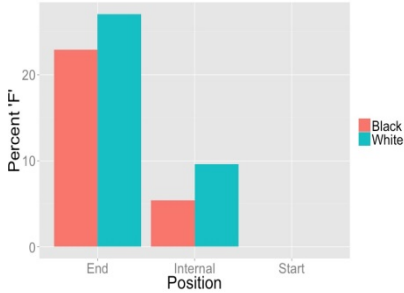


Figure 1: Percent /f/ tokens according to Word Position

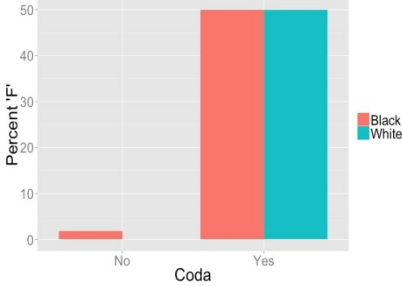


Figure 2: Percent /f/ tokens of "Word Internal" position, broken down by Coda

**References**

Fix, S. 2010. Representations of blackness by white women: Linguistic practice in the community versus the media. *University of Pennsylvania Working Papers in Linguistics* 16(2): 55-65.

Green, L. 2002. *African American English: A Linguistic Introduction*, Cambridge: Cambridge Unnivesrity Press.

Holmes-Elliot, S. 2013. *Blame the Parents! The transmission of endogenous versus exogenous change within a levelling variety*. Paper presented at UKLVC 9, Sheffield.

- Labov, W, P. Cohen, C. Robins, and J. Lewis. 1968. *A Study of the Nonstandard English of Negro and Puerto Rican Speakers in New York City*. Final Report, Cooperative Research Project No. 3288, United States Office of Education.
- Milroy, L. 2008. "Off the shelf or under the counter? On the social dynamics of sound changes", in Christopher Cain and Geoffrey Russom (eds), *Studies in English Historical Linguistics III*. Berlin: Mouton de Gruyter, pp. 149-72.
- Sneller, B. 2013. "*Efnic intimidation*": *Appropriation of /th/-fronting by white speakers in South Philadelphia*. Paper presented at NWA 42, Pittsburgh.
- Sweetland, J. 2002. Unexpected but authentic use of an ethnically-marked dialect. *Journal of Sociolinguistics* 6(4): 514-538.

## Helena Spilková

Norwegian University of Science and Technology, Trondheim, Norway  
 hspilkova@checknet.de

### Reduction of repeated mentions of content words in native and non-native English

Phonetic reduction includes a number of phenomena resulting from a decrease of articulatory effort, such as durational reduction, lenitions, segment deletions or spectral contrast reduction. The degree of phonetic reduction was shown to be influenced by various factors, including prosodic structure, predictability or presence of disfluencies. One of the traditionally investigated factors related to word predictability is the word's information status as new (first mention of the word) or given (repeated mention) within a discourse. Previous research showed that repeated mentions of words within a discourse are shorter, less intelligible when presented in isolation, and have lower  $F_0$  and more centralised vowel qualities compared to the words' first mentions (e.g. Fowler and Housum 1987, Koopmans-van Beinum and van Bergem 1989, Shields and Balota 1991, Baker and Bradlow 2009). However, most of the research on this topic focussed on native productions, while only a few studies inspected reduction tendencies in repeated mentions in non-native speech.

The present paper investigates the reduction of repeated mentions of English content words in the course of a dialogue, comparing productions of native and non-native (Czech and Norwegian) speakers. Apart from durational reduction, rhythmical and spectral aspects of repeated mention reduction are addressed. The research reported in this paper is based on a part of the author's doctoral dissertation (Spilková 2014).

The speech material used in this investigation consisted of spontaneous dialogues in native and non-native English, elicited using an interactional task. The selected lexical items were nouns, and the studied sample contained the speaker's first mention of a word and two later productions of the same word by the same speaker further in the dialogue (repeated mentions). The measures observed in the investigated words included (1) the word duration, (2) the ratio of the mean duration of the syllables without primary stress to the duration of the stressed syllable (in polysyllabic words) and (3) the "distance to the centroid" of the vowel in the stressed syllable, expressing the degree of centralisation of the vowel (cf. Koopmans-van Beinum and van Bergem 1989).

The results showed a consistent durational and spectral reduction of the repeated mentions of content words in native productions, as well as in the English spoken by Czech and Norwegian speakers. This finding, confirming the generality of the tendency to reduce more predictable words, is in line with the predictions of the well-known H&H theory (Lindblom 1990). On the other hand, a deviating pattern in the English productions of the Czech speaker group was revealed in the analysis of the rhythm-related measure. Here, noticeably higher unstressed-to-stressed syllable duration ratios were found in the Czech speakers' first mentions of content words. In contrast to that, this ratio did not change much between the first mention and repeated mentions in the productions of natives and Norwegian speakers of English. This peculiar rhythmical pattern of hyperarticulation of first mentions of polysyllabic words is likely due to substantial differences in the phonological properties related to rhythm type between Czech on one side, and English and Norwegian on the other.

## References

- Baker, Rachel E., and Ann R. Bradlow. 2009. "Variability in word duration as a function of probability, speech style, and prosody." *Language and Speech* 52 (4): 391-413.
- Fowler, Carol A., and Jonathan Housum. 1987. "Talkers' signaling of "new" and "old" words in speech and listeners' perception and use of the distinction." *Journal of Memory and Language* 26: 489-504.
- Koopmans-van Beinum, Florien J., and Dick R. van Bergem. 1989. "The role of 'given' and 'new' in the production and perception of vowel contrasts in read text and in spontaneous speech." In *Proceedings of the First European Conference on Speech Communication and Technology, Eurospeech '89*, 2113-2116.
- Lindblom, Björn. 1990. "Explaining phonetic variation: a sketch of the H&H theory." In *Speech Production and Speech Modelling*, edited by W. J. Hardcastle and A. Marchal, 403-439. Dordrecht: Kluwer Academic Publishers.
- Shields, Lynne W., and David A. Balota. 1991. "Repetition and associative context effects in speech production." *Language and Speech* 34 (1): 47-55.

## Branimir Stanković

University of Niš, Serbia

branimir.stankovic@filfak.ni.ac.rs

### A third type of adjective modification? An evidence for DP in Serbo-Croatian?

Cinque 2010 shows that adjectives are generated at two different syntactic positions below NumP – direct modification adjectives are merged as APs in specifiers of functional heads, while indirect modification adjectives are merged higher in a distinct projection hosting the predicative of a reduced relative clause – but, he notes that *possible* and *wrong* can also be located higher than NumP. Marušič and Žaucer 2013, motivated by Keenan’s 2013 analyses of English phrases such as *a pleasant three days in Philadelphia*, propose a bi-nominal structure with partially repeating *f*-sequence, two distinct #P projections and doubled direct and indirect adjective modification projections for interpreting Slovenian phrases such as *tri ta leve tri stolpce* (*three left three columns*). The paper argues for a third type of adjective modification, analyzed higher, at the left periphery of DP, more precisely, in Spec of dP, where the adjective’s lexical content is interpreted as a contribution to the identification of the referent of the entire nominal expression and not as a part of the reference’s positive description. Consider the following examples from Serbo-Croatian (SC):

- (1) a. **izvesna** tri **izvesna** projekta    b. **određena** dva **određena** saradnika (SC)  
Certain three expectable projects    certain two appointed co-workers  
‘certain three expectable projects’    ‘certain two appointed co-workers’

The adjectives *izvesni/određeni/certain* can appear in pre-cardinal position, they always trigger a (indefinite or definite) referent-specific interpretation to the entire nominal expression, they regularly have only the long adjective form (LAF, traditionally labeled *definite adjective aspect*) but never the short one (SAF, *indefinite adjective aspect*), \**izvestan*/\**određen* (=certain), and they never combine with indefinite „determiners“ like *jedan* and *neki* (=a(one)/some), (2). Moreover, these adjectives **can** precede SAFs, contrary to what has been argued in literature that, if SAFs and LAFs can combine, only SAFs can precede LAFs, but never *vice versa* (Fekete 1969, Leko 1992, Giusti 2006, Cinque 2010), (3).

- (2) ??*jedan/neki izvesni* novinar (intended: ‘a certain journalist’)

- (3) **određeni**<sub>LAF</sub>/**\*određen**<sub>SAF</sub> **bolestan**<sub>SAF</sub> siromašni<sub>LAF</sub> dečak (a certain sick poor boy)

The fact that these adjectives have the adequate number feature suggests that they are probably merged as Cinque's indirect modifications below #P and that they subsequently move to the left periphery of DP. We propose that the movement of these adjectives is motivated by the specificity feature in the head of dP and that they finally reach Spec of dP, where the adjectives get the LAF and their discourse-relevant specific reading, ultimately blocking the co-appearance of the indefinite items *jedan/neki* in (2):

- (4) [<sub>DP</sub> [<sub>SPEC,DP</sub> *izvesna*] [<sub>D'</sub> [<sub>d</sub> [<sub>+/spec/</sub>]]] [<sub>#P</sub> [<sub>tr/</sub>]] [<sub>FP</sub> [<sub>AP</sub> ^ *izvesna*] [<sub>NP</sub> ^ *projekta*]]]]]

In addition, we present a whole series of adjectives that can be located pre-cardinally, have a referent-modifying semantics, appear strictly as LAF and can precede SAFs (to name a few):

- (5) a. **Nepoznata** dva **nepoznata** umetnika b. **pomenuti** sjajan ručni rad  
 Unknown two not famous artists mentioned<sub>LAF</sub> great<sub>SAF</sub> hand-made item  
 'two unknown not famous artists' 'the mentioned great hand-made item'

The summary is threefold. Firstly, beside Cinque's 2010 two types, there is a distinct, third type of adjective modification at the left periphery, where the adjectives modify the referent, and not the reference of the noun phrase. Secondly, this type of modification allows for LAFs to precede SAFs in SC. Finally, the data presented suggests the existence of a functional projection with „D flavour“ above cardinal projection in SC, a language without articles.

## References

- Aljović, Nadira. 2002. "Long Adjectival Inflection and Specificity in Serbo-Croatian." *Recherches linguistiques de Vincennes*, 31: 27–42.
- Bošković, Željko. 2008. "What Will You Have, DP or NP?" In *Proceedings of the North East Linguistic Society 37*, (eds.) Emily Elfner and Martin Walkow, 101–114. Amherst: GLSA, University of Massachusetts.
- Caruso, Đurdica Ž. 2011. "In a Support of a DP-Analyses of Nominal Phrases in Croatian." Paper presented at the Workshop on Languages With or Without Articles, Paris (CNRS and Université Paris 8), March 3–4.
- Caruso, Đurdica Ž. 2012. "The Syntax of Nominal Expressions in Articleless Languages: A Split-DP Analysis of Croatian Nouns." PhD diss., Institut für Linguistik/Anglistik der Universität Stuttgart.
- Cinque, Guglielmo. 2005a. "Deriving Greenberg's Universal 20 and its exceptions." *Linguistic Inquiry* 36 (3): 315–332.
- Cinque, Guglielmo. 2005b. The dual source of adjectives and phrasal movement in the Romance DP, ms. Univ. of Venice.
- Cinque, Guglielmo. 2010. *The Syntax of Adjectives: A Comparative Study*. MIT Press: Cambridge, MA.



- Fekete, Egon. 1969. "Oblik, značenje i upotreba određenog i neodređenog pridevskog vida u srpskohrvatskom jeziku". *Južnoslovenski filolog* 28/1,2: 321-386.
- Giusti, Giuliana. 2006. "Parallels in clausal and nominal periphery". In (ed.) Mara Frascarelli *Phases of Interpretation*. Berlin, New York (Mouton de Gruyter). 163-186.
- Hintikka, Jaakko. 1986. "The Semantics of *Certain*." *Linguistic Inquiry* 17: 331-336.
- Keenan, Caitlin. 2013. "'A Pleasant Three Days in Philadelphia': Arguments for Pseudopartitive Analyses". *University of Pennsylvania Working Papers in Linguistics* 19.1 (*Proceedings of the 36<sup>th</sup> Annual Penn Linguistics Colloquium*): 87-96.
- Leko, Nedžad. 1992. "Restrictive and Appositive Forms of Serbo-Croatian Descriptive Adjectives". *Zeitschrift für Slawistik* 37: 621-629.
- Leko, Nedžad. 1999. "Functional Categories and the Structure of the DP in Bosnian." In (eds.) Mila Dimitrova-Vulchanova and Lars Hellan *Topics in South Slavic Syntax and Semantics*. 229-252. Amsterdam: John Benjamins.
- Marušič, Franc and Rok Žaucer. 2013. "On Prenumeral adjectives". Paper presented at FDSL 10, University of Leipzig (in print).
- Stanković, Branimir. 2014. "Arguments for a DP Analyses of Serbo-Croatian Nominal Expressions". In (ed.) Ludmila Veselovská *On Noun Phrase Structure*, Palacký University, Olomouc, Czech Republic.

## Hana Strachonová

Masaryk University, Brno, Czech Republic  
 hana.strachonova@gmail.com

### Watch out for the universal quantifier!

There is a vast both general (Aloni 2007a,b; Horn 2000; Kadmon&Landman 1993) and Slavic focused (Błaszczak 2008; Šimík 2008) literature on free choice items (FCIs). We build on the insights of the mentioned authors but bring a new analysis of the Czech data to explain some of the facts specific for Slavic. We follow the classical approach to FCIs (Kadmon&Landman, 1993; they are indefinites with additional strengthening and widening constraints) and combine it with the modal semantics of Aloni 2007b and the morphological blocking principle (used in Pereltsvaig 2006). **The puzzle:** Czech (as well as other Slavic languages) poses a problem for general theories of FCIs, because Czech FCIs do not occur under sentential negation (so called 'bagel problem' by Pereltsvaig 2006, see (1)), while they are perfectly acceptable in other downward entailing (DE) contexts, as in (3). In other respects, Czech FCIs (namely the FCIs of the morphological structure: *wh*-stem + *koliv* suffix encoding the FC meaning) follow the distribution of *any*: they are banned from episodic sentences (see (2); classical explanation in Kadmon&Landman 1993) but they are often used in

modal (4), generic, habitual etc. statements. Surprisingly Czech FCIs are not banned from sentences containing both: a modal verb and sentential negation; in (5). Our analysis brings arguments in favour of semantic explanation of this fact (in contrast to the syntactic one), which can be seen as its principal merit. **The analysis:** We follow Kadmon&Landman 1993 working on the assumption that Czech FCIs can appear only in the contexts where they logically strengthen the meaning of the sentence (compared to regular indefinites). The strengthening effect is usually related to two kinds of operators: 1) the DE operators and 2) operators that can be treated as introducing a universal quantification over sets of propositional alternatives (in the sense of Aloni 2007a,b: her formalization of a possibility modal sentence with FCI in (9) and of the propositional alternatives in (10)). It is argued in Aloni 2007a,b that the insertion of propositional alternatives is the extra semantic contribution of FCIs (unlike regular indefinites). **The proposal:** We build on the assumption of Pereltsvaig 2006 that Slavic FCIs don't occur in the scope of the sentential negation (although according to Kadmon&Landman 1993 the negation as DE operator should license them) because of the morphological blocking by negative indefinites (n-words). This explanation works in cases where both propositions (the one with an FCI and the other with an n-word) have the same meaning. That is not the case of (5) and (6); see the formalization in (7) for sentence in (5) and in (8) for sentence in (6). We extend the approach of Aloni 2007b and argue that the universal quantifier over alternatives introduced by the possibility modal context is responsible for the different truth conditional meaning of (5) and (6), which explains the fact that both FCI and n-words are acceptable in the same syntactic environment (in contrast to the sentential negation only).

- |   |   |
|---|---|
| <p>(1) # <b>Kdokoliv</b> nepřišel.<br/>who-<i>koliv</i> NEG-came<br/>(intended: 'Didn't come anybody.')</p> <p>(3) Přišel bez <b>jakýchkoliv</b> problémů.<br/>came without what-<i>koliv</i> problems<br/>'He came without any problems.'</p> <p>(5) Nemohl přijít <b>kdokoliv</b>. ...FCI<br/>NEG-could come who-<i>koliv</i><br/>'Couldn't have come just anybody.'</p> <p>(7) <math>\neg \forall p[(p \wedge \exists x(p=[\text{person}(x) \ \&amp; \ \text{come}(x)]) \rightarrow \exists w(p))</math></p> <p>(8) <math>\neg \exists w[\exists x(\text{person}(x) \ \&amp; \ \text{come}(x))]</math></p> <p>(9) MAY <math>\exists p(p \wedge \exists x(p=A(x))) \approx \forall \alpha \exists w(A(x))</math></p> <p>(10) <math>\exists p(p \wedge \exists x(p=A(x)))</math></p> <p><math>\alpha</math> - alternatives; p - set of propositional alternatives; A - predicate; x - individual</p> | <p>(2) # <b>Kdokoliv</b> přišel.<br/>who-<i>koliv</i> came<br/>(intended: 'Somebody came.')</p> <p>(4) Mohl přijít <b>kdokoliv</b>.<br/>could come who-<i>koliv</i><br/>'Anybody could have come.'</p> <p>(6) Nemohl přijít <b>nikdo</b>. ...n-word<br/>NEG-could come nobody<br/>'Nobody could have come.'</p> |
|---|---|

## References

- Aloni, Maria. 2007a. Free choice and exhaustification: an account of subtrigging effects. In Estela Puig-Waldmueller (ed.), *Proceedings of Sinn und Bedeutung 11*. Barcelona: Universitat Pompeu Fabra.
- Aloni, Maria. 2007b. Free Choice, Modals and Imperatives. *Natural Language Semantics*, 2007, vol. 15, pp. 65–94.
- Błaszczak, Joanna 2008. The Puzzle of kolwiek-Pronouns in Polish, in: Jayez, J. and L. Tovenà (eds.), *Free Choice: Facts, Models and Problems*. Workshop Proceedings, 20th European Summer School in Logic, Language and Information, August 11–15, Hamburg, Germany, 3–12.
- Horn, L. R. 2000. Any and (-)ever. Free choice and free relatives. *Proceedings of IATL 15*: 71–111.
- Kadmon, Nirit & Fred Landman. 1993. Any. *Linguistics and Philosophy*, 16, 353–422.
- Pereltsvaig, Asya. (2006). Negative polarity items in Russian and the 'bagel Problem'. In Brown, S. & A. Przepiorkowski (eds.), *Negation in Slavic*. Bloomington: Slavica Publishers. 153 – 178.
- Šmík, Radek. 2008. On free choice-like wh-based expressions in Czech. in: Jayez, J. and L. Tovenà (eds.), *Free Choice: Facts, Models and Problems*. Workshop Proceedings, 20th European Summer School in Logic, Language and Information, August 11–15, Hamburg, Germany, 3–12.

## Laurel Smith Stvan

University of Texas at Arlington, USA  
stvan@uta.edu

## Truth is, sentence-initial bare shell nouns are increasing

Abstract shell nouns such as *truth*, *problem*, and *thing* have been mainly investigated synchronically, often as case studies of particular noun types (Tuggy 1996, Aijmer 2007, Delahunty 2011). In one common construction subtype (Schmid 2000) the noun serves as the subject in pre-clausal units: *The thing is*, *The truth is*. A further subset of these subject NPs, found in informal genres, lacks a determiner before the subject noun. Because they make up a much smaller percentage of any corpus tokens, the bare forms are only briefly noted in other works. We suggest that these abstract bare forms are motivated by different sources than those controlling concrete count nouns found in bare forms, which have some referential uses and some predicative uses (de Swart et al. 2007, Stvan 2007). Lack of referentiality of the shell nouns in preclausal units would help confirm if such forms function now as pragmatics markers (Brinton 2010, Keizer 2013) and also would support a hypothesis that they are grammaticalizing into a less-than-clause level unit (Aijmer 2007). Focusing on American English data, the current paper examines two aspects of preclausal, sentence-initial bare shell nouns: 1) In the preclausal position, are bare

forms of these abstract nouns used referentially? 2) Is there evidence, in informal genres, of diachronic change towards a greater use of these reduced forms in pre-clausal position?

Data from CoCA and CoHA was examined to collect the range of sentence-initial bare form shell nouns in current use, as well as to track any changes in their use occurring between 1810 and 2013. We conclude that although the bare nouns are already limited in their range of referents (to text deictic uses that name a proposition), their further discourse anaphoric abilities via later pronouns are even more limited, as witnessed by the three lone examples we found in COCA, shown in (a)–(c). This suggests a different function than that shown by bare singular count nouns. Furthermore, the diachronic data showed that bare forms + *is*, followed by punctuation or by complementizers, are occurring in steadily increasing numbers across the past two centuries, as shown in the chart in Figure 1: In the 400 million words from 180-1989, a total of 307 tokens of preclausal units with bare shell nouns were found, while in the 450 million words of CoCA non-academic texts, 1183 tokens occurred. The number of noun types also greatly increased. In short, bare shell nouns have limited referring abilities beyond identifying their complement clauses. And the reduced forms, lacking both determiner and complementizer, are used more often. Together these findings support the idea that the truncated clauses are grammaticalizing.

- (a) **Thing<sub>i</sub>** is, and I have learned **this<sub>j</sub>** from working at the -- the, with the tribal people, the Coeur d'Alene people, I **never understood how important it was to know where you came from<sub>i</sub>**, because if you don't know, it sort of is like, you are just hatched out of an egg. (Spoken broadcast, 2001)
- (b) **Problem<sub>j</sub>** is, and **what worries the hell out of me<sub>i</sub>**, is **stuff like this brings out other squirrels<sub>j</sub>**. Gives' em ideas. (Fiction, 2001)
- (c) **Truth<sub>i</sub>** is, though, and you know **it<sub>j</sub>** at sight and without a second thought, **Barfoot has known every kind of pain<sub>i</sub>**. (Fiction, 1990)

Figure 1. Diachronic Occurrences of Bare Shell Noun Subjects

Timeframe	[Bare Shell Noun] + <i>is</i> + punctuation	[Bare Shell Noun] + <i>is</i> + complementizer
1810-1834 (COHA)	3	0
1835-1859 (COHA)	8	0
1860-1884 (COHA)	25	0
1885-1909 (COHA)	39	1
1910-1934 (COHA)	57	8
1935-1959 (COHA)	67	18
1960-1989 (COHA)	108	15
1990-2013 (COCA)	1183	104

## References

- Aijmer, Karin. 2007. "The Interface Between Discourse and Grammar: *the fact is that*." In *Connectives and Discourse Landmarks* edited by Agnès Celle and Ruth Huart, 31-46. Amsterdam/Philadelphia: John Benjamins.
- Brinton, Laurel J. 2010. "Discourse Markers." In *Historical Pragmatics*, edited by Andreas H. Jucker & Irma Taavitsainen, 285-314. Berlin: Mouton de Gruyter.
- Davies, Mark. 2008-. *The Corpus of Contemporary American English (COCA): 400+ Million Words, 1990-present*. <http://www.americancorpus.org>.
- Delahunty, Gerald. 2011. Contextually Determined Fixity and Flexibility in Thing Sentence Matrixes. In *Yearbook of Phraseology 2*, edited by Koenraad Kuiper, 109-135. Berlin: Mouton de Gruyter.
- Keizer, M. Evelien. 2013. The *X is (is)* construction. In *Casebook in Functional Discourse Grammar*, edited by J. Lachlan Mackenzie and Hella Olbertz, 213-248. Amsterdam/Philadelphia: John Benjamins.
- Schmid, Hans-Jörg. 2000. *English Abstract Nouns as Conceptual Shells: From Corpus to Cognition*. Berlin/New York: Mouton de Gruyter.
- Stvan, Laurel Smith. 2007. "The Functional Range of Bare Singular Count Nouns in English. In *Nominal Determination: Typology, Context, Constraints, and Historical Emergence*, edited by Elisabeth Stark, Elisabeth Leiss, and Werner Abraham, 171-187. Amsterdam/Philadelphia: John Benjamins.
- de Swart, Henriëtte, Yoad Winter, and Joost Swarts. 2007. "Bare Nominals and Reference to Capacities." *Natural Language and Linguistic Theory* 25: 195-222.
- Tuggy, David. 1996. "The Thing Is Is that People Talk That Way. The Question Is Is Why?" In *Linguistics in the Redwoods: The Expansion of a New Paradigm in Linguistics*, edited by Eugene H. Casad, 713-52. Berlin/New York: Mouton de Gruyter.

## Sandhya Sundaesan and Thomas McFadden

Universität Leipzig & ZAS, Berlin, Germany

sandhya.sundaesan@uni-leipzig.de & mcfadden@zas.gwz-berlin.de

### In support of an articulated event-layer

We argue, based on data from Tamil (Dravidian), for an articulated *v* layer, transparently reflected in agglutinative morphemes combining with the V-root. Transitivity alternations are typically marked by a systematic distinction on the morpheme directly following the V-root: thus, unaccusative (1) has voiced *-ndʒ-* while transitive (2) has voiceless geminate *-čč-*:

- |   |  |
|---|--|
| (1) Paanæ oɖæ-ndɔ̃-adũ<br>Pot break-INTR.PST-3NSG<br>“The pot broke.” | (2) Sri paanæ-jæ oɖæ-čč-aan<br>Sri pot-ACC break-TR.PST-3MSG<br>“Sri broke the pot.” |
|---|--|

As this alternation directly tracks transitivity, we propose that it involves Kratzer's (1996) Voice, introducing the external argument. (3) provides evidence for further articulation:

- (3) Paanæ Sri-aal oɖæ-kka-paɽ-t-adũ/\*oɖai-ga-paɽ-t-adũ.  
Pot Sri-INSTR break-TR-PASS-PST-3NSG/\*break-INTR-PASS-PST-3NSG  
“The pot was broken by Sri.”

Passives are built by adding a distinct morpheme to the transitive alternant, supporting the view (e.g. Embick, 2004) that they are more “agentive” than unaccusatives, and best captured if PSV and VOICE are two separate heads. Consider now a reflexive structure:

- (4) Sri<sub>i</sub> tann-æ<sub>(i, ʃ)</sub> aɖi-ččũ-kko-ŋɖ-aan/\*aɖi-čč-aan.  
Sri ANAPH-ACC hit-TR-koɭ-PST-3MSG/\*hit-TR.PST-3MSG  
“Sri<sub>i</sub> hit himself<sub>(i, ʃ)</sub>.”

Co-argument reflexivity in Dravidian is typically only possible with the verbal suffix *koɭ*, as in (4). *koɭ* also marks unaccusatives, reminiscent of the voice-based analyses of reflexivity inspired by similarities in the marking of reflexives and unaccusatives (see proposals in Alexiadou et al. 2004). Indeed Lidz (2001) gives a voice-based treatment of *koɭ* in Kannada (Dravidian). However, *koɭ* (at least in Tamil) must in fact be distinct from Voice: I. *koɭ* is optional on unaccusatives (compare (1) with (5)); II. the verb in (5) is marked intransitive independent of *koɭ*; III. *koɭ* also optionally marks (non-reflexive) transitives, as in (6):

- |   |   |
|---|---|
| (5) Paanæ oɖæ-ndɔ̃ũ/*ččũ-ko-ŋɖ-adũ.<br>Pot break-INTR/*TR-koɭ-PST-3NSG<br>(roughly) “The pot got broken.” | (6) Sri paanæ-jæ oɖæ-ččũ/*ndɔ̃ũ-ko-ŋɖ-aan<br>Sri pot-ACC break-TR/*INTR-koɭ-PST-3MSG<br>(roughly) “Sri got the pot broken.” |
|---|---|

Sundaesan (2012) shows that *koɭ* has a “middle-like” semantics similar to GET-passives (McIntyre, 2011), which allows co-argument reflexivity. Thus middle semantics is hosted by another head distinct from and above Voice. Now we can string all these morphemes together:

- (7) Paanæ Sri-aal oɖæ-ččũ-kollæ-paɽ-t-adũ/\*oɖæ-ččũ-paɖæ-ko-ŋɖ-adũ.  
Pot Sri-INSTR break-TR-koɭ-PASS-PST-3NSG/\*break-TR-PASS-koɭ-PST-3NSG  
“The pot got broken by Sri.”

Voice, middle, and passive are realized discretely, providing Mirror-Principle evidence for the ordering PSV > ‘GET’ > VOICE > V-root. Thus, *v* should be seen as a layer or domain (much like C, see Rizzi, 1997) consisting of heads manipulating distinct aspects of the event semantics (see also Adger, 2007, Ramchand & Svenonius, 2013). An important question is whether this articulation is universal. Potential support for this idea, even in languages like English without

morphologically differentiated heads, comes from GET-passives, which are ambiguous between “agent” and “patient” readings (e.g. “Susi got her teeth pulled out.”). Single-head approaches must posit underspecification or syncretism to handle this, but it falls out naturally under the current approach which divorces the semantics of Voice from GET. We also don’t have to posit a large number of null heads in languages like English; since the relevant heads are contiguous, we can instead propose that the overt morphology in these languages “spans” a series of them (Ramchand, 2008).

## References

- Adger, David. 2007. Three domains of finiteness: a minimalist perspective. In Irina Nikolaeva, ed., *Finiteness: theoretical and empirical foundations*. Oxford: Oxford University Press.
- Alexiadou, Artemis, Elena Anagnostopoulou and Martin Everaert, eds. 2004. *The unaccusativity puzzle*. Oxford: Oxford University Press.
- Embick, David. 2004. Unaccusative syntax and verbal alternations. In Alexiadou et al., eds. *The unaccusativity puzzle*. Oxford: Oxford University Press.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck and Laurie Zaring, eds., *Phrase structure and the lexicon*. Dordrecht: Kluwer.
- Lidz, Jeffrey. 2001. The argument structure of verbal reflexives. *Natural Language and Linguistic Theory* 19:311-353.
- McIntyre, Andrew. 2011. English *get*-passives, middle voice and causative-passive ambiguities. Ms. University of Neuchatel.
- Ramchand, Gillian. 2008. *Verb meaning and the lexicon: a first phase syntax*. Cambridge: Cambridge University Press.
- Ramchand, Gillian, and Peter. Svenonius. 2013. Deriving the functional hierarchy. Talk presented at GLOW 36.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In Liliane Haegeman, ed., *Elements of Grammar*. Dordrecht: Kluwer.
- Sundaresan, Sandhya. 2012. Context and (co)reference in the syntax and its interfaces. Doctoral Dissertation, University of Tromsø/Stuttgart.

## Magdalena Szczyrbak

Jagiellonian University, Kraków, Poland  
magdalena.szczyrbak@uj.edu.pl

### ***Of course, indeed or clearly?* The interactional potential of modal adverbs in legal genres**

The paper explores the rhetorical potential of modal adverbs and it brings an interactional dimension to the study of legal genres. In agreement with Traugott (2010, 15), it follows the view that “very little language use is purely monologic” and that speakers and writers frequently position themselves towards alternative viewpoints, contesting or refuting counterarguments and expressing doubt. Therefore, motivated by the dynamic approach to adverbs proposed by Simon-Vandenberg and Aijmer (2007), I intend to demonstrate the rhetorical usefulness of this class of words and interpret their argumentative use in the context of spoken and written legal genres.

Using data from adversarial proceedings, US Supreme Court oral arguments and written opinions as well as opinions of the Advocates General at the European Court of Justice, I examine the deployment of the four subgroups of modal adverbs distinguished by Simon-Vandenberg and Aijmer (2007), i.e. epistemic, evidential, expectation and speech act adverbs, to see how they are exploited for interpersonal purposes. In doing so, I rely on the notions of stance (du Bois 2007) and heteroglossia (Bakhtin 1981) to show that modal adverbs are used to evaluate objects and to position subjects, on the one hand, and to invoke alternative viewpoints, on the other. The most frequent rhetorical functions of modal adverbs identified in the corpus include, for instance, backgrounding and foregrounding contradictory opinions, conveying power and asserting authority, adding emphasis or stressing solidarity.

As revealed by the study, modal adverbs serve a number of rhetorical purposes and contribute to the dialogic orientation of legal discourse. As such, they are used not only to assess the reliability of information, but also to express the speaker’s or the writer’s alignment with or disalignment from other arguments.

#### **References**

- Bakhtin, Mikhail M. 1981. *The Dialogic Imagination. Four essays by M.M. Bakhtin*, edited by Michael Holquist. Translated by Caryl Emerson and Michael Holquist. Austin: University of Texas Press.



- Du Bois, John W. 2007. "The stance triangle." In *Stancetaking in discourse: Subjectivity, evaluation, interaction*, edited by Robert Englebretson, 139–182. Amsterdam, Philadelphia: John Benjamins.
- Simon-Vandenbergen, Anne-Marie and Aijmer Karin. 2007. *The semantic field of modal certainty. A corpus-based study of English adverbs*. Berlin, New York: Mouton de Gruyter.
- Traugott, Elizabeth 2010. Dialogic contexts as motivations for syntactic change. In *Variation and Change in English Grammar and Lexicon*, edited by Robert A. Cloutier, Anne Marie Hamilton-Brehm, William A. Kretzschmar, 11–27. Berlin, New York: Mouton de Gruyter.

## Enikő Tóth, Péter Csatar, and Arina Banga

University of Debrecen, Hungary

toth.eniko@arts.unideb.hu; csatar.peter@arts.unideb.hu; arinabanga@gmail.com

### Factors influencing the use of demonstratives in Dutch and Hungarian

The aim of the present paper is to test various hypotheses regarding the choice of **proximal and distal demonstratives** in Dutch and Hungarian in an experimental framework. In the languages concerned there are two types of demonstratives: *dit/deze* and *ez/ezek* 'this/these' are called proximals, whereas *dat/die* and *az/azok* 'that/those' are distals in Dutch and Hungarian, respectively. The terms themselves are based on the traditional view of demonstratives (Fillmore 1971/1997, Levinson 2004, O'Keefe et al 2011).

A given use of a demonstrative will be classified as deictic, if the expression in question refers directly to the extra-linguistic context. Within deictic cases, a further distinction can be made between indexical and non-indexical uses (cf. Levinson 2004, Piwek et al. 2008). Indexical demonstratives (IDs) are accompanied by a pointing gesture, while non-indexical demonstratives are not. IDs may be treated as prototypical cases of demonstratives, and accordingly, indexicals will form the scope of the present analysis.

The starting point of our analysis is the fact that the traditional view, i.e. that deictic expressions encode basic semantic notions of relative distance from the speaker, has been challenged by various authors (Sidnell 2009, Enfield 2003, Piwek et al. 2008, Diessel 2012). It has been assumed that other factors also play an essential role in the choice of IDs. Recently, Piwek et al.'s work on Dutch (Piwek et al. 2008) proposed accessibility as a basic factor influencing the choice of indexicals (cf. also Ariel 2004, Strauss 2002). However, Luz and Van der Sluis (Luz & Van der Sluis 2011) tested the Accessibility and the Distance Hypothesis and found distance (and not accessibility) to be a decisive factor in Dutch, English and Portuguese.

In order to compare the use of demonstratives in neutral (i.e. non-contrastive) and contrastive contexts, and to investigate the factors mentioned above in Dutch and Hungarian we carried out the following experiment. Adopting Luz and Van der Sluis's (2011) experimental design, we used the so called scripted dialogue technique. 37 native speakers of Hungarian and 48 native speakers of Dutch participated in the experiment. (for the links to the tests see References) The results were analysed using the chi-square test.

We have found a significant difference between the choice of indexicals depending on the nature of the context (contrastive vs. non-contrastive). In non-contrastive contexts distance plays a crucial role in both languages, while accessibility as a determining factor was ruled out both in Dutch and in Hungarian. In the case of contrastive contexts, where the referent is highly accessible and close to the speaker, the pattern of IDs has changed significantly, i.e. distals were preferred in both languages. We conclude that since there is a significant difference between contrastive and non-contrastive contexts, there must be a factor that interacts and competes with distance in contrastive contexts, which finally overwrites distance in these cases. It is left for future research to explore and test for the possible factor(s) involved in contrastiveness.

## References

- Ariel, Mira. (2004) "Accessibility Marking: Discourse Functions, Discourse Profiles, and Processing Cues." *Discourse Processes* 37 (2): 91-116.
- Diessel, Holger. 2012. "Deixis and demonstratives." In *An International Handbook of Natural Language Meaning*. Vol. 3, edited by Claudia Maienborn, Klaus von Heusinger and Paul Portner, 2407-2431. Berlin: Mouton de Gruyter.
- Enfield, Nick. 2003. "Demonstratives in Space and Interaction: Data from Lao Speakers and Implications for Semantic Analysis." *Language* 79 (1): 82-117.
- Fillmore, Charles J. 1971/1997. *Towards a Theory of Deixis. The PCCLLU Papers* 3.4 Hawaii: Department of Linguistics, University of Hawaii. Reprinted in Fillmore, Charles. J. *Lectures On Deixis*. Stanford: CSLI Publications.
- Levinson, Stephen C. 2004. "Deixis." In *The Handbook of Pragmatics*, edited by Laurence Horn and Gregory Ward, 97-121. Oxford: Blackwell.
- Luz, Saturno, and Ilka Van der Sluis. 2011. "Production of Demonstratives in Dutch, English and Portuguese Dialogues." In *Proceedings of the 13th European Workshop on Natural Language Generation*, edited by Claire Gardent & Kristina Striegnitz, 181-186. *Association for Computational Linguistics*.  
 Accessed January 14, 2013. <http://aclweb.org/anthology/W/W11/W11-2825.pdf>
- O'Keefe, Anne, Brian Clancy, and Svenja Adolphs. 2011. *Introducing Pragmatics in Use*. New York: Routledge.

- Piwek, Paul, Beun Robbert-Jan, and Anita Cremers. 2008. "'Proximal' and 'distal' in Language and Cognition: Evidence from Deictic Demonstratives in Dutch." *Journal of Pragmatics* 40, 694-718.
- Sidnell, Jack. 2009. "Deixis." In *Key Notions for Pragmatics*, edited by Jef Verschueren, and Jan-Ola Östman, 114-138. Amsterdam: John Benjamins.
- Strauss, Susan. 2002. "This, that, and it in Spoken American English: a Demonstrative System of Gradient Focus." *Language Sciences* 24: 131-152.
- The Hungarian test is available at the link below:  
[https://docs.google.com/forms/d/1d7xjw6yoWzw3fqGHCyrbv38qiS7fa9AgHN1\\_fu6dDDc/viewform](https://docs.google.com/forms/d/1d7xjw6yoWzw3fqGHCyrbv38qiS7fa9AgHN1_fu6dDDc/viewform)
- The Dutch test is available at the link below:  
<https://docs.google.com/forms/d/1hzzhtzX-r440bgnmIBcUcbyPtKiCb-C2LRTIVuefoso/viewform>

## Gabriella Tóth

Károli Gáspár University Budapest, Hungary  
 Gabitoth2@gmail.com

### Achievement Verbs and Event Quantification

Verkuyl (1993) claims that achievement verbs do not form an independent aspectual class. All dynamic verbs combined with bare deep objects (BDO) will result in atelic events in VP. This paper argues that a. in support of Moens and Steedman (1988) and Rothstein (2000) that achievement verbs form an independent aspectual class. In Hungarian dynamic verbs can co-occur with bare singular and bare plural deep objects. While process verbs are unambiguously atelic independently of the number of the BDO, achievement verbs will be unambiguously interpreted as telic when they are combined with singular BDOs. They are ambiguous between the telic and atelic reading when they are combined with plural BDOs as their English counterparts.

**The Data:** Even in English achievement verbs are ambiguous between telic and atelic readings as they allow both for time-span and durative adverbs.

1. Peter found fleas on his dog for a week/in a minute.

Sentence (1) allows for time-span adverbs when the event has single event interpretation (*one event of finding more than one flea*). It allows for durative adverbs, when it has the multiple-event reading (*more than one even of finding one or more than one flea*). Hungarian allows countable nouns to occur both in bare plural and bare singular form. Though bare singulars can be interpreted as plural in Hungarian (Maleczki 1992) the sentence with singular BDO can only have the single-event reading.

2. a. Egy perc alatt/\*egy percen át vendég érkezett a hotelbe.  
 \*for a minute/in a minute guest-sing-nom arrived in the hotel.  
 ' A guest/guests has/have arrived in the hotel in a minute/\*for a week.'

- b. János egy percen át/egy perc alatt bolhákat talált a kutyán..  
 János for a week/in a minute flea-plur-acc found dog-on  
 'John found fleas on his dog in a minute/for a week.'

In (2a) and (2b) the deep objects are bare nominals. In spite of that, sentences (2a) do not tolerate time-span adverbs, while sentences (2b) are ambiguous the same way their English counterparts are. The difference between (2a) and (2b) is that the former sentence has a bare singular object and it has unambiguously single-event reading while the latter one has a bare plural object and it is ambiguous between the single-event reading and the multiple-event reading. The question is whether it is possible to explain these facts in a compositional way within the VP domain. Bare singular and bare plural nominal constructions do not differ with respect to their quantificational properties in the sense of Verkuyl (1993) and Krifka (1992). In sentences (2a) and (2b) the events should unambiguously have atelic reading. I propose an analysis that relies on Kamp and Reyle (1993) that plural nominals can distribute over events. When an achievement verb is combined with a plural BDO, the bare plural can distribute over the event resulting the multiple-event reading interpretation. In this case the plural object has scope over the event (VP) and the sentence can be combined with durative adverbs. The other option is that the bare plural deep object does not distribute over the event. The resulting reading is the singular-event reading and the VP cannot be modified with time-span adverbs. In Hungarian and in English durative adverbs can be combined with sentences that contain plural BDO, the only option for English. When achievement situations have the single event reading, no event quantification occurs, VP aspect is not modified by the plural nominal. Therefore the unmarked case is the single event reading, which is the result of the composition of verbal and nominal properties within the VP domain. The quantification of the plural nominal construction over the event modifies VP aspect somewhat similar to frequency adverbs. This modification is due to the event quantification from outside VP and not to the composition of nominal and verbal properties in VP.

#### References:

- Kamp, H. and U. Reyle. (1993), *From Discourse to Logic*, Kluwer Academic Publishers, Dordrecht.
- Krifka, Manfred. (1992), Thematic Relations as Links between Nominal Reference and Temporal Constitution. In Ivan A. Sag, and Anna Szabolcsi (eds.) *Lexical Matters*. Stanford University.
- Landmann, Fred. (1992), 'The progressive'. *Natural Language Semantics* 1, pp 1-32.
- Rothstein, Susan (2004), *Structuring Events: A Study in the Semantics of Lexical Aspect*. Blackwell Publishing..

- Maleczki, Marta. (1992), 'Bare Common Nouns and Their Relation to the Temporal Constitution of Events in Hungarian', in P. Dekker and M. Stokhoff , eds. pp. 357-375. Institute for Logic, Language and Computation, University of Amsterdam.
- Moens, M. and M. Steedman (1987), 'Temporal ontology in natural language'. In: *Proceedings of the 25th Annual Meeting of The Association for Computational Linguistics*, Stanford University.
- Pinon, Chris (1995), 'Around the progressive in Hungarian', in: I. Kenesei, ed., *Approaches to Hungarian*, Vol. 5. JATE Press
- Verkuyl, Henk. (1993). *A Theory of Aspectuality*. Cambridge University Press.

**M. Voghera<sup>1</sup>, F. Cutugno<sup>2</sup>, C. Iacobini<sup>1</sup>, R. Savy<sup>1</sup>, I. Alfano<sup>1</sup>, A. De Rosa<sup>1</sup>**

<sup>1</sup> Università di Salerno, <sup>2</sup> Università di Napoli Federico II  
{voghera, ciacobini, rsavy, ialfano, aderosa}@unisa.it, cutugno@unina.it

### **VoLIP: a searchable Italian spoken corpus**

Spoken language is still underrepresented within the corpus linguistics and, particularly, in the Romance linguistics (Cresti&Moneglia 2005; O'Keeffe&McCarthy 2011; McEnery&Hardie 2012). As far as Italian is concerned, although great efforts have been made in recent decades (Baroni 2010; Cresti&Panunzi 2013), the corpora of spontaneous spoken language are still few and display a limited range of diaphasic or diatopic variation (Cresti&Moneglia 2005). Even fewer corpora give access to audio files (Savy&Cutugno 2009), while most of them offer only orthographic transcriptions (Ludeling&Kyto 2008). This restricts very much not only phonetic and phonological investigations, but also the possibility of capturing the multidimensional nature of the meaning construction in spoken discourse. In fact, most of the syntactic phrasing, syntactic relations, information structure and sentence mood or modality can be triggered by specific prosodic forms. Therefore prosody and the interfaces between prosody and other levels of text are integral part of the grammar and necessary to the linguistic analysis of spoken language.

Starting from these considerations, we designed the VoLIP, a linguistic resource which a) allows a parallel access to acoustic and textual information of a corpus of Italian spontaneous spoken texts; b) is freely available on the portal [www.parlaritaliano.it](http://www.parlaritaliano.it) (Voghera 2010). The VoLIP matches the audio signal files with the orthographic transcriptions of the samples of the LIP Corpus (De Mauro *et al.* 1993), collected in the early 1990s to compile a frequency lexicon of spoken Italian. Its size was tailored to produce a reliable frequency lexicon for the first 3,000

lemmas and therefore, it consists of about 500,000 word tokens for 60 hours of recording. The corpus represents diaphasic, diatopic and diamesic variation. Texts are divided in five groups: A) face-to-face conversations; B) telephone conversations; C) bidirectional communicative exchanges with constrained turn-talking alternation, such as interviews, debates, classroom interactions, oral exams, etc.; D) monologues, such as lectures, sermons, speeches, etc.; E) radio and television programs. The texts in groups A and B belong both to formal and informal registers, while C, D, E texts are mainly recorded in public contexts, which select formal registers. The texts were collected in Milan, Rome, Naples and Florence. The first three cities were chosen in accordance with their geographical position as well as the number of inhabitants, as Rome, Naples and Milan are the most populated Italian cities. Florence was chosen because of its great relevance in the linguistic history of the Italian language. While the number of samples is variable, the corpus presents a balanced total number of words per city and per diaphasic situation, as reported in Table 1.

The VoLIP provides the audio-files of all the samples of the LIP corpus in wav files (Windows PCM, 22050Hz. 16 bit). It allows two kinds of queries in terms of: a) textual and register variables, as annotated in metadata IMDI format (Broeder et al. 2001; [www.mpi.nl/imdi/](http://www.mpi.nl/imdi/)); and, b) lexical and morpho-syntactic criteria. The two kinds of queries can be crosschecked. All the queries produce orthographic transcriptions matched with audio files. Lexical and morpho-syntactic search results in all the texts presenting the requested item (word form or lexeme) which is provided with the frequency of occurrence per city and per register. A word form can be singled out in the text and listened to. Word form sequences are also searchable, for example, “ho dormito” (‘I have slept’), “è una città che” (‘is a town that’), and the output can be both the transcription or the audio.

**Table 1: design of the corpus VoLIP**

<b>Cities</b>	<b>Face-to-face conversations</b>	<b>Telephone conversations</b>	<b>Interviews, debates, meetings</b>	<b>Monologues</b>	<b>Radio/TV</b>	<b>Total</b>
<b>Milan</b>	25,000	25,000	25,000	25,000	25,000	125,000
<b>Florence</b>	25,000	25,000	25,000	25,000	25,000	125,000
<b>Rome</b>	25,000	25,000	25,000	25,000	25,000	125,000
<b>Naples</b>	25,000	25,000	25,000	25,000	25,000	125,000
<b>Total</b>	100,000	100,000	100,000	100,000	100,000	500,000

## References

- Baroni, Marco. 2010. Corpora di italiano. In *Enciclopedia dell'italiano*, vol 1, edited by Raffaele Simone, Roma: Istituto della Enciclopedia Italiana: 300-303.
- Broeder, Daan, Offenga, Freddy, Willems, Don, Wittenburg, Peter. 2001. „The IMDI Metadata set, its Tools and accessible Linguistic Databases”, *Proceedings of the IRCS Workshop on Linguistic Databases*: 11-13.
- Cresti, Emanuela & Moneglia, Massimo (Eds.). 2005. *C-ORAL-ROM: integrated reference corpora for spoken romance languages*. John Benjamins.
- Cresti, Emanuela, Alessandro Panunzi. 2013. *Introduzione ai corpora dell'italiano*. Bologna: il Mulino.
- De Mauro Tullio, Federico Mancini, Massimo Vedovelli, Miriam Voghera. 1993. *Lessico di frequenza dell'italiano parlato*. Milano: Etaslibri.
- Lüdeling, Anke, Merja Kytö, eds. *Corpus Linguistics*. Vol. 1. Walter de Gruyter, 2008.
- McEnery Paul, Andrew Hardie. 2012. *Corpus Linguistics*. Cambridge: Cambridge University Press.
- O’Keeffe Anne, Michael McCarthy. 2010. *The Routledge Handbook of Corpus Linguistics*, Routledge.
- Savy, Renata, Cutugno, Francesco, 2009. CLIPS. “Diatopic, diamesic and diaphasic variations in spoken Italian” In *Proceedings of Vth Corpus Linguistic Conference (CL2009)*, edited by Mahlberg, Michaela / González-Díaz, Victorina / Smith, Catherine, 1-24 Liverpool, University of Liverpool.
- Voghera, Miriam. 2010. “Parlare italiano: towards a multidimensional description and a multidisciplinary explanation”. In *La comunicazione parlata 3*, edited by Massimo Pettorino Antonella Giannini, Francesca Dovetto, 603-617. Napoli: Università degli Studi di Napoli L’Orientale.

## Marcin Wągiel

Palacký University in Olomouc / Masaryk University in Brno, Czech Republic  
marcin.wągiel@upol.cz / marcin.wągiel@mail.muni.cz

## From kinds to objects: Prenominal and postnominal adjectives in Polish

**The issue:** Polish allows both prenominal and postnominal placement of As: (1a) *czarny dzięciol* (‘black woodpecker’); (1b) *dzięciol czarny* (‘woodpecker black’). Prenominal As are typically interpreted as predicates and get standard intersective semantics (with the exception of intensional As): (2a) *Kajtek to czarny dzięciol* (‘Kajtek is a black woodpecker = a woodpecker whose color is black’); (2b)  $\models$  *Kajtek to dzięciol* (‘Kajtek is a woodpecker’); (2c)  $\models$  *Kajtek jest czarny* (‘Kajtek is black’); (2d)  $\#$  *Kajtek to biały czarny dzięciol* (‘Kajtek is a white black woodpecker’). Interestingly, when postposed, even typical intersective As such as color As receive a so-called classificatory interpretation and seem to behave subsectively: (3a) *Kajtek to*

*dzięciol czarny* ('Kajtek is a black woodpecker = a representative of the species *Dryocopus martius*'); (3b)  $\models$  *Kajtek to dzięciol* ('Kajtek is a woodpecker'); (3c)  $\neq$  *Kajtek jest czarny* ('Kajtek is black'); (3d) *Kajtek to biały dzięciol czarny* ('Kajtek is a white black woodpecker = an albino representative of the species *Dryocopus martius*'). Moreover, though Polish NA complexes can shift between existential and generic interpretations freely, AN structures seem to lack generic interpretation: (4)  $\#$  *Czarny dzięciol wyginął* ('A black woodpecker is extinct').

**The framework:** The framework adopted in this paper is McNally & Boleda (2004)'s analysis of relational adjectives in Romance. This approach refuses the standard analysis of subjectively interpreted adjectives as predicate modifiers denoting properties of properties (Siegel 1976) and argues for their intersective semantics. McNally & Boleda build on standard theories of genericity (Carlson 1977b; Krifka et al. 1995) and Larsonian intersective semantics (Larson 1998) to provide a semantic interpretation of Catalan relational adjectives as denoting properties of kinds.

**The proposal:** Building on McNally & Boleda's analysis I propose that in Polish both prenominal and postnominal As are predicates, however the first denote properties of objects, while the latter denote properties of kinds (kinds are modeled as entities) and thus establish subkinds. According to the standard rule for intersective adjectives given in (6) it appears that Polish adjectival modifiers in both positions in question are in fact intersective. Different entailment patterns in (2a-d) and (3a-d) result from the fact that prenominal As take object-level arguments as presented in (7b), while postnominal As require kind-level arguments, see (7c). The reason why (2d) is anomalous is that the NP  $\#$  *biały czarny dzięciol* is contradictory. Since both adjectives occur prenominally, they select object-level entities as their arguments and the intersection of the sets denoted by *biały*, *czarny*, and *dzięciol* is the empty set which results in tautological truth-conditions of any sentence in which the NP occurs. On the other hand in (3d) it is the postnominal A *czarny* that first combines with the N to denote the property of a kind-level entity and after that the whole NA structure is modified by the prenominal A *biały* that denotes the property of an object realizing the kind, see (7d). As a result (3d) can be paraphrased as (5) *Kajtek to biały okaz dzięciola czarnego* ('Kajtek is a white representative of the black woodpecker') which expresses the exact meaning of (3d).

#### Formulae

- (6) For all N (or N')  $\alpha$  and A (or AP)  $\beta$ ,  $\llbracket \alpha \beta \rrbracket = \llbracket \alpha \rrbracket \cap \llbracket \beta \rrbracket$
- (7) a.  $\llbracket \text{dzięciol} \rrbracket = \lambda x_i \lambda y_d \lambda k_d \mathcal{R}(y_o, x_i) \wedge \text{woodpecker}(x_i)(k_i) =$   
 $= \lambda y_d \mathcal{R}(y_o, k_i) \wedge \text{woodpecker}(k_i)$
- b.  $\llbracket \text{czarny dzięciol} \rrbracket = \lambda x_i \lambda y_d \lambda k_d \mathcal{R}(y_o, x_i) \wedge \text{woodpecker}(x_i) \wedge \text{black}(y_o)(k_i) =$   
 $= \lambda y_d \mathcal{R}(y_o, k_i) \wedge \text{woodpecker}(k_i) \wedge \text{black}(y_o)$



- c.  $\llbracket \text{dzięcioł czarny} \rrbracket = \lambda x_k \lambda y_o \lambda y_d [\mathcal{R}(y_o, x_k) \wedge \text{woodpecker}(x_k) \wedge \text{black}(x_k)](k) =$   
 $= \lambda y_d [\mathcal{R}(y_o, k) \wedge \text{woodpecker}(k) \wedge \text{black}(k)]$
- d.  $\llbracket \text{biały dzięcioł czarny} \rrbracket = \lambda x_k \lambda y_o \lambda y_d [\mathcal{R}(y_o, x_k) \wedge \text{woodpecker}(x_k) \wedge \text{black}(x_k) \wedge$   
 $\wedge \text{white}(y_o)](k) = \lambda y_d [\mathcal{R}(y_o, k) \wedge \text{woodpecker}(k) \wedge \text{black}(k) \wedge \text{white}(y_o)]$

$x_k$  – a kind-level individual variable (Krifka et al. 1995);  $y_o$  – an object-level individual variable (Krifka et al. 1995);  $k_j$  – a contextually-determined kind (McNally & Boleda 2004);  $\mathcal{R}$  – a realization relation (Carlson 1977b)

## References

- Carlson, Gregory. (1977a). “A Unified Analysis of the English Bare Plural”. *Linguistics and Philosophy* 1: 413–456.
- Carlson, Gregory. (1977b). *Reference to Kinds in English*. Ph.D. dissertation. Amherst: University of Massachusetts.
- Cetnarowska, Bożena. (2013). “The Representational Approach to Adjective Placement in Polish”. *Linguistica Silesiana* 34: 7–22.
- Chierchia, Gennaro. (1998). “Reference to Kinds across Languages”. *Natural language semantics* 6: 339–405.
- Larson, Richard. (1998). “Events and Modification in Nominals”. In *Proceedings from Semantics and Linguistic Theory (SALT) VIII*, edited by Devon Strolovitch and Aaron Lawson, 145–168. Ithaca, NY: CLC Publications.
- McNally, Louise. (to appear). “Modification”. In *The Cambridge Handbook of Semantics*, edited by Maria Aloni and Paul Dekker. Cambridge: Cambridge University Press.
- McNally, Louise and Gemma Boleda. (2004). “Relational Adjectives as Properties of Kinds”. In *Empirical Issues in Formal Syntax and Semantics*, edited by Olivier Bonami and Patricia Cabredo Hofherr, 179–196. <http://www.cssp.cnrs.fr/eiss5>
- Mokrzycki, Marcin. (to appear). *Modification*.
- Siegel, Muffy. (1976). *Capturing the Adjective*. Ph.D. dissertation. Amherst: University of Massachusetts.

## Sean Wallis

Survey of English Usage, University College London  
 s.wallis@ucl.ac.uk

## What might a corpus of spoken data tell us about language?

The last two decades have seen corpus resources grow in scale, breadth, representativeness and linguistic variety. Thus an online survey of primarily English language corpora documents around 100 publicly-available corpora. Corpora are sources of three types of evidence: **discovery** (evidence of unknown phenomena),

**distribution** (relative proportions of phenomena), and **interaction** (how distributions may correlate or interact).

However it would be fair to comment that the primary result of this data acquisition has been the collection of large volumes of written text, mostly from sources, like student essays, newspaper archives or the World Wide Web, which were easy to acquire. By contrast, collecting and transcribing spoken data is laborious and costly.

The focus on the written word appears to be at odds with the scientific goal of universal linguistic description. Speech predates writing, in almost every aspect: the historical development of language, literacy spread, and individual child development. According to many theoretical accounts, internal speech is a precursor of writing. An hour of English speech in DCPSE consists of around 8,000 words: more than most authors could write in one day. Speech is output linearly, most writing permits post-editing. It is difficult to see how corpora that exclude speech data can be said to be linguistically representative, and theoretical claims based on the written word must be empirically suspect.

So what kinds of spoken data should we prioritise in our collections? What can we learn from existing corpora? Which research questions are possible with existing resources, and how might our future efforts be focused?

In this introduction to the workshop we will briefly examine some of the kinds of research questions we might be able to address with a particular state-of-art corpus of spoken English, the *Diachronic Corpus of Present-day Spoken English* (DCPSE). This is a fully-parsed corpus of spoken British English collected over the decades and in a number of different formal and informal settings. We will look at the types of research questions we can answer at present and what we might be able to answer were new data collected or new layers of annotation added.

## Susi Wurmbrand

University of Connecticut, USA  
susi@alum.mit.edu

### Restructuring across the world

The paper compares restructuring/clause union phenomena in 18 languages (see Table 1) and concludes that, despite greatly varying claims in the literature about the nature of restructuring in these languages, the distribution can be accounted for by three properties: i) a language has (A,B) or doesn't have (C,D) a lexical restructuring  $\nu$ head; ii) the projection targeted by clitics and/or scrambling is an A-projection

(A,D) or an A'-projection (B,C); iii) a language has a  $\nu$ P-internal and  $\nu$ P-external clitic/scrambling projection (A,B,C) or only a  $\nu$ P-internal one (D).

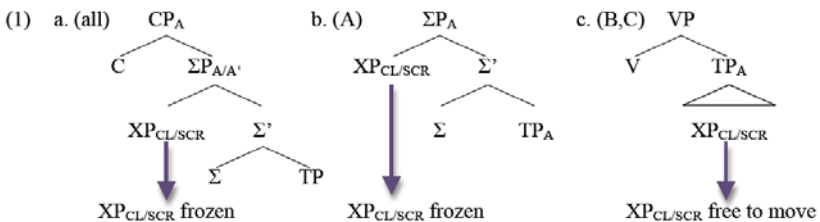
As the distribution in Table 1 shows, a simple restructuring-non restructuring split is not adequate, neither for characterizing languages nor for restructuring within one language. For instance, group C languages are 'restructuring' for the purpose of clitic climbing [CC] or scrambling [SCR] but not for the purpose of long passive. Similarly, in group B languages, future infinitives count as 'restructuring' for CC/SCR but not for long passive. I propose that the seemingly arbitrary distribution is the result of two types of restructuring: restructuring involving an underspecified  $\nu$ -head ( $\nu_R$ ), which is lexically restricted (A,B vs. C,D), and restructuring involving the omission of the A'-domain of a clause.

Following Wurmbrand (2013), a  $\nu_R$  is underspecified for  $\varphi$ - and  $\nu$ -values, which has several consequences:  $\nu_R$  cannot select a subject nor assign ACC case; to get valued,  $\nu_R$  must enter a local dependency with matrix  $\nu$  and the matrix subject;  $\nu_R$  must combine with a matrix V directly (no TP-projection can be added), and therefore only Vs that are semantically compatible with a tenseless (i.e., non-future) complement can merge with  $\nu_R$ . The combination  $V+\nu_R$ P then derives long passive, and languages that lack the lexical item  $\nu_R$  (C,D) cannot generate long passive. Furthermore, within groups A,B, matrix Vs can impose selectional restrictions on their complements and prohibit Merge with  $\nu_R$ P (e.g., in Italian and Spanish 'finish' allows long passive—i.e., Merge with a  $\nu_R$ P, but 'try' does not).

I argue that the second type of restructuring arises (hypothetically universally) by omitting the A'-domain of an infinitival clause. Note first that CPs always block restructuring (e.g., Cinque, Bondaruk, Kayne, Marušič). I assume that a CP entails the presence of the lower projection hosting CC/SCR. Following Sportiche (1996), CC/SCR target the same projections—an XP (labeled  $\Sigma$ P in (1)) above TP and below C (groups A,B,C). Movement of an  $XP_{SCR}$  or clitic associated *pro* to Spec, $\Sigma$ P freezes that XP in  $\Sigma$ P (this is derived by a *lethal closeness* restriction, which disallows movement of XP if there is a closer or equally close YP [ $\Sigma$ P in this case] with the same feature attracted; cf. also *\*What did you wonder John bought?* where *what* is frozen after feature valuation with embedded  $C_{wh}$ ). Thus, if  $\Sigma$ P is present, as in (1a,b), inter-clausal CC/SCR is blocked (languages with long-distance SCR are assumed to lack  $\Sigma$ P and SCR applies successive-cyclically through Spec,CP; cf. Grewendorf & Sabel). In  $\Sigma$ P-languages, long CC/SCR is thus only allowed when  $\Sigma$ P and CP are omitted as in (1c). Following Sportiche,  $\Sigma$ P can be an A- or A'-projection. This then leads to a new hypothesis regarding restructuring:  $\Sigma$ P can only be omitted in infinitives when it is an A'-projection. I show that the languages investigated so far support this hypothesis: CC/SCR is only possible out of TP (i.e., future) infinitives

when CC/SCR targets an A'-projection. In Groups B,C languages, CC/SCR licenses parasitic gaps, creates an improper movement configuration for further A-movement, and shows A'-reconstruction effects.  $\Sigma$ P is thus an A'-projection, which can be omitted along with CP as in (1c). In Group A (and D) languages, on the other hand, CC does not license parasitic gaps and  $\Sigma$ P is assumed to be an A-projection which must be present whenever TP is present as in (1b). Lastly, languages lacking  $\Sigma$ P but only having a clitic projection within the  $\mu$ P (Group D) never allow CC since A-projections cannot be left off.

	Long passive		Clitic climbing, scrambling or QR		
	-TNS	+FUT	-TNS	+FUT	CP
A: European Portuguese, Italian, Spanish, Czech, (Acehnese?)	✓	*	✓	*	*
B: Chamorro, German, Isbukun Bunun, Mayrinax Atayal, (Japanese)	✓	*	✓	✓	*
C: Dutch, Mandarin, Polish, Slovenian, Tagalog	*	*	✓	✓	*
D: Brazilian Portuguese, English, French	*	*	*: CC,SCR ✓ QR	*	*



### Selected References

- Aissen, Judith, and David Perlmutter. 1983. Clause reduction in Spanish. In *Studies in Relational Grammar 1*, ed. by D. Perlmutter, 360-403. University of Chicago Press.
- Bondaruk, Anna. 2004. *PRO and control in English, Irish and Polish: A Minimalist analysis*. Lublin, Poland: Wydawnictwo KUL.
- Burzio, Luigi. 1986. *Italian syntax: A Government and Binding approach*. Dordrecht: Reidel.
- Chen, Tingchun. 2010. Restructuring in Mayrinax Atayal. B. Arts Honours Thesis. McGill.
- Chung, Sandra. 2004. Restructuring and verb-initial order in Chamorro. *Syntax* 7.3:199-233.
- Grano, Thomas. 2012. Control and restructuring at the syntax-semantics interface. Doctoral dissertation, University of Chicago, Chicago, Ill.

- Kayne, Richard. 1989. Null subjects and clitic climbing. In *The null subject parameter*, ed. by Osvaldo Jaeggli and Kenneth Safir, 239-261. Dordrecht: Kluwer Academic Publishers.
- Marušič, Franc. 2005. On non-simultaneous phases. Doctoral dissertation, Stony Brook.
- Modesto, Marcello. 2013. Inflected infinitives and restructuring in Brazilian Portuguese Ms., Universidade de São Paulo. São Paulo, Brazil.
- Rizzi, Luigi. 1978. A restructuring rule in Italian syntax. In *Recent transformational studies in European languages*, ed. by Samuel Jay Keyser, 113-158. Cambridge, MA: MIT Press.
- Sportiche, Dominique. 1996. Clitic constructions. In *Phrase structure and the lexicon*, ed. by Johan Rooryck and Laurie Zaring, 213-276. Dordrecht: Kluwer Academic Publishers.
- Ting, Jen. 2010. On the climbing of the particle *suo* in Mandarin Chinese and its implications for the theory of clitic placement. *The Linguistic Review* 27.4:449-483.
- Wurmbrand, Susi. 2001. *Infinitives: Restructuring and clause structure*. Berlin/New York: Mouton de Gruyter.

## Hedde Zeijlstra

University of Göttingen, Germany  
 hzeijls@uni-goettingen.de

### Upward Agree is superior

**Background:** In Zeijlstra (2012), it is argued that the syntactic operation Agree may only apply between a probe that carries an uninterpretable feature and a goal that carries a matching interpretable feature, where the goal is the closest potential goal that c-commands the probe. Similar conclusions have also been reached by Wurmbrandt (2011, a.o.). This version of Agree has been dubbed Upward Agree (UA), as opposed to Downward Agree (DA), where the probe c-commands the goal. The proposal for UA has raised several criticisms, most notably by Preminger (2013). In short, Preminger stated that whereas certain instances of Agree should indeed be implemented in terms of UA (Negative Concord, Sequence of Tense), other instances of Agree should still be implemented in terms of DA. In this paper, I argue that the potential counter arguments rather show that Zeijlstra's original UA proposal was not strong enough and that under an even more restrictive version of UA all raised counterarguments vanish and, moreover, a well-known instance of macroparametric variation gets fully explained. The novel empirical and theoretical contribution of this proposal is that DA can only take place if it is accompanied by instance of UA.

**Proposal:** I argue that Zeijlstra's theory needs to be modified as follows. In the spirit of Zeijlstra (2012), new Agree relations can only be established in an upward fashion: a goal is **only** visible to a probe if the goal c-commands the probe. But if two elements already stand in an Agree relation, their features should be

visible to each other as well. A goal  $\beta$  is thus visible to a probe  $\alpha$  iff  $\beta$  c-commands  $\alpha$  or if  $\alpha$  and  $\beta$  already stand in an Agree relation. To see this, take the stage of the derivation in (1) before movement of  $\beta$ . Now, there are two options: either an element containing [iF] (e.g.  $\beta$  itself) is merged in the position immediately c-commanding  $\alpha$  and checks off its [uF] feature, or if no such element with such a feature merges there. In that case, lower  $\beta$ , carrying a feature [iF] that is visible to  $\alpha$ , will Agree with  $\alpha$  and no problem arises. In a way this is very reminiscent of Chomsky's *activation condition*, which states that a goal must carry an uninterpretable feature in order to be visible for the probe; the major difference is that, for Chomsky any goal must carry an uninterpretable feature to be able to participate in an Agree relation, whereas under this approach, only a goal that originates below the probe has to have one.

**Consequences:** First, the counterexamples: As discussed by Preminger, LDA phenomena were problematic for Zeijlstra's original approach. Under this modified view, they are not. Let's look at expletive agreement (a typical instance of LDA). In (1) *seems* in  $T^\circ$  has an interpretable [iT] feature and an uninterpretable  $\phi$  feature [ $u_3^{RD}$ .SING]. The DP's nominative case feature is [uT] (after Pesetsky & Torrego 2007) and can be checked off in its base position under Agree against  $T^\circ$ . However, the  $\phi$ -feature in  $T^\circ$  must be checked off by some higher interpretable  $\phi$ -feature. Either this is done by fronting the entire subject DP to Spec,TP or by inserting expletive *there*, which only contains person features (no number features), in Spec,TP leaving the real subject in situ (1). In both cases all feature checking requirements are fulfilled: the uninterpretable  $\phi$  feature in  $T^\circ$  is either fully checked against a higher matching uninterpretable  $\phi$  feature on *a student* or it is partially checked off by *there*. *there* and *seems* undergo 3<sup>rd</sup> person agreement. Since, *seems* still has an uninterpretable number feature and since *a student* is visible to *seems*, and movement of *a student* across *there* is forbidden, in situ number agreement is now possible as well. Second, according to this more restricted version of UA a  $\phi$ -agreeing DP that is base-generated below the finite verb, must stand in an additional Agree relation (*in casu* a case-Agree relation) with the finite verb. If it would not undergo case-Agree with this finite verb, this lower DP could never check off the verb's  $\phi$ -features either. This looks remarkably similar to two well-known macro-parameters presented in Baker (2008) that are also parametrically related: virtually all languages with a YES value for (3) have a NO value for (4) and vice versa. (Note that in all languages with a NO-value for (3) and a YES-value for (4) the subject does not appear below the finite verb, but always moves to Spec,TP for Baker due to some [EPP]-feature on  $T^\circ$ ). This parametric correspondence has never been properly explained, but it is naturally predicted by the new version of UA, presented here.

(1) Agree  $\Rightarrow$   $\left[ \begin{array}{c} [\beta] \\ [iF] \\ [\cancel{uK}] \end{array} \quad \left[ \begin{array}{c} [\alpha] \\ [\cancel{uF}] \\ [iK] \end{array} \quad \left[ \begin{array}{c} [\beta] \\ [iF] \\ [\cancel{uK}] \end{array} \right] \right]$

(2) There<sub>E[13RD]</sub> seems<sub>S[U3RD, USING[IT]]</sub> to have arrived [a student]<sub>[SING][UT]</sub>

(3) *The Direction of Agreement Parameter (DAP)* (Baker 2008): F agrees with DP/NP only if DP/NP asymmetrically c-commands F (Yes or No).

(4) *The Case Dependence of Agreement Parameter (CDAP)* (Baker 2008)  
F agrees with DP/NP only if F values the Case feature of DP/NP or vice versa (Yes or No).

### References:

- Baker, M. (2008). *The Syntax of Agreement and Concord*. Cambridge: Cambridge University Press.
- Bošković, Ž. (2007). 'On the locality and motivation of Move and Agree: An even more minimal theory.' *LJ 38*: 589-644.
- Pesetsky, D., and E. Torrego. (2007). 'The syntax of valuation and the interpretability of features.' S. Karimi et al. (eds.), *Phrasal and Clausal Architecture*. Amsterdam: Benjamins. 262-294.
- Preminger, O. (2013) Reversing agreement is untenable: a reply to Zeijlstra. *To appear in TLR*.
- Wurmbrand, S. (2011). *On Agree and Merge*. Ms UConn. Zeijlstra, H. 2012. There is only one way to agree. *TLR 29*: 491 – 539.

# Posters

**Petra Adámková**

Palacký University Olomouc, Czech Republic  
petra.adamkova@upol.cz

## **Czech saturative constructions: the semasiological analysis**

The present paper explains the development of Czech saturative constructions (i.e. constructions with a specific semantic subtype of perfective verbs referred to as saturative verbs) from the point of view of the theory of grammaticalization (Hopper & Traugott 2003; Brinton & Traugott 2005; et al.). Following Geeraerts (1997), it attempts at a semasiological analysis based on synchronic variability and checked against diachronic data (Lehmann 1982; more recently Fried 2013).

Saturative constructions are diachronically related to very frequent constructions with core vocabulary verbs (*drink, eat*), which express a simple conceptual meaning (Langacker 1987), where animate nouns in the grammatical subject are conceptualized as containers (Lakoff & Johnson 2003). The non-transitive saturative verb is a reflexive verb, as in (1):

(1) Napil se vody. | He drank water. | Drank.SG.MASC himself.ACC water.GEN.SG.

The noun in the non-obligatory object ('water' in this case) is in the genitive form, which means that the notion of 'a certain amount' is also still present in the construction ("he satisfied his thirst with 'a usual amount of' water").

The morphosyntactical complexity of the construction with a simple conceptual meaning then opens possibilities for its further development on the semantic and even on the pragmatic level. We can thus observe a meaning shift from "satisfaction" in (1) to "exhaustion" in (2):

(2) Napracoval se. | He worked a lot.: He (his capacity) was exhausted by working a lot.

Sentence (3) exemplifies a complex pragmatic meaning, in which the exhaustion is shifted from the grammatical subject to the speaker:

(3) Navymýšlel se nesmysly! | He made up a lot of nonsense!: The speaker was exhausted by the subject's capacity to invent a lot of nonsense.

The most prominent evidence for this development is a spreading of the construction, or its entrenchment (Geeraerts 1997 et al.), i.e., the construction starts to be used with a wide range of imperfective verbs, e.g. (2) and (3).

Such a spreading requires a certain level of grammatical, semantic and pragmatic generalization (Brinton & Traugott 2005; et al.), which consists in a sequence of subsequent reanalyses on each language level. In the middle stage of



reanalysis , or a microprocess (Fried 2009, 2013 et al.) a grammatical, semantic or pragmatic ambiguity can be observed; specific features are gradually reinterpreted as more general. Example (4) exemplifies such an ambiguity on the pragmatic level (4):

(4) Naotravoval se (s tím). | He was annoyed / has been annoying (with that).

Such a complex developmental path (developmental net) can be described as a semasiological map of the analyzed construction (Geeraerts 1997), one which has a structure of a radial category (Lakoff 1987).

## References

- Brinton, Laurel J. Elizabeth Closs Traugott. 2005. *Lexicalization and language change*. New York: Cambridge University Press.
- Fried, Mirjam. 2009. "Construction Grammar as a tool for diachronic analysis." *Constructions and Frames* 1 (2): 261–290
- Fried, Mirjam. 2013. "Principles of constructional change." In *The Oxford handbook of Construction Grammar*, edited by Graheme Trousdale and Thomas Hoffmann. Oxford: Oxford University Press
- Geeraerts, Dirk. 1997. *Diachronic prototype semantics: a contribution to historical lexicology*. New York: Oxford University Press.
- Hopper, Paul J. Elizabeth Closs Traugott. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.
- Lakoff, George. 1987. *Women, fire, and dangerous things: what categories reveal about the mind*. Chicago: University of Chicago Press.
- Lakoff, George. Mark Johnson. 2003. *Metaphors we live by*. Chicago: University of Chicago Press.
- Langacker, Ronald W. 1987. *Foundations of cognitive grammar*. Stanford, Calif.: Stanford University Press.
- Lehmann, Christian. 1997. "Thoughts on Grammaticalization." *Journal of Linguistics* 33 (1): 197–204

## Gábor Alberti and Judit Kleiber

ReALIS Theoretical, Computational and Cognitive Linguistics Research Team  
Department of Linguistics, University of Pécs, Hungary  
alberti.gabor@pte.hu, kleiber.judit@pte.hu

## ReALIS: Discourse Representation with a Radically New Ontology

In the post-Montagovian world of formal semantics, DRT (Kamp 1981, Kamp et al. 2011)—which has offered a revolutionary solution to the resolution problem of (“donkey”) anaphora and attractive visual representations for discourse meaning—is often criticized from “inside” as well as from “outside”, considerably weakening its

legitimacy. The internal criticism comes from the world of the dynamic model-theoretic semantics, from the Amsterdam School (e.g. Groenendijk *et al.* 1996), and pertains to the (mathematically unquestionable) eliminability of exactly this attractive visual representation, insisting on “Montague’s heritage”. The external criticism comes from the Proof-Theoretic School (e.g. Francez–Dyckhoff 2011); they point at the dubious status and construction of possible worlds.

We claim that  $\mathfrak{Re}ALIS$  (see <http://lingua.btk.pte.hu/realispapers>, Alberti-Kleiber 2012, Alberti-Károly 2012)—while considerably relying on the representationalism of DRT in the course of solving a wide range of linguistic problems in order to maximally exploit and develop the excellent facilities provided by this representationalism—offers exactly the radical ontological innovation which lies with the elimination of the above-mentioned two dubious levels of representation, referred to as I and III below:

- (1) Components / levels of representation in DRT:
  - I. DRS: the semantic representation of sentences constituting coherent texts
  - II. Model of the external world (for extensional interpretation)
  - III. Possible worlds (for intensional interpretation)
  - IV. Interlocutors’ information states

$\mathfrak{Re}ALIS$  embeds representational levels I and III—more exactly, their relevant content—in the representation of information states (IV), relying on the stance that, as interlocutors obtain information through discourses, their information states are worth regarding as gigantic, lifelong, DRSS. An information state has a double nature: it functions as a “representation” in the above regard while it is used as “what is to be represented” in the interpretation of the intensional sentence types (2e-g) below: it also depends on Mary’s information state if these sentences are true, in contrast to sentences (2a-d), the truth values of which only depend on facts of the external world. Before entering into details, we must note about the aforementioned “double nature of information states” that modern set theory exactly relies on a similar idea: Sets and their elements must not be mixed up; this does not mean, however, that a set could not serve as an element of another set.

- (2)a. Joe is hungry.    b. Joe is indignant.    c. Joe is hungry and indignant.
- d. If Joe is hungry, he is mostly indignant.    e. Mary knows that Joe is hungry.
- e'. Mary knows that Joe is indignant.    e". Mary knows that Joe is hungry and indignant.
- e'. Mary knows that Joe is indignant.
- f/g. Mary knows / found that if Joe is hungry, he is mostly indignant.

$\mathfrak{Re}ALIS$  carries out the task of interpreting (2a-d) in the model-theoretic way, used the logically closed status of the infinite model of the external world (II) while it carries out the “internal” part of the task of interpreting (2e-g) essentially according to the method of Proof Theory (e.g. Francez–Dyckhoff 2011): a step-by-step

procedure of accommodation should be executed over the finite universes of certain information states.

Finally, we will illustrate the descriptive and explanatory power of  $\mathfrak{R}eALIS$  by sketching the interpretation of sentence (3a), featuring *realize*, which is also a factive verb, similar to *know* (2). Hence, it is a precondition of interpreting the sentence as true (or rather, as “well-formed”) that the Evening Star should coincide with the Morning Star in (the model of) the external world. This means that the entity referred to as the Evening Star by the given astronomer should be the same entity he refers to as the Morning Star. In the approach of  $\mathfrak{R}eALIS$ , this relation is captured formally as demonstrated in (3b) below: the internal entity  $r_{\text{EveningStar}}$  should be anchored to the same external entity as the internal entity  $r_{\text{MorningStar}}$ . The astronomer himself is not (necessarily) aware of the co-anchoring of the two internal entities at his disposal (in his appropriate worldlet); but the fact of co-anchoring is an external requirement due to the factive character of the verb. Two further requirements to be satisfied in order for sentence (3a) to qualify as true concern two information states of the astronomer at different points of time, independently of the external world: what is to be checked is whether there is a “same-as” relation between the internal entity  $r_{\text{EveningStar}}$  and the internal entity  $r_{\text{MorningStar}}$  in the one information state (3b') while they do not stand in the “same-as” relation in the other one (3b'').

(3) The interpretation of *realize* and the philosophers' *Venus*-problem

a. An ancient astronomer realized that the Evening Star is the same as the Morning Star.

b.  $\alpha(r_{\text{EveningStar}})$  is-the-same-as  $\alpha(r_{\text{MorningStar}})$  (since  $u_{\text{Venus}}$  is-the-same-as  $u_{\text{Venus}}$ )

b'. It does not hold that  $r_{\text{EveningStar}}$  is-the-same-as  $r_{\text{MorningStar}}$  at  $\tau$  in the astronomer's worldlet of astronomic hypotheses

b''. It holds that  $r_{\text{EveningStar}}$  is-the-same-as  $r_{\text{MorningStar}}$  at  $\tau'$ , which is a later point of time in the astronomer's worldlet of astronomic hypotheses

All in all, three competing world(let) models should be considered simultaneously (“prism effect”), and three entities—an external one and two internal ones—should be inspected. As the three models are all parts of the one complete model of the history of the external world and all internal reflections associated with it, in this matrix model (3b-b'') can all be checked.

## References

- Alberti, Gábor, and Márton Károly. 2012. “Multiple Level of Referents in Information State.” *LNCS7181*: 349–362.
- Alberti, Gábor, and Judit Kleiber. 2012. “Where are Possible Worlds? (Arguments for  $\mathfrak{R}eALIS$ ).” *Acta Linguistica Hungarica* 59 (1-2): 3–26.
- Francez, Nissim, and Roy Dyckhoff. 2010. “Proof-theoretic semantics for a natural language fragment.” *Linguistics and Philosophy* 33 (6): 447–477.

- Groenendijk, Jeroen, Martin Stokhof, and Frank Veltman. 1996. "Coreference and Modality." in *The Handbook of Contemporary Semantic Theory*, 179–213. Oxford: Blackwell.
- Kamp, Hans, Josef van Genabith, and Uwe Reyle. 2011. "Discourse Representation Theory." In *Handbook of Philosophical Logic* 15: 125–394. Berlin: Springer.

## Muhsina Alleesaib

Université Lille III / SFL, France  
 muhsina.alleesaib@sfl.cnrs.fr

### The reference of *bann* + NP in Mauritian Creole

Linguists working on Mauritian Creole assumed that bare nouns are underspecified for number and that the functional item *bann* may be used to force a plural interpretation (cf. Guillemin 2011, Syea 2012). *Bann* is accordingly analyzed as occupying Number Phrase, sometimes in Spec or in Head position. *Bann* A B means  $|A \cap B| > 1$ .

In DPs determined by the anaphoric DP-final determiner *la*, *bann* triggers a plural reading (*madam la* = the woman vs. *bann madam-la* = the women). A careful study of the syntax of determinerless DPs containing *bann* (shows some additional properties that need to be explained by empty categories such as a null determiner. In what follows, *bann-NP* is shorthand for *bann* + its NP complement.

In eventive sentences, *bann-NP* is ambiguous between a presuppositional reading and an existential reading.

- (1) Bann zanfan pe zwe dan lakour.

BANN child PROG play in yard 'Children are playing in the yard.'

The existential reading of 'bann zanfan' comes about as the noun introduces a predicate and a variable which undergoes existential closure inside the VP. (following Diesing 1992).

The second reading of *bann-NP* is presuppositional and maximal.

- (2) Bann etidian dan lasal 159 inn fini fer legzame.

BANN student in room 159 PERF finish do exam

'The students in room 159 have finished taking the exam.'

Sentence (2) presupposes that there are students in room 159 and asserts that the students as a group have finished taking an/the exam. This reading is triggered by a null determiner that is responsible for a maximal set reading as well as a presuppositional reading. There is evidence to suggest that *bann-NP* may either denote a group or a sum depending on the context.

When 'bann NP' is combined with an individual-level predicate as in (3), the sentence ascribes a property to a set of individuals.

(3) Bann tourtrek per sat.

BANN dove fear cat

(i) Generic 'Doves fear cats.' or (ii) Non-generic 'The doves fear cats.'

*Bann*-NP may also occur in habitual sentences. The issue is whether *bann*-NP is better analyzed as the proper name for a Kind (Carlson 1977) or as indefinites introducing a predicate and a variable.

One piece of evidence against the Kind analysis comes from the marginality of a Kind reading for *bann*-NP in object position (*Bann tourtrek per bann sat* ? 'Doves fear the cats'.)

*Bann*-NP is also marginal when combined with Kind-selecting predicates.

(4) ?Bann kestrel byen rar.

BANN kestrel very rare

Bann-NP is also incompatible with a prototype denotation.

#### Selected references:

- Carlson, Greg, 1977. A unified analysis of the English bare plural. *Linguistics and Philosophy* 1, 413-456.
- Corbett, Greville, 2000. *Number*, Cambridge : Cambridge University Press
- Corblin, Francis, 2002. *Représentation du discours et sémantique formelle. Introduction et applications au français*. Paris : Presses Universitaires de France.
- Guillemin, Diana, 2011. *The syntax and semantics of a determiner system : a case study of Mauritian Creole*. Amsterdam/Philadelphia : John Benjamins
- Heim, Irene & Kratzer, Angelika, 1998. *Semantics in generative grammar*. Oxford: Blackwell
- Syea, Anand, 2012. *The syntax of Mauritian Creole*. London: Bloomsbury Studies in Theoretical Linguistics.

**Grzegorz Aperliński<sup>1</sup> and Aleksandra Leończyk<sup>2</sup>**

Adam Mickiewicz University<sup>1</sup>, University of Szczecin,<sup>2</sup> Poland  
gaperlinski@wa.amu.edu.pl, leo.aleksandra@gmail.com

### The role of language proficiency in the perception of L2 voicing contrasts

English and Polish discriminate between voiced and voiceless pairs of consonants, mostly on the basis of voice onset time (VOT). English is an aspirating language (Lisker & Abramson 1964), whereas Polish is a voicing language (Keating 1980). Taking this into consideration, one might conclude that English voiced and Polish

voiceless obstruents should sound the same to a naïve Polish listener. A previous study on the perception of voicing revealed that when English voiceless and voiced obstruents were acoustically manipulated to have the same VOT, Polish listeners identified 19% of English voiced obstruents as voiceless, while English listeners did so only in 1.7% cases (Aperliński 2012). While Polish listeners were shown to differ significantly from English listeners in terms of voicing perception, no difference was found for Polish listeners with different proficiency levels (beginner vs. advanced). The authors believe that the observed tendency might not have been necessarily due to the lack of differences between the groups but due to methodological considerations, i.e., the use of self-reported proficiency.

The current study aims at further exploring the L2 perception of voicing with an improved method for testing the participants' proficiency. Over 60 participants divided into two groups differing significantly in their language proficiency (tested with lexical proficiency test) performed an identical task to that in Aperliński (2012), i.e., forced-choice identification task on 21 sets of English minimal pairs, e.g., pit/bit. Voiceless tokens were acoustically manipulated so that both words in a set had the same short lag VOT. Stricter control over participants' language skills did provide better insight into the role of language proficiency. Highly proficient Polish listeners identified significantly less voiced obstruents as voiceless (10.9%) than non-proficient Polish listeners (21.6%), thus displaying tendencies more similar to those of native speakers of English. The observed results might be interpreted as evidence of L2 phonology acquisition.

## References

- Aperliński, G. 2012. Is VOT enough? (Paper presented at the VIIIth International Conference on Native and Non-native Accents of English, 6-8 December 2012.).
- Keating P. A. 1980. A Phonetic Study of a Voicing Contrast in Polish [Unpublished Ph.D. dissertation, Brown University].
- Lisker, L. and Abramson, A. S. 1964. A cross-language study of voicing initial stops: Acoustic measurements. *Word* 21: 384-422.

## Anita Auszmann and Tilda Neuberger

Eötvös Loránd University, Hungary

Research Institute for Linguistics, Hungarian Academy of Sciences, Hungary

auszmannanita@gmail.com, neuberger.tilda@nytud.mta.hu

### Age- and gender-related differences in formant structure during the stabilization process of vowels

The stabilization process of the vowels is a decisive phase of language development even on later stages of the acquisition. The acoustic structure of the vowels, as a consequence of articulation, is influenced by numerous factors such as age, physical status or gender of the speaker (Huber et al. 1999; Perry 2001). Since the length of the vocal tract determines the overall patterns of formant frequencies, these patterns change with age, and depend on gender (Fant 1966; Whiteside & Hodgson 2000; Vorperian et al. 2005). It has been found that the values of the formant frequencies are lower in boys' than in girls' speech (e.g., Lee et al. 1999). The present study aims to investigate the stabilization process of vowel production, particularly in terms of age and gender.

Speech material consisted of recorded spontaneous speech samples of eighty 7-, 9-, 11- and 13-year-old typically developing, Hungarian-speaking children. Twenty children (10 boys and 10 girls) from each age group talked about their family, school and free time activities. We selected a one-minute sample from each recording for analysis. The data set contained more than 15,000 tokens of manually measured vowels. The recordings were annotated and acoustic-phonetic measurements were conducted using Praat 5.3 software (Boersma & Weenink 2011). We analyzed the fundamental frequency (F<sub>0</sub>) of the children's speech, the duration, and the first two formants (F<sub>1</sub>, F<sub>2</sub>) of the nine Hungarian vowels. We compared the children's values to adults' values (from previous data: Bóna 2014; Gósy & Beke 2010). Statistical analysis was conducted using SPSS 17.0 software.

Results confirmed that there were large individual differences in the pronunciation of the vowels irrespective of age and gender. However, there was evidence for maturation in fundamental frequency and vowel duration across ages and gender. 'Age' proved to have a significant main effect ( $p < 0.001$ ) on the F<sub>1</sub> values in the case of [ɔ] [a:] [ɛ] [i] [o] and [ø] vowels and on the F<sub>2</sub> values in the case of [ɛ] [e:] [i]. 'Gender' showed to have significant main effect on the F<sub>1</sub> values in the case of [ɔ] [a:] [ɛ] [e:] [o] and [ø] vowels, and on the F<sub>2</sub> values in the case of [ɛ] and [i]. Approaching the age of 13, 'gender' had less significant main effect on the formant frequency values. The results showed that the vowels pronounced by 11-

year-old children are still different from that of adults, while their pronunciation becomes similar to that of adults at the age of 13.

Our hypothesis that formant structures of the 13-year-old children's vowels would converge to adult patterns (based on the literature and the pilot study) was supported by the data. Even on later stages of language acquisition the differences between children's and adults' articulation are significant. Differences in both fundamental frequencies and formant values between girls and boys could be explained by several factors, like physiological, sociophonetic, cultural and/or stylistic factors.

### References

- Boersma, P., and Weenink, D. 2011. Praat: Doing phonetics by computer (Version 5.3). [Computer program]. retrieved 2 April 2013 from <http://www.praat.org/>
- Bóna, J. 2014. Női beszéd – férfi beszéd a fonetikai vizsgálatok tükrében. (unpublished manuscript)
- Fant, Gunnar 1966. A note on vocal tract size factors and non-uniform F-pattern scalings. *Speech Transmission Laboratory Quarterly Progress & Status Reports*, Royal Institute of Technology, Stockholm, 22–30.
- Gósy, M. – Beke, A. 2010. Magánhangzó-időtartamok a spontán beszédben. *Magyar Nyelvőr* 134: 140–165.
- Huber, Jessica L., Stathopoulos, Elaine T., Curione, Gina M., Ash, Theresa A., and Johnson Kenneth 1999. Formants of children, women, and men: the effects of vocal intensity variation. *Journal of the Acoustical Society of America* 106 (3): 1532–1542.
- Lee, Sungbok – Potamianos, Alexandros – Narayanan, Shrikanth 1999. Acoustics of children's speech: developmental changes of temporal and spectral parameters. *Journal of the Acoustical Society of America* 105 (3): 1455–1468.
- Perry, Theodore L. – Ohde, Ralph N. – Ashmead, Danieal H. 2001. The acoustic bases for gender identification from children's voices. *Journal of the Acoustical Society of America* 109 (6): 2988–2998.
- Vorperian, H. K., Kent, R.D., Lindstrom, M.J., Kalina, C.M., Gentry, L.R., and Yandell, B.S. 2005. Development of vocal tract length during early childhood: a magnetic resonance imaging study. *Journal of the Acoustical Society of America* 117 (1): 338–350.
- Whiteside, Sandra P., and Hodgson, Carolyn 2000. Some acoustic characteristics in the voices of 6- to 10-year-old children and adults: A comparative sex and developmental perspective. *Logopedics Phoniatrics Vocology* 25 (3): 122–132.



## **Elena Babatsouli and David Ingram**

Arizona State University

ebabatsouli@yahoo.com, david.ingram@asu.edu

### **Cross-linguistic performance in a bilingual child's speech**

A multi-level approach is proposed for cross-linguistic performance comparisons in bilingual child speech. This is deemed necessary in order to make fair comparisons since, generally, phonetic inventories and phonotactic rules differ across languages. Furthermore, the approach elucidates issues pertaining to markedness universals and to separation of the phonological systems at many levels: the segment, the syllable, the word, the utterance and the proportion of consonants to vowels. The approach is applied to a bilingual child's speech performance in English and Greek at age 2;7. The child's speech was digitally recorded on a daily basis for a month during speech interactions with the first author and was subsequently phonetically transcribed in IPA and coded in a Computerized Language Analysis - CLAN database. Speech samples were also transcribed by two independent phoneticians and inter-rater reliability tests were performed. The proportion of consonants to vowels in the child's targeted speech is 1.3 in English and 1.0 in Greek reflecting the fact that English is a stress timed language while Greek is a syllabic language. Moreover, 80% of the targeted words are monosyllabic in English while only 38% in Greek, as the Greek language has few monosyllabic words that are mostly function words. The child's vocabulary comprises 317 words in English and 540 words in Greek with the average number of words per utterance being 2.0 in English and 3.7 in Greek, showing that English is the weaker language in the child's bilingualism due to limited L2 English input in an exogenous environment. Despite this, cumulative consonant correctness in both languages is 60% and the performed phonological mean length of utterance is 4.3 in English and 4.8 in Greek, falling in stage III of phonological development coinciding with the grammatical stage. Phonological word proximity is also the same in both languages, at 80%. Words with singleton consonants are produced correctly at 50% in each language, five times more correctly than words with consonant clusters. Monosyllabic words are produced much more correctly in Greek than in English as consonant clusters in coda position are not permitted in the Greek language. Performance of individual consonants in both languages quantitatively supports universal markedness hierarchies both in terms of acquisition level and substitutions. Consonant singletons and clusters that are not permitted in the Greek language are produced correctly by the child in English, such as onset sm, sn and coda m, t, d, z, l, ld, nt, ts, ps, ns. Similarly, word initial ks and ps that are not permitted in English are produced correctly by the child in Greek.

Conclusively, the multi-level approach adapted shows that a language in a child's simultaneous bilingualism can be the weaker language in terms of vocabulary size and utterance length but as strong phonologically as the other language. This implies that the developing phonological system of the so-called stronger language without slowing down enhances the development of the phonological system of the weaker language. The approach and results of the present study may guide future evaluations of cross-linguistic performance in child and adult bilingual speech.

Štefan Beňuš<sup>1,2</sup> and Juraj Šimko<sup>3</sup>

<sup>1</sup>Constantine the Philosopher University in Nitra, Slovakia

<sup>2</sup>Institute of Informatics, Slovak Academy of Sciences, Bratislava, Slovakia

<sup>3</sup>Institute of Behavioural Studies, University of Helsinki, Finland

sbenus@ukf.sk, juraj.simko@helsinki.fi

## F0-peak realization in Lombard speech

Ample literature on the alignment of F0 targets to the acoustic and articulatory landmarks of segmental structure shows that this alignment is language-specific and linguistically meaningful since it cues differences in focus, and other aspects of informational structure. Lombard speech is an umbrella term for the response people have when they speak in noisy environment (Lombard 1911). This “speaking up” is most commonly associated with greater overall intensity, F0 range, temporal lengthening, some of which facilitates speech intelligibility by increasing signal-to-noise ratio. It is clear that Lombard speech affects the realization of intonational targets, but it is less clear if the observed differences arise from changes to the intonational phonological structure, e.g. a different pitch accent, changes in the phonetic realization of this underlying structure, or a combination of the two. For example, Vainio et al. (2012) reported differential effects of noise on F0 focus realization, or Welby (2006) discussed diverging results on the effect of noise on (phonological) F0 target alignment to segmental structure. The goal of this paper is to explore the nature of F0 peak scaling and alignment in multiple Lombard speech conditions to inform subsequent formal modeling. Most speech is produced in some noise and analyzing Lombard speech fits with the conference theme as it helps us understand how language use relates to linguistic structure.

As a part of a larger study, acoustic and articulatory data from repetitions of 12 Slovak stimuli utterances in blocks of various noise conditions were recorded. This study analyzes single speaker's renditions of the identical first clause “*Rozdelil to*” of the prompts produced in 6 blocks of dB(A) SPL babble noise: two blocks of

60dB (60-1, 60-2), one block with 70dB (70), two blocks with 80 dB noise with the second one simulating a communication with a nonnative interlocutor who was present and visually interacted with the subject (80, 80-nn), and a reference condition with no noise (0). In total, 376 tokens roughly equally divided among these conditions were produced with a H-target in the first syllable and L-boundary, and were labeled for the acoustic onset and offset of /z/.

The statistical analysis of the patterns shown in the figures on p.2 reveals the following: 1) Both energetic masking with babble noise and communicatively simulated hyper-articulation systematically raise F0 peak; 2) Although increased noise levels might suggest an underlying rising LH pitch accent over simple (H) one in the reference condition (early elbows), F0-peak alignment within the first syllable is stable in different noise conditions and first syllable durations, suggesting identical phonological analyses of intonation in normal and hyper-articulated Lombard speech; 3) A significant carry-over effect for the 60dB conditions was observed since 60-1 block was preceded by the reference no-noise condition (0) whereas 60-2 block by the most hyper-articulated one (80nn); 4) Segmentally induced F0 perturbations systematically vary with noise levels producing thus intonational hyperarticulation of each syllable, but for foreign directed speech (80nn) the stressed syllables are affected more than unstressed ones. We discuss these results in relation to the goals outlined.

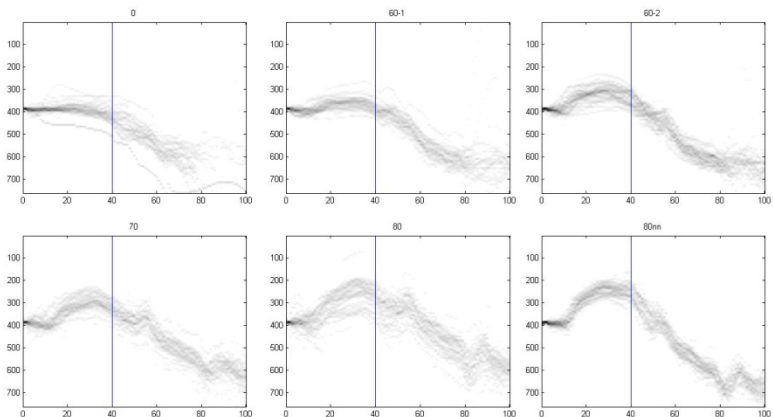


Fig. 1 normalized interpolated F0 curves of “Rozdelil to” aligned to the z-offset (vertical line at 40) using the bit-map clustering method (Edlund et al).

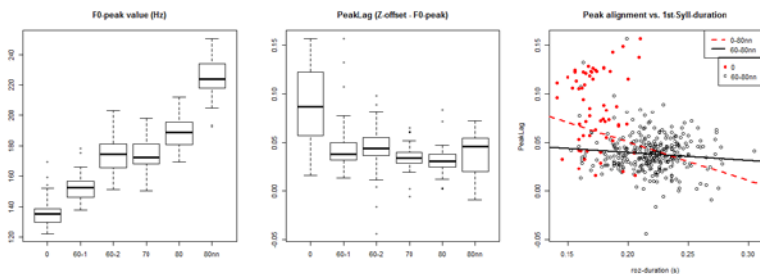


Fig. 2 Scaling of F0 peak (left), its alignment to the z-offset (mid), and the relationship between peak alignment and first syllable duration (right).

## References

- Edlund, Jens, Mathias Heldner, and Antoine Pelce. 2009. Prosodic features of very short utterances in dialogue. *Nordic Prosody - Proceedings of the Xth Conference*, pp. 56–68.
- Lombard, Etienne. 1911. Le signe de l'élevation de la voix. *Ann. Maladies Oreille, Larynx, Nez, Pharynx* 37(101-119): 25.
- Welby, Pauline. 2006. Intonational differences in Lombard speech: Looking beyond F0 range. *Proceedings of the 3rd International Conference on Speech Prosody*, pp. 763-766.

## Lolita Bérard

Laboratoire LaTTiCe & Université Paris 3 Sorbonne Nouvelle, France  
 lolita.berard@gmail.com

## Long Distance Dependency and processing constraints

Long distance dependency is realized when a dependent of an embedded verb (*who-is\_calling*) precedes the host-verb, or bridge verb (*think*): “**Who** do you *think* he is **calling?**”. This construction has been the subject of numerous studies and all of them conclude that constraints regulate its employment. The possibilities are not as extensive as for the construction “You think he is calling N”. Based on the seminal work of Ross 1967 and Chomsky 1977, mainstream generative grammar has favored syntactic solutions relying on the notion of “island” syntactic constraints on embedded constructs. Since the beginning, however, this formal approach has been challenged by functional ones providing evidence that the constraints were, at least in part, of semantic, pragmatic or processual nature (Erteschik-Shir 1973, Godard 1980, Ambridge & Goldberg 2008, Featherston 2005). Hofmeister & Sag (2010) experiment that some manipulations affect the ‘naturalness’ of island constructions. Processing difficulty increases or decreases if the elements of the construction are

specific/generic, frequent/not, etc. This study is not based on experimental data but on corpus. The corpus consists of 12M words, with 3M of spontaneous speech (conversations, interviews, monologues) and 9M of written texts (literature, newspapers, scientific, political, juridical writings, forums and blogs, small ads). Only 229 examples have been extracted with a semi-automatic procedure: a regular expression with lexical words boundaries and manual sorting. We will show that the processing is facilitated by a 'simple' construction of the "bridge" (Erteschik-Shir 1973).

**Low syntactic weight of the bridge:** In all the attested examples, there are few elements between the interrogative-relative pronoun and the completive clause. The bridge is mostly composed of the subject and the verb (few objects and adjuncts), in a simple form: the subject is pronominal; the verb is in a present indicative active form, without negation or modalization. Counted in topological distance, the average size of the bridge totalized 2.3 words (2 words in 79% of occurrences) or 3 syllables in spoken corpus. The memory is not too solicited. All completive verbs can be a bridge verb if the bridge is syntactically reduced and semantically reduced to a modal interpretation.

**Syntactic connection:** The syntactic connection can get around the difficulty of the hierarchical distance. In 69.4% of occurrences, the complement in front cannot be an object of the bridge verb (*\*Avec qui veux-tu? \*Whom do you want?*). The incompatibility involves the wait of the following verb (*Avec qui veux-tu que je m'entretienne? Whom do you want me to speak to?*) and avoids a false connection and next a reanalyse.

**Correlation between the topological distance and the syntactic connection:** Occurrences are predominantly non-ambiguous; those that are ambiguous have got a short bridge which reduces the time for false connection (if it has time to be made). Here is an instance of an ambiguous example (2 words and 2 syllables): *Otto Kranz est loin de tout contrôler, contrairement à ce qu'il souhaite que vous pensiez. (Otto Kranz is far from any control, contrary to what he wants you to think)*. It would be possible to connect "ce qu'il souhaite" (what he wants).

In fact, longer the bridge is, more unambiguous the formula is 1). Above 5 syllables or 4 words, all the examples are unambiguous. Here is the occurrence with 13 syllables and 5 words: *En application du paragraphe 11 [...], la Commission indique ci-après, pour chaque sujet, les points sur lesquels il pourrait être particulièrement intéressant que les gouvernements expriment leurs vues [...]. (Pursuant to paragraph 11 [...] the Commission stated below, for each subject, the points on which it could be particularly interesting that governments express their views)*. The connection between "être intéressant" (be interesting) and "sur lequel"

(on which) would not be grammatical. Even if the bridge is long, the listener can't do a false connection.

**Conclusion:** In reel example from corpus, the complexity of the construction is counter by the syntactical simplicity (weight). Moreover, the cognitive process limits the complexity of the construction to one parameter: the topological distance or the syntactic connection between the object in front and its verb.

#### References:

- Ambridge, Ben, and Adele Eva Goldberg. 2008. "The island status of clausal complements: Evidence in favor of an information structure explanation." *Cognitive Linguistics* 19 (3): 357–389.
- Chomsky, Noam. 1977. "On WH-movement." In *Formal syntax*, edited by Peter Culicover, Thomas Wasow, and Adrian Akmajian, 71-132). New York: Academic Press.
- Erteschik-Shir, Nomi. 1973. *On the nature of island constraints*. (Thesis). Massachusetts Institute of Technology, Cambridge. Accessed January 13, 2014.  
<http://dspace.mit.edu/handle/1721.1/12991>
- Featherston, Samuel. 2005. "Bridge verbs and V2 verbs—the same thing in spades?" *Zeitschrift für Sprachwissenschaft* 23 (2): 181–209.
- Ford, Marilyn, and Joan Bresnan. 2010. "Studying syntactic variation using convergent evidence from psycholinguistics and usage." *Research Methods in Language Variation and Change*. Accessed January 13, 2014.  
<http://www.stanford.edu/%7Ebresnan/ford.bresnan.2010.doc>
- Hofmeister, Philip, and Ivan Andrew Sag. 2010. "Cognitive constraints and island effects." *Language* 86 (2): 366–415.
- Ross, John Robert. 1967. *Constraints on variables in syntax*. (Thesis). Massachusetts Institute of Technology. Dept. of Modern Languages and Linguistics. Accessed January 13, 2014.  
<http://www.eric.ed.gov/PDFS/ED016965.pdf>

## Marine Beridze and Zaal Kikvidze

A. Chikobava Institute of Linguistics, Tbilisi State University, Georgia  
marineberidze@yahoo.com; zaalk@yahoo.com

### Troubles with ISO 639 Standards: the Case of a Kartvelian Corpus

The linguistic portrait of Georgia is represented by all the Kartvelian (South Caucasian) languages and their numerous dialects. Therefore, the Georgian Dialect Corpus is an attempt to create an electronic portrait of the Georgian lingua-cultural domain. With its structure, the corpus allows an opportunity to completely manifest the Georgian linguistic reality; moreover, the corpus design can be applied for the description of any multi-lingual area. The corpus includes the potential opportunity

to describe both territorial dialects and various synchronic and diachronic varieties. The linguistic portrait of Georgia is described by means of regional and linguistic properties: region \_ district \_ village; language \_ dialect//variety \_ sub-variety.

Therefore, ISO 639, as a set of standards concerned with representation of language names (glossonyms), is obviously a useful tool for designers of a corpus of dialectal texts. Its initial version was later abolished, and presently, there is a new, more appropriate system of standards called ISO 639. The standard has six parts of which the first three are for names of individual languages; ISO 639-3 presents a wider spectrum of languages, albeit failing to cover its most obvious deficient character; the occurrence of an individual code for uncoded languages (**mis**) seems to be a certain confession of the aforementioned shortcoming. Besides, one should note that the substandard presents Georgian (**kat**) and Judeo-Georgian (**jge**) as different languages, which is totally inconsistent.

As long as languages occur as their individual varieties (various kinds of lects), the issue of standardization of their names was brought forth. For the sake of that, another substandard ISO 639-6 was introduced. As different from other substandards of ISO 639, it is not just a listing of codes; rather it provides information about inter-dependencies between language varieties. The system consists of 4-letter codes. Some authors have already made their points helping to realize what is irrelevant about it: “we find the Tushian (‘Tush’) dialect of Georgian (TXSH) as a child of KATS, i.e. ‘Georgian spoken’, in its turn depending on KAT = ‘Georgian’, which is a child of GGNC = ‘Georgian cluster’ and a grand-child of CCNS = ‘South Caucasian’. On the other hand, Georgian dialects such as Imeretian (‘Imeruli’, IMRI), Rachian (‘Rachuli’, RCLI), Gurian (‘Guruli’, GRLI) or sociolects such as ‘Judeo-Georgian’ (JGE) are direct children of GGNC (and accordingly, siblings of the ‘Georgian’ standard language, KAT” (Gippert 2012, 21-22). Moreover, the substandard provides no codes for the Georgian dialects like Meskhetian, Imerkhevan, etc. It implies that they can be hardly applied for annotation purposes.

The given cases present very salient inconsistencies, being, unfortunately, part of a host of similar ones within the ISO 639 coding system of language names, both with respect to Kartvelian languages in particular, and the Caucasian family at large. It is in no way crucial which language variety is presented with which code, but rather the fact that the ISO 639-6 substandard provides an irrelevant classification, preventing it from being consistently applicable to various kinds of corpora.

The paper puts forth some recommendations for the system of codes for Kartvelian languages and their dialects in order to make it more consistent with the actual situation and, thus, applicable to corpora.

## Reference

Gippert, Jost. 2012. "Language-specific encoding in endangered language corpora." In *Potentials of Language Documentation: Methods, Analyses, and Utilization*, edited by Frank Seifart, Geoffrey Haig, Nikolaus P. Himmelmann, Dagmar Jung, Anna Margetts, & Paul Trilsbeek, 17–24. Manoa: University of Hawai'i Press.

## Hana Bogdanová

Kyushu University, Graduate school of Social and Cultural Studies, Japan  
hanabogdanova@yahoo.com

### On Japanese non-past morpheme RU

This paper investigates the Imperfective qualities of the Japanese morpheme RU. As of after Kudo (1995), Japanese tense-aspect marking morphemes are taken in two primal oppositions, past/ non-past, Perfective/ Imperfective (Table 1).

Table 1: Tense-aspect system in Japanese (Kudo 1995, 36)

tense/aspect	Perfective	Imperfective (or continuation)
past	TA	TEITA
non-past	RU	TEIRU

The aim of the paper is to examine the aspectual nature of activities and states of A class Japanese verbs. Specifically, the paper researches on the ability of RU to co-occur with Perfective, as well as Imperfective, in activities and states that are understood to take place only after the Speech Time. Further, it investigates the difference between the RU and TEIRU Imperfective in Present and Actual Present opposition.

This corpus-based paper uses West Slavic languages (namely Slovak language) as a reference language, since it has profound Perfective/ Imperfective opposition system, both in the Past and Future tense.

The objective of this paper is to contribute to the current discussion on functions and thus classification of morpheme RU. Furthermore, it is to contribute to the ongoing discussion on grammatical, non-lexical, imperfectivization and perfectivization in Japanese language.



## References

- Ivanová, M. Aspektuálnosť a modálnosť v slovenčine [Aspect and Modality in Slovak language]. Prešov: Pulib, 2009. ISBN 978-80-555-0052-2
- Ueno, Z. Nihongo kenkyuu no 12 shou [12 Charters on Japanese studies].Tokyo: Meijishoin, 2010
- Kudo, M. Asupekuto • tensu taikai to tekusuto [Aspect-Tense system and Text]. Tokyo: Hitsuji Shobo, 1995
- Suda, Y. Genzai nihongo no asupekuto ron [ Studies on Aspects of Modern Japanese]. Tokyo: Hitsuji Shobo, 2010
- Teramura, H. Nihongo no shintakusu to Imi II [Japanese Syntax and Meaning II]. Tokyo: Kuroshio shuppan, 1984

## Jadwiga Bogucka

Adam Mickiewicz University Poznań, Poland  
jbogucka@wa.amu.edu.pl

## Feature resolution and agreement with coordinated subjects in Polish

This paper focuses on single conjunct agreement with both pre-verbal and post-verbal subjects in Polish and provides an account for the generalization that such an agreement arises mainly with mass and abstract nouns, within the Agree framework of Chomsky (2001). When coordinated subjects appear post-verbally, Polish grammar has the option of agreeing with the coordinated phrase as a whole or with the closest conjunct (Citko 2004, Willim 2012). With pre-verbal subjects, however, agreement depends on the features of the coordinated phrases. Whenever two personal or concrete countable nouns are conjoined, the verb must appear in the plural resolved form. If two concrete mass nouns are conjoined, singular agreement becomes possible when both conjuncts are of the same gender or the verb does not show gender agreement:

- (1) Kurz i pył podniósł/podniosły się z nawierzchni  
dirt<sub>M.SG</sub> and dust<sub>M.SG</sub> rose<sub>M.SG/NVIR.PL</sub> self from surface  
'Dust and dirt rose from the surface'  
(Zbróg 2012: 100)

Singular agreement is also available with two coordinated abstract nouns, both when the verb shows gender agreement and when conjuncts have different genders:

- (2) Głód i nędza zmusiła ją do kradzieży  
hunger<sub>F.SG</sub> and poverty<sub>F.SG</sub> forced<sub>F.SG</sub> her to theft  
'Hunger and poverty forced her to steal'

Availability of singular agreement in the post-verbal context stems from the fact that T probe has two equidistant goals – either the maximal projection, or the first conjunct in the specifier position (van Koppen 2005). This option is unavailable when the subject moves to its canonical position – first conjunct move, and the Probe has to agree with the coordination phrase as a whole. I propose that coordination phrase ( $\bar{\alpha}P$ ) can be optionally specified for all  $\phi$ -features, depending on the type of nominals involved. Following Willim (2000) and Bošković (2009, 2010), I assume that semantic gender on personal nouns is an interpretable feature, while grammatical gender is uninterpretable. Only uninterpretable gender can be optionally specified on  $\bar{\alpha}P$ . Conjunction of personal and animate nouns, with interpretable gender and number, will always result in plural number feature being computed on the coordination phrase and plural agreement on the verb. Coordinated mass nouns of the same gender can either bear plural number and resolved gender, or can project the underspecified number feature (Willim 2006) and gender common to both conjuncts, resulting in singular agreement. When coordinated phrases have two different gender features, the  $\bar{\alpha}P$  is obligatorily specified as plural to ensure resolution of the conflicting features. Coordinated abstract nouns, however, can be optionally specified both for number and for gender. When conjuncts have different genders, the coordination phrase is specified for person, but underspecified for number and gender. If T probes for gender (2), it targets the coordination phrase but it cannot value its gender features against it and the Agree operation fails. Gender is then valued post-syntactically (Marušič et.al. 2012) with the linearly closest conjunct.

## References

- Bošković, Željko. 2009. “Unifying First and Last Conjunct Agreement”, *Natural Language and Linguistic Theory* 27: 455–496
- Bošković, Željko. 2010. “Conjunct-Sensitive Agreement: Serbo-Croatian vs Russian”, in: Gerhild Zybatow, Philip Dudchuk, Serge Minor and Ekaterina Pschehotskaya (eds.), *FSSL. Proceedings of FDSL 7.5*. Frankfurt am Main: P.Lang. 31–48
- Chomsky, Noam. 2001. “Derivation by Phase”, in: Michael Kenstowicz (ed.), *Ken Hale: a life in language*, 1–52. Cambridge: MIT Press.
- Citko, Barbara. 2004. “Agreement Asymmetries in Coordinate Structures”, in: Olga Arnaudova, Wayles Browne, Maria Luisa Rivero, and Danijela Stojanović (eds.), *Formal Approaches to Slavic Linguistics: the Ottawa meeting 2003*. Ann Arbor: Michigan Slavic Publications, 91–108.
- Koppen, Marjo van. 2005. *One Probe – Two Goals: Aspects of agreement in Dutch dialects*. Dissertation, University of Leiden. LOT-publications 105
- Marušič, Franc, Andrew Nevins, and Bill Badecker. 2012. “The Grammars of Conjunction Agreement in Slovenian”, Unpublished manuscript, available at: <http://ling.auf.net/lingbuzz/001131>

- Willim, Ewa. 2000. "On the Grammar of Polish Nominals" ", in: Roger Martin, David Michaels, and Juan Uriagereka (eds), *Step by step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, Cambridge: MIT Press, 319-346.
- Willim, Ewa. 2006. The Semantic and Morphosyntactic Underpinnings of the Distinction between Count and Mass Nouns in Polish. *Studies in Polish Linguistics* 3: 69-112.
- Willim, Ewa. 2012. "Concord in Polish Coordinate NPs as Agree", in: M. Ziková and M. Docekal, (eds.), *Slavic Languages in Formal Grammar*. Proceedings of FDSL 8.5, Brno 2010. Frankfurt am Main: Peter Lang, 233-253.
- Zbróg, Piotr. 2012. *Składnia podmiotu szeregowego we współczesnym języku polskim*. Kraków: Libron

## Michaela Čakányová and Lucie Černá

Palacký University, Olomouc, Czech Republic  
 michaela.cakanyova@upol.cz, lucie.cerna01@upol.cz

### English State Verbs of Attitude in Progressive Form

This paper focuses on the use of the English state "verbs of attitude" (Leech 2004) in the progressive form. Verbs such as *love*, *like*, *hope*, etc. usually occur in the simple form; the progressive form is not typical for them. Some linguists go even further and claim that for example the occurrence of the verb *love* in the progressive (1) "remains nonsense" (Vendler 1957, 144).

(1) \*/? I **am loving** you.

However, that there has been a gradual increase in the use of the progressive form with state verbs was confirmed by the data from COHA (Corpus of Historical American English). The distribution of these verbs in the progressive form at the beginning of the 19<sup>th</sup> century, 20<sup>th</sup> century and 21<sup>st</sup> century was examined. The paper will show that the occurrences such as (2) are not exceptional since the beginning of the 20th century, while in the beginning of the 19th century they could be hardly encountered.

(2) Whatever happens, be sure that I **am loving** you with all my heart [...] (BAC, 1922)

It is not only the growing use of the progressive form with state verbs that is worth noticing, but also the semantics of these verbs. It seems that there has been a shift or enrichment of meaning of the above mentioned verbs. Since it was said that "[o]ne of the most fascinating aspects of multilingual corpora is that they can make meanings visible through translation" (Johansson 2007, 57), the data from the Intercorp, Project of the Czech National Corpus, were used for a comparison of the English verbs of attitude in the progressive form and their Czech translation equivalents.

First, two subcorpora were created within the Intercorp, one with English as the source language (7,277,681 words), the other with Czech as the source language (1,732,771 words). All the forms of the verb *be* followed by the -ing form of the English state verbs of attitude were looked up. The paper will provide evidence that not only such phenomena as politeness and dynamism, which are typically associated with verbs of attitude in the progressive form, can be observed. The investigation reveals that in Czech the use of degree modifiers or verbs that are semantically richer compensates for the English progressive form. 24% of the Czech translation equivalents of the English state verbs in the progressive form do not show properties of either politeness or dynamism. What they seem to convey though, is a higher degree of intensity or expressivity.

## References

- Biber, D., Johansson, S., Leech, G., Conrad, S., Finegan, E. and Quirk, R. 1999. *Longman grammar of spoken and written English*. London/New York.
- Cruse, D. Allan. 2011. *Meaning in Language*. Oxford: Oxford University Press.
- Cvrček, Václav. 2010. *Mluvnice současné češtiny: Jak se píše a jak se mluví*. Karolinum.
- Čermák, František. 1997. *Jazyk a jazykověda: přehled a slovníky*. Karolinum.
- Český národní korpus – InterCorp [online]. Praha: Ústav Českého národního korpusu FF UK v Praze. Dostupný z WWW: <<http://www.korpus.cz>>.
- Davies, Mark. (2010-) The Corpus of Historical American English: 400 million words, 1810-2009. Available online at <http://corpus.byu.edu/coha/>.
- De Wit, Astrid, and Brisard Frank. 2009. "Expressions of epistemic contingency in the use of the English present progressive." *Linguistic Society of Belgium* 4: 1–18.
- Filipec, Josef, ed. 2005. *Slovník spisovné češtiny pro školu a veřejnost: s Dodatkem Ministerstva školství, mládeže a tělovýchovy České republiky*. Academia.
- Hatcher, Anna Granville. 1951. "The use of the progressive form in English: A new approach." In *Language* 27.3: 254–280.
- Huddleston, Rodney, and Pullum, Geoffrey, K. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Johansson, Stig. 2007. "Seeing through multilingual corpora". In *Corpus linguistics 25 years on: 57*, Amsterdam - New York.)
- Karlík, P., M. Nekula, and Z. Rusínová. 1995. *Příruční mluvnice češtiny*. Praha: Lidové noviny.
- Kranich, Svenja. 2010. *The Progressive in Modern English. A Corpus-Based Study of Grammaticalization and Related Changes*. Amsterdam, New York: Rodopi.
- Leech, Geoffrey, N. 2004. *Meaning and the English Verb*. 3rd ed. Harlow: Pearson ; New York: Longman.
- Mair, Christian. 2006. *Twentieth-century English: History, variation and standardization*. Cambridge University Press.
- Mair, Christian, and Geoffrey Leech. 2006. "14 Current Changes in English Syntax." *The handbook of English linguistics* 36: 318.

- Smith, Carlotta S. (1983). "A Theory of Aspectual Choice." *Language* 59(3): 479-501.
- "The Leipzig Glossing Rules: Conventions for Interlinear Morpheme-by-Morpheme Glosses." Department of Linguistics of the Max Planck Institute for Evolutionary Anthropology and Department of Linguistics of the University of Leipzig. Revised version of February 2008. Accessed December 8, 2013. <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>.
- Quirk, R., Greenbaum, S., Leech, G., Svartvik, J., and Crystal, D. 1985. *A Comprehensive Grammar of the English Language*. London: Longman.
- Sag, I. 1973. *On the state of progress on progressives and statives*. *New Ways of Analyzing Variation in English*, ed. C. Bailey and R. Shuy, 83-95. Washington: Georgetown University Press. – In the dissertation by Nicholas Smith
- Vendler, Zeno. 1957. "Verbs and times". *The Philosophical Review* 66.2: 143-160.
- Zima, Jaroslav. 1961. *Expresivita slova v současné češtině: studie lexikologická a stylistická*. Nakl. Československé akademie věd.

## Daniel Calvo Carmona

Universidad de Sevilla, Departamento de Filología Inglesa (Lengua Inglesa), Spain  
dcalvo@us.es

### Phonetic Computerised Training Studies: a Systematic Revision

The difficulty L2 learners have to produce and perceive foreign language sounds remains a major challenge for language acquisition. To accelerate this process, computerised training software has been used since it may provide learners with natural phonetic variability in contexts where access to native speakers is limited (Iverson 2012, 145). Alternatively, it could also be useful in situations where the only input learners receive may come from non-native foreign language teachers who produce non-target-like input. These systems allow learners to practice their production and perception abilities in controlled tasks, helping them develop the phonetic awareness necessary to improve vowel and consonant perception and production (Iverson 2012, 157). Currently, there are no systematic revisions that we know of that can shed light on the effectiveness of phonetic training. This poster presentation shows the first preliminary results of the systematic revision of 25 research articles dealing with phonetic training studies, analysing their descriptive as well as methodological features. The methodological quality of these research studies is measured with the instrument Methodological Quality Scale (MQS) (Sanduvete, 2008).

The articles were obtained from nine well-known databases and codified taking into account the following descriptive variables: mean age, age range, sample

size, training results, target language, mother tongue, training intensity (measured in number of hours), inclusion criteria, and training period. In addition, the 22 items in the MQS scale were also applied in the codification process. Results show that both descriptive and methodological aspects in these studies need to be improved for the data to be representative of the population. Considering the descriptive features used, sample size is quite variable, with a standard deviation of 20.33 and a mean of 25.65. Inclusion criteria are very limited and in most cases only require that subjects are foreign language speakers to be accepted in the study (57.7 percent). Few studies require that subjects have not stayed in the target language country for extended periods (26.9 percent). Language tests to assess language proficiency are also scarcely used (7.7 percent of studies). Level of educational attainment is not considered in many cases (46.2 percent), and the vast majority of studies that include it only accept subjects enrolled at university or holding university degrees (42.3 percent). Results from the MQS scale indicate that mean quality is moderate due to lack of control techniques (only one study makes use of a control technique: a double-blind study). Conclusion: the sample of studies in this systematic revision presents several methodological problems as well as problems related to the control of confusion variables. These results affect both the studies' reliability and applicability to the general population. A series of recommendations to improve methodological quality in future phonetic training studies are provided.

### References

- Iverson, P. Melanie Pinet, and Bronwen G. Evans. 2012. "Auditory training for experienced and inexperienced second-language learners: Native French speakers learning English vowels." *Applied Psycholinguistics* 33: 145-160.
- Sanduvete Chaves, Susana. 2008. "Innovaciones metodológicas en la evaluación de la formación continua." (PhD diss., Universidad de Sevilla).

## Victoria Camacho-Taboada and Ángel L. Jiménez-Fernández

Univeridad de Sevilla, Spain  
tutatis@us.es, ajimfer@us.es

### The puzzle of Romance discourse clitics

**Background:** In Italian, French and Portuguese, argument clitic pronouns are in complementary distribution with constituents with the same syntactic function in canonical position. Because of that, since the 60s, the null hypothesis about Romance clitics has been the movement account; and, as a result, they are considered phrasal elements (Kayne 1975; Rivero 1986; Rouveret 1992; Cardinaletti 1994; Uriagereka 1995; Chomsky 1995; Raposo 1998; Leonetti 2008, Ormazábal & Romero 2013-for accusative clitics a.o.). On the contrary, others have proposed that, in languages such as Spanish, Catalan or Romanian, pronominal clitics are base-generated as affixes of V (Jaeggli 1986, Suñer 1988, Fernández Soriano 1989; Camacho 2006; Franco 2000; Schrotten 2010, Ormazábal & Romero 2013-for dative clitics, a.o.). In these languages a clitic and an argument can appear in the same sentence sharing the same syntactic function (clitic doubling- CD), thereby avoiding the assignment of the same  $\theta$ -role to two elements. In this paper we show evidence in favor of the affix theory for all Romance languages. We discuss the syntax and discourse of clitics in light of the two types of Romance languages which can be distinguished based on the availability of CD.

**Proposal:** We claim that Romance pronominal clitics are discourse clitics and as such they are the spell-out of a bundle of (agreement)  $\varphi$ -features and (discourse)  $\delta$ -features in the appropriate functional category. We ground our hypothesis in Clitic Left Dislocation (CLLD), which is implicitly considered throughout Romance languages as an anomalous instantiation of CD. Interestingly, CD is not allowed in Italian, French or Portuguese in sentences with canonical order. We take this behavior as evidence that Romance pronominal clitics in CLLD qualify as discourse affixes. Thus, the presence of  $\delta$ -features mark a non-canonical constituent order in the sentence since the doubled element, co-referential with the clitic, has been topicalized and moved to the Left Periphery (LP) –more precisely to spec-TP– in (1):

- (1) Esa cuenta,  $la_i$  abrió en Suiza la infanta imputada.<sub>i</sub> (CLLD-Spanish)

This account, it open-PAST in Switzerland the princess impeached

Moreover, we claim that this analysis can be extended to sentences like (2) where the clitic *la* is coreferential with *una cuenta* in the previous sentence.

- (2) El juez ha descubierto una cuenta; en Suiza.  $La_i$  abrió la infanta imputada.

the judge has discovered an account in Switzerland. It open-PAST the princess impeached

We consider (2) a CLLD structure. In line with Frascarelli (2010), we propose that these structures involve the movement of a null topic ( $e$ ) coreferential with the clitic to the LP and conveying familiarity (Frascarelli & Hinterhölzl 2007), as shown in (3).

(3) [<sub>CP</sub> [<sub>TP</sub>  $e_i$  [<sub>T</sub> La, abrió] [<sub>VP</sub> la infanta imputada  $e_i$ ]]]

**Conclusion:** Romance discourse object pronominal clitics are never assigned a  $\theta$ -role, since either there is an explicit doubled element or a null doubled constituent (both with a topic interpretation) related to them. Hence they are agreement morphemes with discourse features in all Romance languages.

### References

- Camacho-Taboada. 2006. *La arquitectura de la gramática: los clíticos pronominales románicos y eslavos*. Sevilla: Servicio de Publicaciones de la Universidad de Sevilla.
- Cardinaletti, Anna. 1994. "On the internal structure of pronominal DPs." *The Linguistic Review* 11:195-219.
- Fernández Soriano, Olga. 1989. Rección y ligamiento en español. Aspectos del parámetro del sujeto nulo. Doctoral Dissertation, Universidad Autónoma de Madrid.
- Chomsky, Noam. 1995. "Categories and transformations." In *The Minimalist Program*, 219-394. Cambridge, Mass.: MIT Press.
- Jaeggli, Osvaldo. 1986. "Three issues in the theory of clitics: Case, double NPs, and Extraction." In *Syntax and Semantics 19. The Syntax of Pronominal Clitics*, edited by Hagit Borer (ed.), 15-42. Orlando: Academic Press.
- Jon Franco. 2000. "Agreement as a continuum: The case of Spanish pronominal clitics." In *Clitic Phenomena in European Languages*, edited by Frans Beukema and Marcel den Dikken, 147-189. Amsterdam: Benjamins.
- Kayne Richard. 1975. *French syntax: The transformational cycle*. Cambridge, Mass.: MIT Press.
- Leonetti, Manuel. 2008. "Specificity in Clitic Doubling and in Differential Object Marking in Spanish." *Probus* 20: 33-66.
- Ormazabal, Javier and Juan Romero, J. 2013. "Object clitics, agreement and dialectal variation." *Probus* 25(2): 301-343.
- Raposo, Eduardo. 1998. "Some Observations on the pronominal system of Portuguese." *Catalan Working Papers in Linguistics* 6: 59-93.
- Rivero, María Luisa. 1986. "Parameters in the typology of clitics in Romance and Old Spanish." *Language* 64: 774-807.
- Rouveret, Alain. 1992. "Clitic placement, focus and the Wackernagel position in European Portuguese." In *Clitics in Romance and Germanic*, edited by Luigi Rizzi, 103-139. Strasbourg: Eurotyp Working Papers 3.
- Schroten, Jan. 2010. "Clitic Doubling in Spanish. Agreement of the third kind." In *The Linguistic Enterprise. From knowledge of language to knowledge in linguistics*, edited by Martin Everaert, Tom Lentz, Hannah De Mulder, Øystein Nilsen & Arjen Zondervan, 315-326. Amsterdam/Philadelphia: John Benjamins.



- Suñer, Margarita. 1988. "The role of agreement in clitic-doubled constructions." *Natural Language and Linguistic Theory* 6: 391-434.
- Uriagereka, Juan. 1995. "Aspects of the syntax of clitic placement in Western Romance." *Linguistic Inquiry* 26(1): 79-123.

## Éva Dékány

Research Institute for Linguistics, Hungarian Academy of Sciences, Hungary  
 dekan.eva@nytud.mta.hu

### PPs and the silent PLACE noun: evidence from Hungarian case-marked pronouns

Possessed R-expressions in Hungarian agree with the phi-features of their pronominal possessors; possessive agreement precedes the case marker (1). Case-marked pronouns, while semantically appear to be unpossessed, obligatorily bear possessive agreement. Unlike with possessed R-expressions, however, the agreement follows the case (2). This was noticed in Antal (1971) but received no explanation. I give a syntactic analysis of this phenomenon.

- |   |  |
|---|--|
| <p>(1) (az én) szem-em-ben<br/>       I-iness-px.1sg<br/>       in my eye</p> | <p>(2) én-benn-*(em), te-hozz-*(ád)<br/>       the I eye-px.1sg-iness<br/>       in me, to you</p> |
|---|--|

**The syntax of cases:** I adopt the following insights from the recent literature. 1) Spatial PPs have a fine-grained structure, with a universal underlying order of functional P-heads: P<sub>path</sub> > P<sub>place</sub> > P<sub>axpart</sub> > P > DP (c.f. Cinque 2010). 2) Non-spatial cases also have the same underlying structure as spatial cases (Roy and Svenonius 2009). 3) Case markers realize the Place or Path positions in this extended sequence (Riemsdijk and Huybregts 2002, Asbury et al 2007).

**PPs have a possessive structure:** I argue that the obligatory possessive marking of personal pronouns with spatial case supports the idea that PPs involve a possessive relationship. Kayne (2004), Cinque (2010), Noonan (2010), Terzi (2010), among others, have argued that PPs are projected from a silent PLACE noun. The adposition/case is located in a functional head of the PLACE noun's projection, and the Ground functions as the possessor of PLACE (3). That the possessive paradigm on personal pronouns with a spatial case is identical to the ordinary possessive paradigm is straightforwardly explained if PPs indeed involve a possessive core.

- (3) P<sub>path</sub> > P<sub>place</sub> > P<sub>axpart</sub> > P > [<sub>NP<sub>place</sub></sub> DP<sub>Ground=possessor</sub> PLACE]

**Analysis of the variation:** I argue that the variation between (1) and (2) is only apparent; the agreement morphemes in (1) and (2) encode two different possessive relations. PPs universally involve a possession relationship, and since Hungarian exhibits agreement with possessors, there is an agrP in the extended PP. It is located above Ppath.

(4) agrP > Ppath > Pplace > agrP > Paxpart > P > [NP<sub>place</sub> DP<sub>Ground=possessor</sub> PLACE]

The possessum in Hungarian agrees with pronominal possessors, so the silent PLACE possessum also agrees with its pronominal possessors, i.e. with pronominal Grounds. This is why pronouns with a spatial case must be formally possessed. As in the case of ordinary possessed nouns, the possessor precedes the possessum, and the functional heads that modify the possessum are realized as affixes on the possessum.

(5) agrP > Ppath > Pplace > Paxpart > P > [NP<sub>place</sub> DP<sub>Ground=possessor</sub> PLACE]  
 Agreement allative inessive *te 'you' / én 'I'*

(5) is thus linearized as "possessor/Ground-PLACE-case-agreement" (e.g. *én-PLACE-benn-em*). As PLACE is silent, its affixes lean onto the possessor/Ground pronoun for phonological support. In (1) the possessor of PLACE is an R-expression. Possessors don't agree with R-expression possessors in Hungarian, so the PLACE noun also doesn't agree with its R-expression possessor (the Ground), and thus no agreement follows the case marker. In (1) the possessor of PLACE, i.e. the Ground, is *my eye*; that is, the possessive agreement in (1) is internal to the Ground. As all of the Ground is linearized in front of the silent PLACE and its suffixes, the Ground-internal agreement will also precede PLACE and its suffixes.

(6) Ppath > Pplace > Paxpart > P > [NP<sub>place</sub> DP<sub>Ground=possessor</sub> PLACE]  
 allative inessive *szem-em 'eye-agr'=my eye*

Like any PP, (6) linearizes as "possessor/Ground-PLACE-case", that is, [szem-em]-PLACE-ben, and since PLACE is silent, this yields szem-em-ben on the surface.

## References

- Antal, László. 1971. *A magyar esetrendszer*. Budapest: Akadémiai Kiadó.
- Asbury, Anna et al. 2007. „One size fits all”. In *UIL OTS Yearbook 2006*, 1–17. Utrecht: Utrecht University.
- Cinque, Guglielmo. 2010. „Mapping spatial Ps: an introduction”. In *Mapping Spatial PPs*, edited by Guglielmo Cinque and Luigi Rizzi, 3–25. Oxford: OUP.
- Kayne, Richard S. 2004. “Here and there”. In *Movement and silence*, edited by Richard S. Kayne, 65–84. New York: OUP.
- Noonan, Marie. 2010. “À to Zu”. In *Mapping Spatial PPs*, edited by Guglielmo Cinque and Luigi Rizzi, 161–195. Oxford: OUP.

- Riemsdijk, Henk C. & Huybregts, Riny. 2002. „Location and locality“. In *Progress in grammar*, edited by Marc van Oostendorp and Elena Anagnostopoulou, 1–23. Amsterdam: Meertens Instituut.
- Roy, Isabelle and Peter Svenonius. 2009. „Complex prepositions“. In *Autour de la préposition*, edited by Jacques, Francois and Eric Gilbert and Claude Guimier and Maxi Krause, 105–116. Caen: Presses Universitaires de Caen.
- Terzi, Arhonto. 2010. “Locative Prepositions and Place”. In *Mapping Spatial PPs*, edited by Guglielmo Cinque and Luigi Rizzi, 196–224. Oxford: OUP.

## Éva Dékány and Veronika Hegedűs

Research Institute for Linguistics, Hungarian Academy of Sciences, Hungary  
 dekany.eva@nytud.mta.hu, hegedus@nytud.hu

### Higher and higher: postpositions, prepositions, and particles in Hungarian

We study a hitherto unnoticed micro-variation within the word order possibilities of Hungarian case-assigning postpositions, and propose a syntactic account of the variation.

**New observation No1:** there is PP-internal variation in word order. Marácz (1986) and Asbury (2008) claim that case-assigning Ps have the marked option to serve as prepositions. We show that this is only true for some of them.

- |     |   |     |   |
|-----|---|-----|---|
| (1) | (át) az út-on (át)<br>through the road-sup through<br>across the road | (2) | (*alul) a vonal-on alul<br>below the line-sup below<br>below the line |
|-----|---|-----|---|

**New observation No2:** there is variation in extraction. Marácz (1986) and Asbury (2008) claim that case-assigning Ps can be separated from their complement in the clause: these Ps can be used as verbal particles (appearing pre-verbally: P > V > DP+case), and they can be P-stranded under wh-movement of the complement. We show that this is true for some but not all case-assigning Ps.

- |     |   |     |   |
|-----|---|-----|---|
| (3) | *A pont alul van a vonal-on.<br>the dot under be.3sg the line-sup<br>The dot is under the line. | (4) | *Mi-n van alul a pont?<br>what-sup be.3sg under the line?<br>What is the dot under? |
|-----|---|-----|---|

**New observation No3:** the prepositional order and the separability of the P and its complement correlate: it is only those Ps that can act as verbal particles and be P-stranded that have a prepositional use as well.

Following the works in Cinque & Rizzi (2010), we assume that the core of PP is [<sub>CP,PP</sub> C.PP [<sub>pP</sub> p [<sub>PP</sub> P(lace/path) [<sub>KP</sub> DP+case ]]]]. Spec, pP is the merge-in site of the Figure (Svenonius 2003); CP.PP is the left periphery of the adpositional phrase (Koopman 2000). We propose that the following movements are obligatory/possible in the Hungarian PP: (i) KP obligatorily moves to the specifier of PP, deriving the default DP > P postpositional order. (ii) Further movement of KP must pied-pipe PP, i.e. there is no phrasal subextraction from PathP (but PathP can be moved out of pP). (iii) A 'light' P may optionally move from the Path/Place head to the p head, deriving the marked prepositional order.

We suggest that some Ps are generated in Path/Place and remain there. As a result these Ps only have a postpositional use and cannot be prepositions. As neither the P nor the complement can move out of PathP, the P and its complement will remain adjacent throughout the derivation (see alul above). To account for the observed variation, we propose that other Ps have undergone grammaticalization, and they move to or are generated in pP (see át above). As a result these Ps have a prepositional use as well. We suggest that the prepositional use and separability from the complement (verbal particle use and P-stranding) correlate because creating a prepositional order is the first step in the derivation of verbal particle movement and P-stranding. Verbal particle movement is remnant pP movement: first the P is moved to or generated in p, then PathP moves to spec, CPPP. The remnant pP, now only containing the adposition, moves to the verbal domain, into the pre-verbal position. This movement leaves the oblique marked complement stranded in the adpositional phrase. The derivation of P-stranding starts in the same way: the adposition moves to or is generated in p, and the wh-marked complement moves to spec, CPPP. Then the complement moves on from spec, CPPP and lands in the canonical wh-position of the clause, leaving the adposition stranded in pP. Thus unless the adposition has undergone grammaticalization and can reach the p head, the right configuration for particle movement or P-stranding cannot be established.

## References

- Asbury, Anna. 2008. *The morphosyntax of case and adpositions*. PhD thesis, University of Utrecht.
- Cinque, Guglielmo and Luigi Rizzi. (eds.) 2010. *Mapping Spatial PPs*. Oxford: OUP.
- Koopman, Hilda. 2000. "Prepositions, postpositions, circumpositions, and particles. The structure of Dutch PPs". In *The syntax of specifiers and heads. Collected essays of Hilda Koopman*, edited by Hilda Koopman, 204–260. London: Routledge.
- Marácz, László 1986. "Dressed or naked: the case of the PP in Hungarian". In *Topic, focus, and configurationality*, edited by Werner Abraham and Sjaak de Meij, 223–252. Amsterdam/Philadelphia: John Benjamins.
- Svenonius, Peter 2003. „Limits on P: filling in holes vs. falling in holes“. *Nordlyd* 31 (2): 431–445.

## Vojta Diatka

Charles University in Prague, Czech Republic  
Vojta.diatka@gmail.com

### Are Czech Interjections a Well-defined Part of Speech?

In Czech, there is a non-negligible group of words whose primary function is to express emotions. In grammars, they are understood as a separate part of speech and are usually called either Interjections (interjekce) or Expressives (citoslovce) or both. We would like to discuss two issues:

1. According to grammars (Akademická mluvnice češtiny, Příruční mluvnice češtiny, Encyklopedický slovník češtiny), this traditional part of speech has three parts: (a) onomatopoeic words, (b) emotional words, and (c) contact words. We work with the hypothesis that (c) is incompatible with (a) and (b) and also more generally with the concept of interjection. Contact words have usually nothing to do with speaker's emotions or imitating sounds. They serve a phatic function (cf. Jakobson 1960). Thus the word *Ahoj* in the sentence

*Ahoj, jak to jde?* (Hello, how are you?)

serves to secure someone's attention – it is directed primarily towards an addressee, not towards the speaker's emotions.

There has been one attempt to find a unifying feature or principle (Vondráček 2005) but we don't consider his solution based on "sentential equivalent" (větný ekvivalent) satisfying. There is no reason to put these incompatible groups together. Instead, we suggest that contact words belong to another part of speech, which is called "Particles". Particles have many subclasses including "appeal particles" (částice apelové) (Komárek 1986, 231) or illocutionary particles (ilokuční částice) (Nekula 2002, 64). This subclass is based on words that express an illocutionary force. The contact word's elementary function is to establish and to maintain contact with an addressee. We consider this function to express an illocutionary force; therefore they fit better in this part of speech

2. If we accepted this approach to the Czech Interjections, we are left only with onomatopoeic words and emotional words, which the traditional Czech grammars treat as two distinct and separate subclasses. It is claimed that onomatopoeic words imitate sounds and emotional words express emotions. Intuitively, they might belong together but their connection is not obvious at first sight. We would like to introduce the concept of ideophones to offer a crosslinguistic perspective on this Czech part of speech; the aim is to show these two kinds of words as well interrelated. Ideophones are "marked words that depict sensory imagery" (Dingemanse 2011, 25). A sensory imagery in this sense doesn't include

only the traditional five senses such as hearing, vision, taste, smell and touch but also imagery directly connected to states of mind, emotions and feelings. Both of our word groups (a) and (b) are thus suggestive of ideophonic nature. Czech is not rich in ideophones as some African or Asian language are, nevertheless this concept can be used as an underlying unifying principle for the Czech part of speech - Interjections.

### References

- Dingemanse, M. 2011. "The Meaning and Use of Ideophones in Siwu." PhD diss., Radbound Univeristy Nijmegen.
- Jakobson, R. "Linguistics and Poetics", in *Style in Language*, ed. T. Sebeok. (Cambridge, MA: M.I.T. Press, 1960), 350-377.
- Karlík, P. et al. 2003. *Příruční mluvnice češtiny*. Brno: NLN.
- Komárek, M., Kořenský, J., Petr, J., et al. 1986. *Akademická mluvnice češtiny*. 2.díl. Praha: Academia.
- Nekula, M. et al. 2002. *Encyklopedický slovník češtiny*. Praha: NLN.
- Vondráček, M. 2005. "Citoslovce a částice – hranice slovního druhu." *Naše řeč* 81 (1998), accessed February 8, 2014, <http://nase-rec.ujc.cas.cz/archiv.php?art=7419>.

## Linda Doleží

Department of Czech Language, Faculty of Arts, Masaryk University, Brno  
lindadolezi@gmail.com

### Reduction and elaboration in Czech coordinate structures: An elicited imitation task

In this paper we would like to present the results concerning our research in the acquisition of Czech coordinate conjunction structures in children. In our experiment we used the following types of structures in Czech (for lack of space illustrated in English only):

- a) *Mummies cook and grannies cook.*
- b) *Princesses and queens dance.*
- c) *Cars go and buses.\**

We administered an elicited imitation task with 64 preschoolers (aged 3,1–6,0) whose mother tongue is Czech and we wanted to find out if children either elaborate or reduce the sentences in the following way:

- a) *Mummies cook and grannies cook.* ⇒ *Mummies and grannies cook.* // *Mummies cook and grannies.* (REDUCTION)

b) *Princesses and queens dance.* ⇒ *Princesses dance and queens dance.*  
(ELABORATION)

c) *Cars go and buses.\** ⇒ *Cars go and buses go.* (ELABORATION)

Elaboration and reduction are two processes implied by the direct and indirect analyses of this type of structures as analysed for example by Lust (1977). The author presents the results of the imitation tasks carried out by Slobin and Welsh (1973) and Lust and Beilin (1975) from which it is apparent that children, when asked to imitate a coordinate structure, apply the above mentioned two competing strategies. The main preliminary results of our study are: children **did not** reduce a single sentence in the proposed way, children **did** elaborate them in the proposed way, though, and they **did** elaborate much **more** within the agrammatical sentences than in the grammatical ones. The elaboration versus other types of structure deviation in agrammatical as well as grammatical sentences proved to be statistically significant with  $p < 0,05$  (t-test). It is also apparent that the older the children are the less they elaborate (Spearman's correlation coefficient  $r = -0,2966$ ). We would like to compare the results from our current research to the results of an experiment on Czech phrasal versus sentential comparatives by Dolezi and Smolik (2009) where an elicited imitation task was carried out and the implications of direct and indirect analyses and the characteristics these structures share with coordinate structures (Lechner, 2004) were discussed.

## References

- Beilin, H., Lust, B. 1975. A study of the development of logical and linguistic connectives: linguistic data. In *Studies in the cognitive basis of language development*, edited by Beilin, H., New York: Academic Press.
- Dolezi, L., Smolik, F. 2009. Direct and Indirect Analysis of Phrasal Comparatives: The Case of Children's Czech. In *Czech in Formal Grammar*, edited by Dočekal, M., Žiková, M., 51–64, Lincom Studies in Slavic Linguistics, 36, Munich: Lincom.
- Lechner, W. 2004. *Ellipsis in Comparatives*. Berlin: Mouton de Gruyter.
- Lust, B. 1977. "Conjunction reduction in child language." *Journal of Child Language*, 4 (2): 257–287.
- Slobin, D. I., Welsh, C. 1973. "Elicited imitation as a research tool in developmental psycholinguistics." In *Studies of child language development*, edited by Ferguson, C. and D. I. Slobin. New York: Rinehart & Winston.

**Kateřina Havranov**

Palack University, Olomouc, Czech Republic  
havranova@email.cz

## **Default Case in Dutch: A Comparative Study of Dutch and English Case Systems**

This paper deals with the theory of case and compares the case systems of two historically related languages – English and Dutch. One of the questions it asks is how it is possible that even though they are both case poor Germanic languages (like Danish, Swedish and Afrikaans as other examples) with the morphologically distinct case forms visible only on personal pronouns and not on other elements within the noun phrase (as is the case in e.g. German, Icelandic or Faroese), they have got different rules governing their default case marking. According to previous studies (Schtze 2001, Weerman 2003, Sigursson 2006, etc.), English has the accusative case (ACC) as the default form while Dutch has the nominative case (NOM) as the default form. I will look at different environments in which the default case occurs and try to determine whether a hypothesis can be supported that accounts for inter- or intra-speaker variation.

Furthermore, I will discuss an interesting example of how the prescriptive approach of the Dutch grammarians of the 16<sup>th</sup> to 18<sup>th</sup> centuries, who attempted to model their language according to more perfect classical languages with rich inflectional systems like Latin or Greek, fossilized the case system for a certain period of time and resulted in a discrepancy between the written standard and the spoken form. This finally had to be resolved through the reforms of 1946/1947 that abolished the case system in Belgium and the Netherlands and brought the spoken and the written form closer together again.

Finally, I examine some recent changes in the case system in Dutch and show that the dative case form of the third person plural is gradually spreading to subject positions as well. This change is another example of language change that starts in the spoken (non-standard) language and is gradually spreading to standard language.

### **Bibliography:**

- Allen, Cynthia. (1997). "Middle English Case Loss and the 'Creolization' Hypothesis." *English Language and Linguistics* 1: 63–89.
- De Vries, Jan, Roland Willemyns, and Peter Burger. (1993). *Het verhaal van een taal. Negen eeuwen Nederlands*. Amsterdam: Prometheus.



- Emonds, Joseph. (1986). "Grammatically Deviant Prestige Constructions". In *A Festschrift for Sol Saporta*, edited by M. Brame, H. Contreras, F.J. Newmeyer, 93–129. Seattle: Noit Amrofer Press.
- Haeseryn, Walter, and K. Romijn, et al. (1997). *Algemene Nederlandse Spraakkunst*. Groningen: Martinus Nijhoff uitgevers.
- Parrott, Jeffrey Keith. (2012). "Post syntactic mechanisms of vestigial case in (North) Germanic". Copenhagen: University of Copenhagen.
- Schütze, Carson T. (2001). "On the Nature of Default Case". *Syntax* 4: 205–238.
- Sigurðsson, Halldor Armann. (2006). "The Nom/Acc Alternation in Germanic." In *Comparative Studies in Germanic Syntax*, edited by Jutta Hartmann, and Laszlo Molnarfi, 13–50. Amsterdam: John Benjamins.
- Weerman, Fred P. (2003). "Nominative-dative Inversion and the Decline of Dutch." In *Germania et alia: A linguistic Webschrift for Hans den Besten*, edited by J. Koster, and H. van Riemsdijk, 1–12. Groningen: Rijksuniversiteit Groningen.

## Viktória Horváth

Department of Phonetics, Research Institute for Linguistics of the Hungarian Academy of Sciences, Hungary  
 hvuki@freemail.hu

### Disfluencies in school-age children's spontaneous speech

Psycholinguistic studies generally focus on early periods of language acquisition. Although there are spectacular changes in spontaneous speech of school-age children, less is known about the development of their speech planning processes. In this study, we focus on certain disfluencies in school-age children's speech. They are important because these phenomena provide information on speech planning and self-monitoring processes. Disfluencies can be interpreted as uncertainties (e.g. filled pauses, restarts, repetitions) and speech errors (e.g. false words, grammatical errors, see Gósy 2002). The frequency of disfluencies is claimed to decrease across ages (Yairi-Clifton 1972). For example, eight-year old children produced more articulation errors and less number of repetitions than kindergarten children (Haynes-Hoods 1977). School-aged children's filled pauses were found to be longer than those in adults's speech. In addition, children produced filled pauses with different articulation gestures than adults did (Gósy et al 2013).

The aim of this study was to describe the quantitative and qualitative patterns of disfluencies including temporal properties in school-age children's spontaneous speech as a factor of development. We hypothesized that (i) 8-year-old

children would produce less disfluencies than 9-year-olds would, and (ii) less types of disfluencies could be detected in younger children's speech.

We developed a corpus for the present study. 36 narratives were recorded at the children's school in a silent room using a Sony ICD-SX700 tape-recorder. 8- and 9-year-old children (9 boys and 9 girls in each group) participated in the experiment. All of them were monolingual speakers of Hungarian with normal hearing, and typical language acquisition. Children were asked to speak about their family, school and hobbies. The total material was about two hours long (4 minutes per participants, on average) and was annotated using Praat 5.1 (Boersma-Weenink 2010). We analyzed the following types of disfluencies: filled pauses, repetitions, restarts, false starts; their occurrences, morpho-phonological characteristics and durational properties. Statistical analysis was carried out using SPSS 13.0 program (analysis of variance, Mann-Whitney U test, Kruskal-Wallis test, as appropriate).

Results showed that, as expected, filled pauses were the most frequent phenomena in both age groups while repetitions and restarts occurred much rarely. The proportion of the speech errors fell short of 10%. The occurrence, morpho-phonological and temporal characteristics of the disfluencies significantly depended on age. We can conclude that the analyzed phenomena reflect characteristic differences between 8 and 9 old children underlying their mastering differences in producing spontaneous speech samples.

## References

- Boersma, Paul and Weenink, David. 2011. Praat: doing phonetics by computer. ([http://www.fon.hum.uva.nl/praat/download\\_win.html](http://www.fon.hum.uva.nl/praat/download_win.html))
- Fromkin, Victoria A. 1973. "The non-anomalous nature of anomalous utterances." In Fromkin, Victoria A. (ed.): *Speech Errors as Linguistic Evidence*. Mouton. The Hague. 215-242.
- Gósy Mária 2002. "A megakadásjelenségek eredete a spontán beszéd tervezési folyamatában." *Magyar Nyelvtér* 126/2: 192-204.
- Gósy Mária, Bóna Judit, Beke András and Horváth Viktória 2013. "A kitöltött szünetek fonetikai sajátosságai az életkor függvényében." *Beszédkutatás* 2013: 121-143.
- Haynes, William O. and Hoods, Stephen B. 1977. "Language and disfluency variables in normal speaking children from discrete chronological age groups." *Journal of Fluency Disorders* 2: 57-74.
- Levelt, Willem J. M. 1989. *Speaking. From Intention to Articulation*. Cambridge: MIT Press.
- Yairi, Ehud and Clifton, Noel F. Jr. 1972. "Disfluent speech behavior of preschool children, high school seniors, and geriatric persons." *Journal of Speech and Hearing Research* 15: 714-719.
- Yaruss, J. Scott, Newman, Robyn M. and Flora, Tracy 1999. "Language and disfluency in nonstuttering children's conversational speech." *Journal of Fluency Disorders* 24/3: 185-207.

## David Hron

Tel Aviv University

davidhron1@gmail.com

### About one divergence among Slavic languages

The talk will discuss reflexive and reciprocal verbs in ten major Slavic languages. As we will see, the properties of these two classes of Slavic verbs are not uniform. Instead, it appears that Slavic reflexive and reciprocal verbs systematically display two different, contrasting sets of properties. Moreover, this division will appear to correlate with the morphological inventory of the given languages, namely, the East Slavic languages, which create their reflexive and reciprocal verbs via the morpheme SJA (1), constitute one group, while the West and South Slavic languages, whose reflexive and reciprocal verbs are created via the clitic SE, constitute the second group (2).

**(1a) SJA-reflexives**

vkolotysja "to stab oneself" (Ukrainian)

**(1b) SJA-reciprocal**

deržatsja "to hold each other" (Russian)

**(2a) SE-reflexives**

prinuditi se "to force oneself" (Croatian)

**(2b) SE-reciprocal**

sledovať sa "to follow each other" (Slovak)

After verifying that the Slavic SE-reflexives/reciprocals and SJA-reflexives/reciprocals are indeed "true" verbal formations (and not sentential constructions based on transitive verbs and reflexive/reciprocal anaphors), we will observe that languages, which have the clitic SE at their disposal (i) form reflexive and reciprocal verbs productively, (ii) their dative reflexive and reciprocal verbs are able to license an accusative (direct) object, (iii) allow reflexive and reciprocal ECM structures, (iv) their reciprocal verbs do not necessarily express one symmetric reciprocal event, but are also able to denote a reciprocal sequence of two or more asymmetric sub-events, and (v) their reciprocal verbs in general do not license so-called discontinuous constructions. On the other hand, languages that do not have the clitic SE and their reflexive and reciprocal verbs involve the morpheme SJA display opposite properties, i.e. (i) the formation of reflexive and reciprocal verbs in these languages is not productive, (ii) these languages have no dative reflexives and only sporadic cases of dative reciprocals, which are, however, unable to license an accusative (direct) object, (iii) they do not allow reflexive and reciprocal ECM structures, (iv) their reciprocal verbs necessarily express one symmetric reciprocal event, and (v) their reciprocal verbs do license discontinuous constructions. For the sake of concreteness, the following examples demonstrate the second of the above mentioned distinctions, that is the fact that SE-dative reciprocals (3a), contra SJA-dative reciprocals (3b), license an accusative object:

### (3) Licensing of an accusative object by dative reciprocals in Slavic languages

#### (a) SE-reciprocals

Petar i Jana si šepotat tajni. (Macedonian)

Petar and Jana SI whispered secrets<sub>-ACC</sub>.

"Petar and Jana whispered secrets to each other."

#### (b) SJA-reciprocals

Pjatro i Jana šaptalisja (\*tajmnicy).

(Belorussian)

Pjatro and Jana whispered<sub>-REC</sub>

(\*secrets<sub>-ACC</sub>).

"Pjatro and Jana whispered

(\*secrets to each other)."

After presenting the data I will argue that the above outlined robust divergence can be attributed to the non-uniform setting of the Lex-syn parameter (Reinhart & Siloni 2004, 2005) among Slavic languages. More specifically, following Reinhart & Siloni (2004, 2005) and Siloni (2002, 2008, 2012), I will show that the different behavior of reflexive and reciprocal verbs in West and South Slavic languages, as opposed to East Slavic languages, receives a straightforward and elegant account if one assumes that the former derive their reflexive and reciprocal verbs in the syntax, while in the latter reflexive and reciprocal verbs are formed pre-syntactically, i.e., in the lexicon.

Time permitting I will shortly mention properties of Slavic middles, which seem to be governed by the setting of the Lex-syn parameter too, as observed first by Marelj (2004). Following Hron (2005, 2012) I will also outline a fresh account for the fact that Czech, Slovak and Polish have – despite their “syntactic character” and contra Reinhart’s and Siloni’s original prediction – reflexive and reciprocal nouns.

### References:

- Hron David, 2005: On the Derivation of Reflexive nouns: The Case of Czech, talk given at the 14<sup>th</sup> Conference of the Student Organization of Linguistics in Europe (ConSOLE XIV), Vitoria, Spain, December 2005.
- Hron David, 2012: *Arity Operations: Domain of Applications – A comparative Study of Slavic Languages*, Doctoral dissertation, Tel Aviv University.
- Marelj Marijana, 2004: *Middles and Argument Structure across Languages*, Doctoral dissertation, OTS, University of Utrecht.
- Reinhart Tanya & Siloni Tal, 2004: “Against the Unaccusative Analysis of Reflexives”, in Artemis Alexiadou, Elena Anagnostopoulou & Martin Everaert (eds.) *The Unaccusativity Puzzle: Studies on the syntax-lexicon interface*, Oxford University Press.
- Reinhart Tanya & Siloni Tal, 2005: “The Lexicon-Syntax Parameter: Reflexivization and other Arity Operations”, *Linguistic Inquiry* 36:3, 389-436.
- Silioni Tal, 2002: “Active Lexicon”, *Theoretical Linguistics*, 28, 383-400.
- Silioni Tal, 2008: “The Syntax of Reciprocal Verbs: An Overview”, in Ekkehard König and Volker Gast (Eds.) *Reciprocals and Reflexives: Cross-linguistic and theoretical explorations*, 451-498, Mouton de Gruyter.
- Silioni Tal, 2012: “Reciprocal verbs and symmetry”, *Natural Language and Linguistic Theory* 30, 261 - 320.

## Christian Huber

Phonogrammarchiv, Austrian Academy of Sciences, Austria  
christian.huber@oeaw.ac.at

### Verbal plural in Shumcho

The Shumcho [šums<sup>h</sup>o] language is a small, endangered West Himalayish (Tibeto-Burman) language spoken in a handful of villages in the Indian Himalayas (Gerard 1842: 548–551, Huber 2013: 221). Systematic research and documentation has begun only in most recent times. Shumcho has a morpheme indicating verbal plural that hitherto appears to be unattested in other West Himalayish languages. This presentation will give a descriptive account of verbal plural as met in Shumcho, based on data from ongoing fieldwork, and make a suggestion as to the origin of the respective marker.

The Shumcho pluractional marker *-š* can occur with intransitive and transitive verbs. As the contrast of (1c) vs. (1d) shows, verbs featuring *-š* require a pluralic subject (Shumcho differs here from languages where pluractional verbal forms also allow singular subjects, see e.g. Huber 2005 for Akkadian; for verbal plurality and its effects in various languages see e.g. Cabredo Hofherr & Laca eds 2012). Consequently, no iterative reading is available. Instead, *-š* signals as many “actions” of the type denoted by the respective verb as there are members in the set that constitutes the pluralic subject. I will therefore propose that *-š* pluralises events. With predicates resulting in a state, each such state must be predicated separately, as shown in (2). I will present and discuss data involving different types of predicates and also different types of quantifiers.

However, verb forms with *-š* exhibit some peculiarities, e.g. subjects of transitive verbs with *-š* do not receive ergative case marking, see (2a) vs. (2b), and *-š* does not occur in verb forms with subject agreement, as shown in (3). Thus, the pluractional marker *-š* does not seem fully integrated in the Shumcho verbal system, which may indicate a rather recent innovation. Interestingly, the language has a homophonous detransitivising marker *-š* (anticausative, reflexive, reciprocal, collective; for cognate markers in other Tibeto-Burman languages see e.g. LaPolla 1996). Verb forms with *-š* are therefore often ambiguous between a pluractional and an intransitive reading, as in (4). After roots ending in /k/, /ŋ/, /p<sup>h</sup>/, /m/, /n/, /r/ and /l/, the intransitive marker *-š* undergoes a (historical?) phonological change and surfaces as /k<sup>h</sup>/, /p<sup>h</sup>/ or /t<sup>h</sup>/, obviously a residue of an intermediary plosive-sibilant cluster where the latter part developed into aspiration of the former, see (5a). This reduction process is also found with the 1<sup>st</sup>/2<sup>nd</sup> person object agreement marker *-s*

and certain loanwords, see (5b-c). The data in Gerard 1842, collected somewhere between 1818 and 1822, apparently represent an older stage of the language in that they have final plosive-sibilant clusters still intact, see e.g. (6). Also notice that pluractional *-š* may also be suffixed to the derived intransitive markers /k<sup>h</sup>/, /p<sup>h</sup>/ or /t<sup>h</sup>/, as shown in (7), and furthermore that suffixation of pluractional *-š* to /k/, /ŋ/, /p<sup>h</sup>/, /m/, /n/, /r/, /l/ does not result in phonologically altered forms, as in (8).

Summing up, the fact that both reciprocal and pluractional verb forms require a pluralic subject (i.e. express a verbal plural) but disallow ergative case marking suggests that plur-actional *-š* evolved from the reciprocal use of intransitive *-š* by retaining the verbal plural feature but lifting the reciprocity requirement, which i) allows for the use of *-š* with non-reciprocal intransitive verbs and ii) also allows for direct objects that are not members of the set that constitutes the pluralic subject. The fact that pluractional *-š* may attach to phonologically altered reciprocal verb forms but does not trigger phonologically altered forms itself possibly suggests that it evolved at a later stage when phonologically altered reciprocal forms in /k<sup>h</sup>/, /p<sup>h</sup>/ or /t<sup>h</sup>/ were no longer transparent.

- (1) a. *do* *dže-u*  
s/he go-PERF  
's/he went'
- b. *dopan* *dže-u*  
they go-PERF  
'they went'
- c. \**do* *dže-š-u*  
s/he go-PLURACT-PERF  
[intended reading: 's/he went (pluractional)']
- d. *dopan* *dže-š-u*  
they go-PLURACT-PERF  
'they went (individually)'
- (2) a. *nokar-pay-k<sup>h</sup>* *i* *bo:ṽay* *p<sup>h</sup>al-u* 'the workers cut down a/one tree'  
worker-PL-ERG one tree fell-PERF (also: cooperated in felling a single tree)
- b. *nokar-pay* *i* *bo:ṽay* *p<sup>h</sup>al-š-u* 'the workers cut down a/one tree'  
worker-PL one tree fell-PLURACT-PERF (each worker felled a different tree)
- (3) a. *dopan* *dže-re-š*  
they go-PAST-3HON  
'they went'
- b. \**dopan* *dže-š-te-š*  
they go-PLURACT-PAST-3HON  
[intended reading: 'they went (individually)']

- (4) a. dzura-ma ‘prepare OBJ’ > dzura-š-ma i) intr. ‘prepare oneself’  
 ii) trans. ‘prepare OBJ’ (plur. subj.)  
 b. kre-ma ‘attack with horns’ > kre-š-ma i) intr. ‘attack each other w. horns, butt horns’  
 ii) trans. ‘attack OBJ with horns’ (plur. subj.)
- (5) a. toy-ma ‘beat (trans.)’ > intr. toy + š > toykš > toyk<sup>h</sup>-ma ‘fight, beat each other’  
 b. k<sup>h</sup>am-ma ‘dress (trans.)’ > AgrO k<sup>h</sup>am.k<sup>h</sup>am + s > k<sup>h</sup>am.k<sup>h</sup>amps > k<sup>h</sup>am.k<sup>h</sup>amp<sup>h</sup>-ma ‘dress 1<sup>st</sup>/2<sup>nd</sup>’  
 c. Urdu k<sup>h</sup>arč ‘expense’ > Shumcho k<sup>h</sup>ort<sup>h</sup> ‘expense’
- (6) Gerard 1842: Chuks ‘iron’ > present-day Shumcho: tšak<sup>h</sup>  
Branch ‘finger’ > brant<sup>h</sup>
- (7) dopan toy-k<sup>h</sup>-u / toy-k<sup>h</sup>-š-u  
 they beat-RECIP-PERF / beat-RECIP-PLURACT-PERF  
 ‘they fought, they beat each other’
- (8) kral-ma ‘make run’ + š > intr. kral-<sup>h</sup>-ma ‘run’  
 > pluract. kral-š-ma ‘make run’ (plur. subj.)

## References

- Cabredo Hofherr, Patricia & Brenda Laca (eds.). 2012. *Verbal Plurality and Distributivity*. Berlin, Boston: de Gruyter.
- Gerard, Alexander. 1842. “A vocabulary of the Koonawur languages.” *Journal of the Asiatic Society of Bengal* 11: 478–551.
- Huber, Christian. 2005. “Complex predicate structure and pluralised events in Akkadian”. In: Katalin É. Kiss (ed.), *Universal Grammar in the Reconstruction of Ancient Languages*. Berlin, New York: Mouton de Gruyter.
- Huber, Christian. 2013. “Subject and object agreement in Shumcho.” In: Thomas Owen-Smith & Nathan W. Hill (eds.), *Trans-Himalayan Linguistics*, 221–274. Berlin, Boston: de Gruyter.
- LaPolla, Randy. 1996. “Middle Voice Marking in Tibeto-Burman.” *Proceedings of the Fourth International Symposium on Languages and Linguistics: Pan-Asiatic Linguistics* 5: 1940–1954. Thailand: Mahidol University.

## Jana Kesselová

University of Prešov, Prešov, Slovak Republic  
jana.kesselova@unipo.sk

### The Grammatical Category of Case in Early Development of Slovak-speaking Children

The **aim** of the research is to describe the development of grammatical category of case in early development of Slovak-speaking children (up to 36 months). The main research questions are as follows:

- Which cases represent preferentially acquired core of case subsystem in Slovak-speaking children?
- What is the relation between case semantics and lexical semantics?
- What is the relation between case semantics and pragmatics of child utterance?
- What is the function of form disgrammatisms in children's early development?

**Two methods:** qualitative and quantitative.

2.1 Qualitative method presents:

- longitudinal studies of 5 Slovak-speaking children communicating with their parents and care givers in natural conditions and in standard situations (bathing, feeding and playing);
- video records were made by children's parents (one hour each month);
- transcription system CHAT in CHILDES (CHILd Language Data Exchange System, word-by word transcription of audiovisual recordings with comments);
- coding and filtration of data done in Excel

Combining sound, visuals and transcripts, a three-modal corpus was made, in which:

- language data is not isolated from the context;
- situational conditions of child's utterance are maintained;
- researcher's wrong interpretation is minimized.

The result of qualitative method:

- hypothesis formulation about the case development;
- findings from qualitative research cannot be generalised to the whole population.

2.2 The hypotheses are verified in quantitative research:

- information about child's speech development was provided by parents;



- the diagnostic tool used: Slovak adaptation of MacArthur-Bates Communicative Development Inventories – Test of Communicative Behaviour II (TEKOS II);
- grammatical subtest of TEKOS II contains of 15 test items (case forms) and a parent chooses from two options - whether a child uses the case or not;
- the research sample consists of 1065 children: 539 girls and 526 boys from 17 to 36 months.

**Results:** 3.1 A Slovak-speaking child acquires all the case forms before the age of three. However, only some semantic specifications of each case are acquired preferentially. (see Eisenbeiss et al., 2009).

3.2 The first case forms in early development of Slovak-speaking children appear in 4 semantic categories:

3.2.1 **objectness** (names of things and people, nominative – accusative);

3.2.2 **locationality** (the first category with the internally structured inventory of means consist of the opposites up/down, close/far, inside/outside);

	beginning of contact	duration of contact
a contact with interior of an object	<i>do + the genitive case into the house/v domčeku</i>	<i>in + the locative case in the forest/v lese</i>
a contact with surface of an object	<i>na + the locative case on the blanket/na deku</i>	<i>on + the accusative case on the blanket/na deke</i>
spatial and equally social contact	<i>to + the dative case to mum/k mame</i>	<i>with + the instrumental case: with mum/s mamou.</i>

3.2.3 **sociativity** (this category relates to spatial contact and reflects a child's need to be with somebody, be close to somebody; see the last line of the table);

3.2.4 **beneficiality** (a child uses dative or accusative case with preposition *for* to name a beneficiary (*for mum / mame/pre mamu*)).

3.3 The case formation in early development of Slovak-speaking children can be divided into two periods: successive a simultaneous (see Voeikova – Dressler, 2002; pre- and protomorphology, adult-like morphology).

The grammatical cases (nominative and accusative) appear in a child's speech successively. In the development of grammatical case first the opposition of nominative – accusative is formed. The quantitative research shows that from 21<sup>st</sup> month accusative is used by more than a half of Slovak-speaking children. Semantic cases (genitive, dative, locative, instrumental) appear together (simultaneously, in one month several cases appear) in a different order, age and with different

frequency in each child (in 5 longitudinal studies from 19 to 25 months). However, semantic concretization of cases and pragmatic functions of utterances with case forms develop in all children identically.

3.4 Developmental disgrammatisms are forms that are not a part of Slovak language system but a child forms them as an analogy according to a model of already acquired words (e.g. *k jazero*vi as analogy to *k tat*ovi, *k ded*ovi instead of *k jazeru*). Nearly one third of Slovak-speaking children go through a disgrammatism period. The diverse interpretation of this phenomenon by N. A. Gvozdev, J. Pačesová, S. Eisenbeiss is discussed.

**Conclusion:** The development of the case is gradual not in stages. The preferential core of the case system is acquired by Slovak-speaking children in this order: in 17<sup>th</sup> month of age from 1 to 10 % of children uses the cases. In 24<sup>th</sup> month approximately a half of children do so and in 36<sup>th</sup> month almost all (90%) of children in our sample (1065 children). Development of grammatical category of case demonstrates how cognition, social experience, experience with item manipulation and with movement in space reflect into preferentially acquired cases.

### Bibliography

- Eisenbeiss, S. – Narasimhan, B. – Voeikova, M.: The acquisition of case. In: *The Oxford Handbook of Case*. Edited by Andrej Malchukov and Andrew Spencer. OUP Oxford, 2009, s. 369 – 383.
- Gagarina, N. – Voeikova, M.: Acquisition of case and number in Russian. In: *Development of Nominal Inflection in First Language Acquisition: A cross-Linguistic Perspective*. Eds: U. Stephany and M. D. Voeikova. Study on language acquisition. 30. Berlín: Walter de Gruyter 2009, s. 179 – 216.
- Gvozdev, A. N.: *Voprosy izučeniya detskoj reči*. Moskva: Izdatel'stvo APN RSFSR 1961. 472 s.
- Pačesová, J.: *The Development of vocabulary in the child*. Brno: Univerzita J. E. Purkyně 1968. 258 s.
- Voeikova, M. – Dressler, W.: Introduction. In: *Pre- and Protomorphology: Early Phases of Morphological Development in Nouns and Verbs*. Eds. Maria D. Voeikova and Wolfgang Dressler. Lincom Studies in Theoretical Linguistics 29. Munich: Lincom Europa 2002, p. 3 – 5.

## Dominika Kovářiková

Institute of the Czech National Corpus, Czech Republic  
dominika.kovarik@gmail.com

### Adjectives in Spoken Czech

Corpora of informal spoken Czech (the ORAL series) allow us to study spoken Czech to an extent only hardly imaginable 10 years ago. Thanks to the morphological tagging and lemmatization of corpus ORAL (not publicly available yet), it is possible to explore morphology and structure of spoken language without arduous manual searching.

Spoken Czech has not yet been analyzed systematically. However, morphology of spoken language in Prague Spoken Corpus (PMK) is described in detail from the frequency point of view (without further analysis and interpretation) (Šonková, 2008). Czech in Spoken Corpus (Kopřivová a Waclawičová, 2008) is a collection of independent studies, and as such is not a systematic description of spoken Czech. Grammar of Contemporary Czech (Cvrček et al., 2010) gives examples of spoken word forms or frequent words, it is nonetheless focused mainly on the written language.

The presented study is focused on adjectives in spoken Czech, especially in comparison with written Czech. It explores some aspects of adjectives, such as percentage of adjectival text positions and lemmas (in spoken vs. written corpus), grammatical category of number, as well as categories of comparison and negation. It also examines the most frequent and/or atypical adjectives (e.g. *sám, rád, nějaký, který, všichni, každý, druhý, třetí*).

This is a pilot study for a more systematic description of spoken Czech morphology. As such, it also points out some of the methodological difficulties encountered in the process of comparing large corpus with relatively small corpus (ORAL is 50x smaller than SYN2010). Mere comparison of relative frequencies in two very different corpora is often problematic because it can give the researcher false results without her/him realizing it. In the second section, the presentation will offer more reliable ways to compare linguistic phenomena in two or more different corpora.

### References

- Cvrček, V. et al. 2010. *Mluvnice současné češtiny*. Praha: Karolinum.  
Kopřivová, M. & M. Waclawičová (Eds.). 2008. *Čeština v mluveném korpusu*. Praha: NLN/ÚČNK.  
Šonková, J. 2008. *Morfologie mluvené češtiny: Frekvenční analýza*. Praha: NLN/ÚČNK.

## Anna Kozánková

Palacký University, Olomouc, Czech Republic  
kozankovaanna@gmail.com

### Internal structure of possessive DPs in Czech and English

The status of Czech nominal structures has recently been a subject of linguistic debate. The hypothesis describing nominal structures as NPs but not DPs in Boškovič (2005, 2011) and Zlatič (1998) now faces a competing hypothesis of Pereltsveig (2007) and Veselovská (1998, 2014). This second hypothesis is based on a close comparison of all Czech and English nominal structures beyond the simple presence vs. absence of articles. This paper focuses on nominal structures containing possessive elements and takes as a point of departure Veselovská's (1998) paper on the subject. She argues that pre-modifying possessive constituents are not a part of NP but are placed in a higher "D-field".

If the position in the structure predicts the characteristics of a constituent, the position of Czech POSS must be different from the English one in spite of several apparent similarities.

- (1) a. \* tvoje/\*tvojí maminčina polička na sušenky  
          your                  mum.POSS-FEM shelf for cookies  
      b. your mum's shelf for cookies
- (2) a. Ti 3 bratřoví kamarádi jsou všichni pěkní.  
          those 3 brother.POSS-MASC friends are all handsome  
      b. \* Those 3 brother's friends are all handsome.

Modifying Veselovská's proposal, this paper uses such data to argue for differing placements of Czech and English possessive elements from a comparative point of view.

Different ways of expressing the constituent related to the position also appear with partitive and universal meaning of the head noun complements to D in Czech and English. If the possessive element cooccurs with another argument competing for the same position as in (3) and (4), the competing argument takes over the universal meaning and the possessive element surfaces at the position of partitive meaning.

- (3) a. všechny tři matčiny kočky utekly  
          all three mother<sub>POSS</sub> cats ran away  
      b. all the three cats of my mother ran away
- (4) a. \* všechny matčiny tři kočky utekly  
          all mother<sub>POSS</sub> three cats ran away  
      b. all of my mother's three cats

Universal quantification incorporates all existing entities as in (5), whereas partitive meaning incorporates only a subgroup of the existing entities as in (6). In Czech the difference between partitive and universal meaning correlates with the presence/ absence of *of* respectively.

- (5) a. *tři matčiny kočky utekly*  
 three mother<sub>POSS</sub> cats ran away  
 b. *three of my mother's cats ran away*
- (6) a. *matčiny tři kočky utekly*  
 mother<sub>POSS</sub> three cats ran away  
 b. *my mother's three cats ran away*

Thus, both languages appear to require more phrasal slots and projections to express the distinction between partitive and universal meanings in possessive constructions.

#### References:

- Bošković, Ž. (2005): On the Locality of Left Branch Extraction and the Structure of NP. In *Studia Linguistica* 59:1, pp. 1-45.
- Bošković, Ž. (2011): More on the DP/NP analysis of languages with and without articles. Paper presented at the 'Conference on Languages with and without Articles', Paris (CNRS/Paris 8), March 3-4, 2011.
- Pereltsvaig, A. (2007) 'The Universality of DP: A View from Russian.' In: *Studia Linguistica* 61:1, pp.59-94.
- Veselovská, L 'Possessive Movement in the Czech Nominal Phrase.' *Journal of Slavic Linguistics* 6/2:1998. Bloomington, Indiana. (255-300)
- Veselovská, L. (2014) Adjective Hierarchy. A paper presented in Theories in Practice International Conference on English and American Studies in September 9, 2013. Tomas Bata University in Zlín, Czech Republic. To appear in the proceedings.
- Zlatic, L. (1998): Slavic noun phrases are NPs not DPs. Paper presented at the 'Workshop on Comparative Slavic Morphosyntax', Bloomington, Indiana, June 6, 1998.

## Marie Krappmann

Palacký University, Olomouc, Czech Republic  
 marie.krappmann@upol.cz

### The precarious status of *modificateurs surréalisants* in German and Czech

In the presented article, the linguistic modifiers that contribute to the intensification and diminution of the argumentative applicability of the respective predicate are examined from the contrastive point of view. In the process of this examination, the samples proposed by Negróni (1995) are critically discussed, which should serve for

the distinction of the so-called *modificateurs surréalisants* (M.S.). With the help of a contrastive analysis of German and Czech intensifying and weakening modifiers (*modificateurs réalisants* – M.R. / *modificateurs dérélisants* – M.D.), the possibilities of argumentatively oriented semantic analysis for contrastive research are explored.

In the first stage, the issues connected to the controversially received concept of the gradual Topos in argumentation processes are summarised. In this, Eggs's critical approach (1994, 2000, 2002) is especially dealt with in greater detail. Further on, the function of intensifying and weakening modifiers is specified with the help of Atayan (2006), whereby it is demonstrated in what way they amplify or diminish the applicability of the predicate in the case of a selected corpus of examples. Hereinafter, another group of modifiers is presented, namely the *modificateurs surréalisants*, such as *překrásný* in Czech or *wunderbar* in German. Negroni (1995) suggests the following operational samples for their differentiation:

- 1) Impossibility of recurrence or the resumption through an anaphora: \*X, mais X M.S.
- 2) With the help of *ne...que (at most)*, the M.R. can, according to Negroni – as distinguished from the M.S. – meta-linguistically negate the higher level.
- 3) The M.S. cannot be the object of interrogation in probing or polar questions.
- 4) In comparison to the M.S., the M.R. can mark a higher level in the same discourse.
- 5) The M.R. can, in contrast to the M.S., be extended by another intensifying element.

The suggested samples are reviewed and discussed based on German and Czech examples from the corpus. At the same time, the potential of the argumentatively oriented approach for the study of adequacy and equivalence in translation science is shown with the aid of this partial topic.

The goals are:

- 1) to point out a problematic group of argumentative modifiers;
- 2) to summarise the complications in the process of differentiation;
- 3) to discuss the contribution of such argumentatively oriented analyses for translation science.

In a wider context, the approach of Radical Argumentativism, developed by Anscombe and Ducrot, is discussed with the help of this analysis.

## References

- Anscombe, Jean-Claude and Ducrot, Oswald. 1983. *L'argumentation dans la langue*. Bruxelles: Mardaga.
- Atayan, Vahram. 2006. *Makrostrukturen der Argumentation im Deutschen, Französischen und Italienischen*. Frankfurt am Main: Peter Lang.
- Carel, Marion. 2001. "Argumentation interne et argumentation externe au lexique: des propriétés différentes." *Langages* 142: 10–21.
- Ducrot, Oswald. 1993. "Les topoi dans la Théorie de l'argumentation dans la langue." In *Lieux communs, Topoi, stéréotypes, clichés*, edited by Christian Plantin, 233–248. Paris: Kimé.
- Ducrot, Oswald. 1995. "Les Modificateurs déréalisants." *Journal of Pragmatics* 24, 145–165.
- Eggs, Ekkehard. 1994. *Grammaire du discours argumentatif*. Paris: Kimé.
- Iten, Corinne. 1999. "The Relevance of Argumentation theory." *UCL Working Papers in Linguistics* 77, S. 41–81. <http://www.phon.ucl.ac.uk/home/PUB/WPL/99papers/iten.pdf> (23. 4. 2013).
- Kienpointer, Manfred. 1992. *Alltagslogik. Struktur und Funktion von Argumentationsmustern*. Stuttgart/Bad Cannstatt: frommann-holzboog.
- Klein, Wolfgang. 1980. "Argumentation und Argument." *Zeitschrift für Literaturwissenschaft und Linguistik* 38/39: 9–57.
- Kopperschmidt, Josef. 1999. "Neue Rhetorik als Argumentationstheorie." In *Wiederkehr der Rhetorik*, edited by Helmuth Vetter and Richard Heinrich, 93–117. Wien: Wiener Reihe 8.
- Mathesius, Vilém. 1938. "Zesílení a zdůraznění jako jevy jazykové." *Slovo a slovesnost* 4: 193–202.
- Negroni, García María Marta. 1995. "Scalarité et Réinterprétation: les Modificateurs Surréalisants." In *Théorie du topoi*, edited by Jean-Claude Anscombe, 101–144. Paris: Kimé.
- Perelman, Chaim and Olbrechts-Tyteca, Lucy. 1958. *Traité de l'argumentation: La nouvelle rhétorique*. Paris: Presses Universitaires de France.
- Wohlrapp, Harald. 2008. *Der Begriff des Arguments*. Würzburg: Königshausen & Neumann.

## Khrystyna Kunets

Ivan Franko National University of Lviv, Ukraine  
oolexyn@gmail.com

## Impersonal Sentences in the English Scholarly Texts in the Humanities: Typology and Frequency (with Some Remarks on Pragmatics)

This paper presents the classification of various syntactic constructions with the impersonal element *it* and the frequency of their occurrence in the English scholarly texts across different disciplines within the field of the Humanities.

The sentences with the *it-element* have been a productive area of studies, but mainly in terms of their information structure and extraposition syntactic processes (Quirk & Greenbaum 1973; Wekker & Haegeman 1996; Green 2006; Ward & Birner 2006), while the diversity of their structural features, their impersonal nature (Möhlig-Falke 2012), semantics, and pragmatic functions have been often overlooked. However, we find them a rich field for analysis, especially on the basis of the academic texts, since impersonal structures are a common feature of academic writing, and also its correlation with the thought structure attracts attention.

This is an independent research, based on a corpus of 85 texts (2000 pages), articles and book experts, in 7 disciplines: History, Linguistics, Literary Criticism, Art Criticism, Politology, Sociology, and Philosophy. The impersonal sentences, derived from the texts, have been classified according to their structure and semantics: at first into three main groups (impersonal proper, with introductory *it* and clefts), and then into further subcategories according to their structure (some of the results are presented in the Charts 1 and 2). This classification is also partly founded on some previous grammar studies, for example, Tesnière structural syntax (Busch, Stenschke 2007) and comparison with the similar structures in other languages. Then, the frequency of the constructions has been calculated (with the raw numbers being later converted into their frequency per 1,000 words for comparison of the texts in different disciplines, which are of different volume).

It has been established that these structures are widely employed in the texts analyzed, and at the same time their typology and frequency varies from discipline to discipline. Other our findings are that such constructions are always connected not only with the information structure, but also with evaluation (except for clefts) – either modal or axiological, and also with the foregrounding of this evaluation and abolishing its logical subject, and contributes to dialogism and heteroglossia. They also serve as a device in the process of hedging (Fraser 2010). The syntax-pragmatics interface of the structures defined (which has not so far been analyzed in great detail) opens perspective for further study.

## References

- Busch A., Stenschke O. 2007. Germanistische Linguistik. Eine Einführung. Gunter Narr Verlag Tübingen.
- Cruse A. 2000. Meaning in Language. An Introduction to Semantics and Pragmatics. Oxford University Press.
- Fraser B. 2010. „Pragmatic Competence: The Case of Hedging“ in *New Approaches to Hedging* by G. Kaltenböck, W. Mihatsch, S. Schneider, 15-34. Emerald Group Publishing.
- Green G. M. 2006. „Some Interactions of Pragmatics and Grammar“ in *The Handbook of Pragmatics* by L. R. Horn and G. Ward, 407-426. Blackwell Publishing.

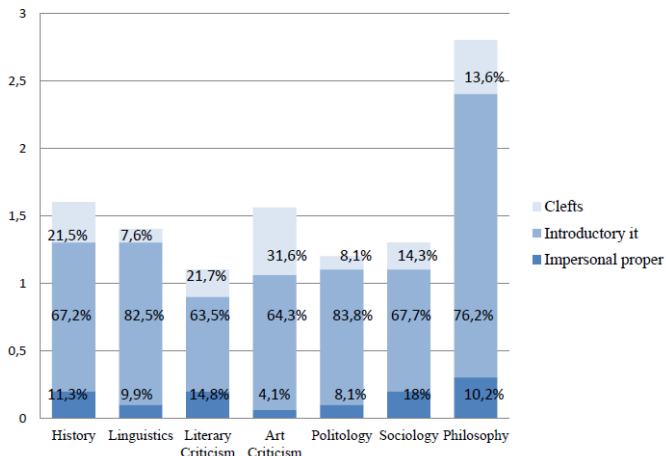


Möhligh-Falke R. 2012. *The Early English Impersonal Construction: An Analysis of Verbal and Constructional Meaning*. USA : Oxford University Press.

Quirk R., Greenbaum S. 1973. *A University Grammar of English*. London : Longman.

Ward G., Birner B. 2006. „Information Structure and Non-canonical Syntax“ in *The Handbook of Pragmatics* by L. R. Horn and G. Ward, 153-174. Blackwell Publishing.

Wekker H., Haegeman L. A. 1996. *Modern Course in English Syntax*. London, New York: Routledge.



**Chart 1.** Frequency of the different constructions with the impersonal element *it* in the English scholarly texts in the Humanities per 1,000 words (and their rate in %)

Discipline \ Type of the construction	H	L	LC	AC	P	S	Ph
It+ Vlin+A/N +Vinf/Ving	0.2	0.4	0.1	0.1	0.2	0.2	0.4
[S[NP/Su][V-it/od...]]	0.1	0.09	0.07	0.07	0.14	0.09	0.06
It+Vlin+Adj/N+for-to-infinitive complex	0.03	0.04	0.06	0.09	0.05	0.04	0.1
It + Vp+subordinate clause	0.06	0.17	0.11	0.1	0.02	0.04	0.11
It+Vmod+Vinf / Vlin+A (/N)	0.04	0.11	0.03	0.09	0.04	0.12	0.27
[S[S <sub>1</sub> [NP/su][VpVlin+A/N(+Vinf)]]][S <sub>2</sub> [Su][VP]]	0.6	0.4	0.3	0.5	0.5	0.4	1.2

**Chart 2.** Various constructions with *introductory it* by discipline (per 1,000 words)

## Maia Lomia and Rusudan Gersamia

Ivane Javakhishvili Tbilisi State University; Ilia State University, Georgia  
maia-lomia@mail.ru; rgersamia@iliauni.edu.ge

### Syntactic Structures in Translation: the Kartvelian Data

Of the four (Georgian, Megrelian, Laz, Svan) Kartvelian languages, only Georgian is a written, standard one; the rest three are represented by only unwritten varieties. The paper addresses the issue of translation of syntactic constructions from Megrelian into Georgian. The conception and development of a hypotaxis in unwritten languages has been on the agenda of linguistic research. The process in point, as part of vernacular varieties, can be conceived of as being triggered by regularities of intrinsic development of the languages in question, as far as oral speech is not a functional style of a standard language but rather an individual system. The analyses of the Megrelian data manifested that a part, advanced within an information stream, is marked with hypotactic constructions. As far as Megrelian is free of the literary norm and style, it applies grammatically abundant means in order to emphasize a focused part. A grammatically abundant one is loaded and significant in terms of information.

Difficulties, associated with translating of syntactic constructions, were noted by all publishers, having provided Megrelian texts with Georgian translations. Hypotactic constructions of various patterns have been attested in Megrelian. Three different patterns are targeted; they demonstrate difficulties of literal translation in different ways: the first one does not follow the norms of Standard Georgian whenever *an attributive dependent clause is expanded pleonastically by means of either a pronominal or adverbial antecedent* (see Example 1); the meaning of the second construction cannot be grasped if it includes *the lexical items vareno or varduo* (see Example 2); the third, the essence is lost in case of a cleft like *sadaa, rom midixar?* 'Where is it you are going?', implying not "Where are you going?" but "Why are you going?" (see Example 3).

- (1) ti koči, namut šxurens č'q'išundu-n, ti-k arc'oro xorci geq'irt'u  
that man-NOM, which.SUB sheep pasture.S3.SG.PST-that that-ERG totally meat  
swallow.S3.SG.AOR
- (2) ma vareno tek kemevrkini, zgiro veuapu sakme  
I NEG-be-S3.SG.PRS-QPTC there come.S1.SG.AOR, well NEG.be-S3.SG.FUT job
- (3) so re meurkini?  
where be.S3.SG.PRS go.S2.SG.PRS-that

## Anna Malicka-Kleparska

John Paul II Catholic University of Lublin, Poland  
malic@kul.lublin.pl

### Semantics behind the non-deletable arguments of morphologically complex transitive verbs: the case of Polish *roz-* transitives

Certain subclasses of transitive verbs cannot drop their internal arguments as easily (if at all) as other subclasses. In this presentation the question will be asked, within the bonds of generative morpho-syntax, why the group of Polish prefixed verbs with *roz-* (representative of the whole group of prefixed accomplishments) is especially persistent in preserving overt internal arguments (examples taken from the *National Corpus of the Polish Language* – Przepiórkowski et al. 2012) :

- a. **Rozpaplają wszystko w szkole** 'They will blurt it out at school' vs. \* **Rozpaplają w szkole** (without overt object)
- b. **roztrąbiła to rozgłośnia Wolna Europa** 'Radio Free Europe has trumpeted it' vs.
- c. **roztrąbiła rozgłośnia Wolna Europa** (without overt object)
- d. **Później błyskawicznie włoscy cukiernicy i lodziarze roznieśli ten wynalazek po całej Europie.** 'Later on, abruptly, Italian confectioners and ice-cream makers have spread it all over Europe' vs. \* **Później błyskawicznie włoscy cukiernicy i lodziarze roznieśli po całej Europie.** (without overt object)

while their unprefixed counterparts can shed the internal arguments easily (cf. 1 a):

2. **oglądały zdjęcia i paplały beztrosko** 'They looked through the pictures and prattled cheerfully' (without the internal argument)

Various circumstances will be considered as relevant to the environment in which verbs realize their arguments as zero elements and the behavior of prefixed accomplishments will be analyzed under these circumstances (see Fillmore 1986, Resnik 1996; Goldberg 2006, Ruppenhofer and Michaelis to appear). Anaphoric contexts and the objects with existential indefinite interpretation will be considered, as well as tight selection restrictions, or the membership in a particular semantic frame. All these factors will be pondered upon in relation to prefixed accomplishments and shown to have no bearing on the verbal behavior. Anaphoric contexts and existential indefinite objects occasionally allow the relevant verbs to appear without overt internal arguments, while selection restrictions in the case of prefixed accomplishments are tighter than with non-prefixed verbs, which, nevertheless, can drop their objects easily. Similarly, prefixed accomplishments belong to various semantic frames, yet they behave uniformly with respect to zero complementation.

The factor which seems to matter is the presence of a specific prefix, e.g. *roz-*. It will be considered as introducing a secondary predication element (Embick 2009, Rappaport Hovav and Levin 1998, Romanova 2007) in accomplishment verbs. Secondary predication, however, in the case of a significant subclass of *roz-* verbs will be shown ineffective as a mechanism explaining their behavior re zero complementation; many prefixed verbs do not show (with respect to the relevant tests) the bi-avalent semantics and thus they do not seem to really give grounds to be analyzed as complex predicates with the resultative phrase in their structure.

As a remedy, Filip's (2013) proposal for Slavic prefixed perfectives as containing an instantiation of a logical operator  $MAX_E$  will be considered. This operator is seen as a requirement which enforces the maximization of semantic information concerning a given event. It will be suggested that the requirement that objects be overt with prefixed accomplishments may be an instantiation of this operator, which, as Filip argues, is a universal operator realized in different ways for various languages.

#### References:

- Embick, David. 2009. "Roots, States, and Stative Passives." Abstract for Root Workshop, University of Stuttgart 2009.
- Filip, Hana. 2013. "Slavic Aspect: A Constantly Moving Goal. A Paper Presented at FDSL Conference, Leipzig 2013.
- Fillmore, Charles. J. 1986. "Pragmatically Controlled Zero Anaphora." *Berkeley Linguistic Society* 12: 95-107.
- Goldberg, Adele. 2006. *Constructions at Work*. Oxford: Oxford University Press.
- Przepiórkowski, Adam et al. (eds.). 2012. *Narodowy Korpus Języka Polskiego*. Warszawa: Wydawnictwo Naukowe PWN.
- Rappaport Hovav, Malka and Beth Levin. 1998. "Building Verb Meaning." In *The Projection of Arguments: Lexical and Compositional Factors, CSLI Publications*, edited by Miriam Butt and Wilhelm Geuder, 97-134.
- Resnik, Philip. 1996. "Selectional Constraints: An Information-Theoretic Model and its Computational Realization." *Cognition* 61: 127-59.
- Romanova Eugenia. 2007. *Constructing Perfectivity in Russian*. Tromsø: University of Tromsø dissertation 2007. Available at <http://hdl.handle.net/10037/904>
- Ruppenhofer Josef and Laura Michaelis (to appear). "Frames and the Interpretation on Omitted Arguments in English."

## Michael McGuire

Indiana University, USA  
mpmcguir@indiana.edu

### Cyclic and post-cyclic integration and the conceptual-intentional system

Locality and minimality constraints, which chunk information, and syntactic chains, which reduce the number of referents in memory, seem to constitute a domain-specific (CHL) response to a processing problem (Chomsky, 2005; Reuland, 2001, Rizzi, 2013). The role of CHL in processing in the conceptual-intentional (CI) system is experimentally addressed in the processing of strings as (1) and (2), exhibiting distinct structure-dependent anaphoric possibilities. In (1) *he* can be James; in (2) it must be disjoint from James.

- (1) Which blog concerning Jamesi did Lisa think this evening that hei had uploaded without thinking?
- (2) Which blog about Jamesi did Lisa think this evening that hej had uploaded without thinking?

Thus, *concerning James* (1) as adjunct is not included on every computational cycle as in (3) (Chomsky 1995; Lebeaux, 1988). The co-reference for *James* and *he* is determined contextually. *About James* as a subcategorized complement is included on every cycle as in (4). Binding Principle C computations at the VP-level rule out both co-reference and binding between *James* and *he* (Frieden, 1986; Lebeaux, 1988). Evidence is offered that the (post-) cyclic integration of adjuncts vs. arguments affects processes in the CI-system, reflecting syntactic mediation.

- (3) which blog concerning Jamesi did Lisa think this evening < which blog > that hei, j had uploaded < which blog > without thinking
- (4) which blog about Jamesi did Lisa think this evening < which blog about James> that he\*i, j had uploaded <which blog about Jamesi> without thinking

Visual processing interfaces with language processing through the conceptual component (Dekydspotter & Miller, 2013; Jackendoff, 1987; Marr, 1982). Classificatory decisions on picture probes can provide evidence on CI processing. Dekydspotter and Miller (2013) argue that picture classification during reading aloud avoids comprehension checks required in a listening modality. Comprehension checks increase processing load in the CI system, creating noise. Reading aloud avoids this, while allowing monitoring of reading ensuring normal prosodic units. If respondents only sounded out orthography, null results would be expected. In this experiment, participants read aloud in a low voice at a set reading pace (Black et al, 2014; Dekydspotter and Miller, 2013; Miller, 2011). The task included 20 critical as in (1, 2) in a Latin square (Table 1), with 40 distracter items involving distinct structures

that looked similar. The items were presented in two matched counterbalanced blocks. Picture probes appeared for 500 milliseconds in varied positions. [ $\pm$  alive] classification times were measured.

Black et al (2014) showed for French that response times for pictures increased as pronouns included in selected complements (but not adjuncts) become bound in the V-domain. They argue that semantic binding interfered with probe classification, since both rely on similar features (animacy, gender) in the CI system. For the principle C suspension of binding and coreference in the V-domain in (2) as shown in derivation (4), a reverse enhancing effect is expected. In fact, a general ANOVA revealed a highly significant *Structure*  $\times$  *Probe Position* interaction,  $F(2, 28) = 11.491$ ,  $p = .002$  in the V-domain. The blocking of co-reference and binding by principle C computations given the derivation in (4) offered processing relief in the V-domain as predicted (Table 2). Hence, pronominal binding induced by the cyclic integration of complements resulted in processing load increases in the CI system (Black et al, 2014). In this case, the suspension of binding and co-reference induced by the cyclic integration of complements conversely freed working memory resources in CI system.

**Table 1. Sample test items with critical probe in V-domain**

- a. Condition 1 (C1): target position, adjunct  
Which / letter / concerning / Susan / did / Peter / whisper / this / morning / that / she / had / read [picture probe: a college-aged female] / with / interest?
- b. Condition 2 (C2): target position, complement  
Which / letter / about / Susan / did / Peter / whisper / this / morning / that / she / had / read / [picture probe: a college-aged female] / with / interest?
- c. Condition 3 (C3): control position, adjunct  
Which / letter / concerning / Susan / did / Peter / whisper / this / [picture probe: a college-aged female] / morning / that / she / had / read / [picture probe: a college-aged female] / with / interest?
- d. Condition 4 (C4): control position, complement  
Which / letter / about / Susan / did / Peter / whisper / this / [picture probe: a college-aged female] / morning / that / she / had / read / with / interest?

**Table 2. RTs to probes: control vs. critical verb position in ms**

Native Speakers ( $n = 30$ )	V-domain	C-domain
NP Adjunct + target	567.1	510.7
NP Adjunct + control	542.8	534.3
N-Complement + target	531.9	526.4
N-Complement + control	583.8	544.9

Black, M., Frimu, R., Panwitz, A. Dekydtspotter, L. & Lorente-Lapole, A. (2014) Computational Cycles in (Second) Language Processing: Cyclic Versus Non-Cyclic Integration in French. BUCLD 38 Proceedings

- Chomsky, Noam. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, Noam. (2005). Three factors in language design. *Linguistic Inquiry*, 36, 1-32.
- Dekydtspotter, Laurent & Miller, A. Kate. (2013). Inhibitive and facilitative priming induced by traces in the processing of *wh*-dependencies in a second language. *Second Language Research*, 29, 345-372.
- Friedin, Robert (1986). "Fundamental issues in the theory of binding," in B. Lust, ed. *Studies in the Acquisition of Anaphora*, Dordrecht: Reidel.
- Jackendoff, Ray. (1987). *Consciousness and the computational mind*. Cambridge, MA: MIT Press.
- Lebeaux, David (1988). *Language Acquisition and the Form of the Grammar*, PhD thesis, University of Massachusetts, Amherst: GLSA.
- Marr, David. (1982). *Vision*. San Francisco, CA: W.H. Freeman.
- Miller, A. Kate. (2011). Second language processing of filler-gap dependencies: evidence for the role of lexical access. In Erik Voss, Shu-Ju Diana Tai, and Zhi Li (Eds.), *Selected Proceedings of the 2011 Second Language Research Forum: Converging Theory and Practice* (pp. 82-94). Somerville, MA: Cascadilla Proceedings Project.
- Rizzi, Luigi. (2013). Locality. *Lingua*, 130, 169-186.
- Reuland, Eric. (2001). Primitives of binding. *Linguistic Inquiry*, 32, 430-492.

Milena Milenova <sup>a,b</sup> and Katerina Nicolaidis <sup>b</sup>

<sup>a</sup> Sofia University "St. Kliment of Ochrid", Bulgaria

<sup>b</sup> Aristotle University of Thessaloniki, Greece

milenova.m@gmail.com; knicol@enl.auth.gr

## The production of new and similar sounds by Bulgarian learners of Modern Greek

Research has shown that the interaction between the L1 and the L2 phonetic systems plays a crucial role in the attainment of the sounds of the target language. There is rich empirical evidence that L2 phonemes which have close but acoustically different counterparts in the native inventory pose more difficulties to the learner than novel sounds (Flege 1987, 1988, 1995, 2002, Bohn & Flege 1992).

This paper is part of a larger project investigating the acquisition of segments by Bulgarian learners of Modern Greek in the light of Flege's Speech Learning Model (SLM, Flege 1988, 1995, 2002) . Here we will report the preliminary results on the production of new /θ, ð/ vs similar /s, z/. The target interdental fricatives are not present in the phonemic inventory of Standard Bulgarian. In this case the task of the learner is to establish new phonetic categories and to learn to implement novel articulatory gestures. The target sibilants exist in both L1 and L2 inventories. Studies on the articulatory properties of /s/ show that it is a retracted

alveolar (Nicolaidis 2001, 2004). These properties are highly variable due to coarticulation effects (Nicolaidis 1994, 2001). Spectral data show that Modern Greek /s/ and /z/ are between English /s/ and /ʃ/ and /z/ and /ʒ/, respectively (Arvaniti 2007). Standard Bulgarian has all four phonemes /s, ʃ, z, ʒ/. There is scarce information on their articulatory and acoustic properties. The attainment of the L2 sibilants requires modification of existing categories and their corresponding articulatory gestures acquired with the L1.

The aim of the present study is to examine the effect of pronunciation training on the acquisition of new and similar sounds and to investigate possible co-articulation effects on phonetic learning.

Eight native Bulgarian learners of Modern Greek (6 females, 2 males) were recorded at two different points in time: prior to pronunciation instruction (T<sub>1</sub>) and after 15 four-hour pronunciation training sessions (T<sub>2</sub>). In addition, ten native Modern Greek speakers (5 females, 5 males) served as a control group. Several speech production experiments were carried out for the purpose of the present study. Experiment 1 examined the acoustic properties of Bulgarian sibilants /s, ʃ, z, ʒ/ produced by Bulgarian speakers and the acoustic properties of the fricatives /s, z, θ, ð/ produced by Greek speakers. Experiment 2 compared the acoustic properties of the target fricatives produced by the Bulgarian and Greek speakers. The data elicitation protocols comprised of real words embedded in carrier sentences. The test words contained the target sounds in initial and medial position in stressed and unstressed syllables with the five Greek vowels /i, e, a, o, u/ and the corresponding Bulgarian vowel categories. Five repetitions of all test items were recorded and four of them were analysed. The centre of gravity (CoG) was measured in the middle 50% of the fricative in each test word. Learners' productions at T<sub>1</sub> and T<sub>2</sub> were compared to the productions of the control group to examine approximation of the target norms. The CoG values produced at T<sub>1</sub> and T<sub>2</sub> were compared to investigate phonetic learning. Independent and paired samples T-tests were used for the comparison of the results and calculation of statistical significance.

The initial results show that pronunciation training had a positive effect on phonetic learning for both new and similar sounds. While there was improvement in the production of the target sounds, phonetic learning of similar sounds did not occur for all vowel contexts, possibly due to co-articulation effects. This observation is in line with the SLM which predicts that co-articulatory patterns are likely to be maintained in L2 production (Flege 1988).



## References

- Bohn, Ocke-Schwen and James Emil Flege. 1992. "The Production of New and Similar Vowels by Adult German Learners of English." *Studies in Second Language Acquisition* 14: 131–158.
- Flege, James Emil. 1987. "The Production of 'New' and 'Similar' Phones in a Foreign Language: Evidence for the Effect of Equivalence Classification." *Journal of Phonetics* 15, 47–65.
- Flege, James Emil. 1988. "The Production and Perception of Foreign Language Speech Sounds." In *Human Communication and Its Disorders*, edited by Harris Winitz, 224–401. Norwood, N.J.: Ablex.
- Flege, James Emil. 1995. "Second Language Speech Learning: Theory, findings and problems." In *Speech Perception and Linguistic Experience: Issues in Cross-Language Research* edited by Winifred Strange, 233–77. Timonium, MD: York Press.
- Flege, James Emil. 2002. "Interactions between the native and second-language phonetic systems." In *An Integrated View of Language Development: Papers in Honour of Henning Wode* edited by P. Burmeister, T. Piske and A. Rohde, 217–244. Trier: Wissenschaftlicher.
- Nicolaidis, Katerina. 1994. "Aspects of Lingual Articulation in Greek: An Electropalatographic Study." In *Themes in Greek Linguistics*, edited by Irene Philippaki-Warbuton, Katerina Nicolaidis & Maria Sifianou, 225–32. Amsterdam: John Benjamins.
- Nicolaidis, Katerina. 2001. "An Electropalatographic Study of Greek Spontaneous Speech." *Journal of the International Phonetic Association* (31)1: 67–85.

## Marek Nagy

General Linguistics Department, Faculty of Arts, Palacký University, Olomouc  
marek.nagy@upol.cz

## Semantic features production in adult speakers

The theory of semantic features played an important role as a representational tool in many of the major theories modeling cognitive language processing. It is also clear that a necessary condition for testing the theory which use this form of representation of semantic content is to establish empirically based model of representation of semantic features. Our research is focused primarily on obtaining data characterizing the production of semantic features of lexical units in adult speakers of Czech, processing them into widely usable form (public database) and it is also focused on their interpretation. Our aim is to create a basic prerequisite for using this kind of models in research in Czech language. The results provide us with empirically derived sets of general semantic properties of conceptual representations of words (in a standardized context), which are subject to extension via the statistical analyzes.

In our paper we would like to present the results of our project in a form of its practical outcomes (introduction to database of semantic features) and mainly by presentation of data obtained and their theoretical frame (specific empirical findings and their framework of interpretation) and discuss methodological difficulties of chosen approach (coding, data relevance, choosing a corpus, collection settings, ecological validity).

Primarily, we focus on a comparative analysis of data in the different conceptual categories, characterization of their internal structure and comparison with data from the field of children's language. The results will be presented in a form that allows comparison with data obtained by similar methods in English language (Vinson-Vigliocco 2008 or McRae-Cree-Seidenberg-McNorgan 2005). The presented results will include variables related to informativeness of the features, such as their distinctiveness, taxonomic characteristics of the conceptual categories, inter/correlation of individual traits and also the possibility of using these findings to characterize the nature of the selected conceptual categories. At the same time, we show how we used the data obtained in the research of prototypicality and we compare them with similar research in English language (Ashcraft 1978).

In the discussion we want to briefly mention the problem of theoretical interpretation of the data due to possible explanation of the nature of the task of generating semantic features itself and draw attention to the possibility of relating them to general linguistic question of the nature of the sharing of conceptual/semantic representation as a basic condition of communication.

## References

- Ashcraft, Mark H. 1978. "Property norms for typical and atypical items from 17 categories: A description and discussion." *Memory and Cognition* 6 (3): 227-232.
- McRae, Ken, George S. Cree, Mark S. Seidenberg, and Chris McNorgan. 2005. "Semantic feature production norms for a large set of living and nonliving things." *Behavior Research Methods, Instruments, & Computers* 37 (4): 547-559.
- Vinson, David P., Gabriella Vigliocco. 2008. "Semantic feature production norms for a large set of objects and events." *Behavior Research Methods* 40 (1): 183-190.

## Kyriaki Neophytou, Marjolein van Egmond and Sergey Avrutin

Utrecht University, Netherlands

k.neophytou@students.uu.nl, m.vanegmond1@uu.nl, s.avrutin@uu.nl

### Word frequency distributions in aphasic speech across languages

Word frequencies in healthy people's speech follow a power law, known as Zipf's law, according to which the frequency of any word in a natural text is inversely proportional to its rank. People with aphasia, experience various difficulties when speaking due to reduced processing capacities (Avrutin 2006; Burkhardt et al. 2008). A previous study, Van Egmond et al. *subm.*, showed that despite these difficulties, the word frequency distribution in speech from non-fluent Dutch people with non-fluent aphasia conforms to Zipf's law, although with a different slope. The difference in slope shows that aphasic speakers use fewer types and as a result use those types more often. The aim of this project was to investigate to what extent these results can be generalized to other languages, specifically English, German and Hungarian, and both for fluent and non-fluent aphasic patients.

Speech samples from fluent (Wernicke's) and non-fluent (Broca's) aphasic patients and controls (N=5 for each group) were taken from AphasiaBank (MacWhinney et al. 2011) (English: Bates et al. 1988; German: Bates et al. 1988; Hungarian: MacWhinney & Osman-Sagi 1991). The analyses we conducted were within-languages all-words analyses, between-languages all-words analyses, and within-language content-words and function-words analyses. The content-words and function-words analyses were conducted only for English since no other language had available part of speech tagging. For each sample, 200 tokens were analyzed for the all-words analyses, 129 words for the content-words analysis and 215 words for the function-words analyses. Fit and coefficient of Zipf's law were calculated through linear regression, and comparisons were made with exact permutation tests.

The results show that speech from all groups conforms to Zipf's law, with no significant differences between aphasic and healthy speech. Some differences in slope were found in all three analyses. In the within-languages all-words analyses for German, it was found that Zipf's law in non-fluent aphasic speech had a steeper slope than in fluent aphasic speech ( $p = .038$ ). For Hungarian, it was found that Zipf's law in healthy speech had a steeper slope than in fluent aphasic speech ( $p = .047$ ). For English, no differences in slope were found. In the between-languages all-words analyses it was found that the Hungarian healthy speech had a steeper slope than the English healthy speech ( $p = .034$ ). In the within-language content-words and function-words analyses, it was found that the English fluent aphasic speech had a steeper slope than the English healthy speech ( $p < .001$ ). The differences in slope do

not seem to follow a particular pattern across the three languages. This suggests that these differences are due to both language-specific features and the language difficulties of each group.

Since aphasics have processing problems but no problems with the storage of words (e.g. Avrutin 2006, Van Ewijk, 2013), we argue that Zipf's law originates in the mental lexicon and not in the processing system of lexical retrieval, as described by Levelt's model (Levelt, Roelofs & Meyer, 1999).

### References

- Avrutin, Sergey. "Weak syntax," In *Broca's region*, edited by Grodzinsky Yosef and Katrin Amunds, 49-62. Oxford University Press, 2006.
- Bates, Elizabeth A., Friederici, Angela D., Wulfeck, Beverly B., and L. A. Juarez. "On the preservation of word order in aphasia: Cross-linguistic evidence." *Brain and Language* 33(2) (1988): 323-364.
- Burkhardt, Petra, Avrutin, Sergey, Piñango, Maria M., and Esther Ruigendijk. "Slower-than-normal syntactic processing in agrammatic Broca's aphasia: Evidence from Dutch." *Journal of Neurolinguistics* 21 (2008): 120-137.
- Levelt, Willem J. M., Ardi Roelofs, and Antje S. Meyer. "A theory of lexical access in speech production." *Behavioral and brain sciences* 22.01 (1999): 1-38.
- MacWhinney, Brian and Judith Osman-Sagi,. "Inflectional marking in Hungarian aphasics." *Brain and Language* 41 (1991): 165-183.
- MacWhinney, Brian, Fromm, Davida, Forbes, Margaret, and Audrey Holland. "AphasiaBank: Methods for studying discourse." *Aphasiology* 25 (2011): 1286-1307.
- Van Egmond, Marjolein, Van Ewijk, Eva, and Avrutin, Sergey. "Zipf's law in non-fluent aphasia." Manuscript submitted.
- Van Ewijk, Elizabeth. "Word Retrieval in Acquired and Developmental Language Disorders: A Bit more on Processing." *LOT Dissertation Series* 335 (2013).

### Jeffrey Keith Parrott

Palacký University, Olomouc, Czech Republic  
jkparrott@gmail.com

### ***Ain't* and the morphosyntax of *-n't***

Noam Chomsky has often remarked that progress in our understanding of the world depends upon scientists' ability to be puzzled by commonplace phenomena. It is surprising, then, that so many linguists have remained unpuzzled by the English word *ain't*, or indeed by the negative form *-n't* more generally. Zwicky & Pullum (1983) have observed that *-n't* causes stem allomorphy (e.g., *will not* → *won't*), and

argued that *-n't* is a kind of inflectional suffix rather than a phrasal clitic. More recent work has documented agreement syncretism induced by *-n't*, for example 'weren't leveling' (e.g., *she weren't [\*were not] scared*) (Schilling-Estes & Wolfram 1994; Wolfram & Schilling-Estes 2003; Mittelstaedt 2006; Parrott 2007).

Although typically stigmatized, *ain't* is a salient characteristic of multiple English varieties (e.g., Wolfram & Schilling-Estes 1998; Howe 1999; Anderwald 2002; Green 2002; Walker 2005) with striking properties. *Ain't* only occurs with *-n't* (i.e., *\*ai not*), which not only induces a complete syncretism of person and number, but also levels the distinction between *be* and *have* (e.g., *I ain't going there* and *I ain't been there*). This occurs only in the present tense (i.e., *\*I ain't there last night* and *\*I ain't been there before last night*). Furthermore, in African-American English (AAE) among others, *ain't* additionally levels *do*. This is most frequent with the past tense (e.g., *I ain't know what was going to happen*), but there is evidence that it occurs in the present tense for at least some individuals (e.g., *Q: What do you think we did? A: I ain't know*). In other words, *ain't* shows that *-n't* is capable of inducing syncretisms across phi, auxiliary-defining, and tense features.

In this paper I elaborate on a proposal by Nevins & Parrott (2010) that is to my knowledge the only general theoretical account of *-n't* induced syncretisms including *ain't*. On their analysis, situated in the framework of Distributed Morphology (DM, Halle & Marantz 1993; Embick & Noyer 2007), a post-syntactic feature-deletion Impoverishment operation (e.g., Noyer 1998) can be triggered by the markedness of the negation head when it is morphosyntactically local to marked features of the finite auxiliary head; i.e., *-n't* but not *not*. Intra-speaker variation is possible because Impoverishment can apply probabilistically, while inter-speaker variation is possible because individuals may have different Impoverishment rules, targeting or triggered by different marked features. However, because Impoverishment deletes features of a terminal prior to Vocabulary Insertion, it only allows insertion of a less marked 'elsewhere' exponent. Evidently *ain't* is the most general form of all, and it results from maximal Impoverishment of features on the auxiliary.

Thus Nevins & Parrott's variable Impoverishment analysis not only explains the puzzling properties of *ain't* and *-n't*, but makes further testable predictions about the co-occurrence of particular syncretic forms both within and across individuals that are evidently supported (e.g., Szmrecsanyi & Kortmann 2006), although more empirical work is needed. I argue that this DM-mechanistic approach is therefore a significant improvement over both 'competing/multiple grammars' (e.g., Embick 2008) and strictly feature-based 'rule-free' accounts that rely on homophony (e.g., Adger 2006).

## References

- Adger, David 2006. 'Combinatorial variability', *Journal of Linguistics*, 42: 503-30.
- Anderwald, Lieselotte 2002. *Negation in Non-Standard British English: Gaps, Regularizations, and Asymmetries*, London and New York: Routledge.
- Embick, David 2008. 'Variation and Morphosyntactic Theory: Competition Fractionated', *Language and Linguistics Compass*, 2 (1): 59-78.
- Embick, David & Noyer, Rolf 2007. 'Distributed Morphology and the Syntax/Morphology Interface', In *The Oxford Handbook of Linguistic Interfaces*, eds. G. Ramchand and C. Reiss, Oxford: Oxford University Press.
- Green, Lisa J. 2002. *African American English: A Linguistic Introduction*, Cambridge, UK: Cambridge University Press.
- Halle, Morris & Marantz, Alec 1993. 'Distributed morphology and the pieces of inflection', In *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, eds. K. Hale and S.J. Keyser, Cambridge, MA: MIT Press.
- Howe, Darin M. 1999. 'Negation and the history of African American English', *Language Variation and Change*, 9: 267-94.
- Mittelstaedt, Jennifer 2006. *Auxiliary Leveling and Morphological Theory: The Case of Smith Island English*, Doctoral Dissertation, Georgetown University.
- Nevins, Andrew & Parrott, Jeffrey K. 2010. 'Variable rules meet Impoverishment theory: Patterns of agreement leveling in English varieties', *Lingua*, 120 (5): 1135-59.
- Noyer, Rolf 1998. 'Impoverishment theory and morphosyntactic markedness', In *Morphology and its Relation to Phonology and Syntax*, eds. S.G. Lapointe, D.K. Brentari and P.M. Farrell, Stanford: CSLI Publications.
- Parrott, Jeffrey K. 2007. 'Distributed Morphological mechanisms of Smith Island *weren't* leveling', In *University of Pennsylvania Working Papers in Linguistics, Volume 13.1: Proceedings of the 30th Annual Penn Linguistics Colloquium*, eds. T. Scheffler, J. Tauberer, A. Eilam and L. Mayol, Philadelphia: University of Pennsylvania Working Papers in Linguistics.
- Schilling-Estes, Natalie & Wolfram, Walt 1994. 'Convergent explanation and alternative regularization patterns: *Were/weren't* leveling in a vernacular English variety', *Language Variation and Change*, 6: 273-302.
- Szmrecsanyi, Benedikt & Kortmann, Bernd 2006. 'The Morphosyntax of Varieties of English Worldwide: A Quantitative Perspective', University of Freiburg.
- Walker, James A. 2005. 'The *Ain't* constraint: *Not*-contraction in early African American English', *Language Variation and Change*, 17: 1-17.
- Wolfram, Walt & Schilling-Estes, Natalie 1998. *American English: Dialects and Variation*, Malden: Blackwell.
- Wolfram, Walt & Schilling-Estes, Natalie 2003. 'Parallel development and alternative restructuring: The Case of *weren't* intensification.', In *Sociolinguistic Dialectology: Papers in Honour of Peter Trudgill*, eds. J. Cheshire and D. Britain, Amsterdam: John Benjamins.
- Zwicky, Arnold M. & Pullum, Geoffrey K. 1983. 'Cliticization vs. inflection: English *n't*', *Language*, 59 (3): 502-13.

## Lucía Quintana Hernández

Universidad Pablo de Olavide, Sevilla, Spain  
liquiher@upo.es

### Aspect and Reciprocal Constructions with *Se*

It has been widely assumed that reciprocal constructions with *se* are a subtype of plural reflexive constructions, and therefore anaphoric constructions with special characteristics derived from plurality and symmetry (Bosque 1985, Otero 1999). This view analyzes the clitic as an anaphoric pronominal that occupies the internal argument position. Based on morphological similarities between reciprocal constructions with *se* and other constructions with *se* such as anticausatives in *El vaso se rompió* (The glass broke), however, there is an alternative perspective that claims that the clitic reduces one of the thematic roles of the dyadic predicate (Mendikoetxea 2012, Siloni 2008, Quintana Hernández 2013). The aim of this work is to show that there is not a unique Spanish reciprocal *se*, and therefore not a unique analysis of reciprocal constructions with *se*.

To achieve our goal, we first differentiate constructions with *se* with reciprocal verbs such as *casar* (marry), *mezclar* (mix), etc. from other reciprocal constructions with *se* with other dyadic verbs which are not reciprocal such as *amar* (love) in *Se aman (el uno al otro)* (They love each other). The former constructions will be named inherent reciprocals and the latter derived reciprocals. We claim that reciprocal constructions with *se* with inherent reciprocal verbs are unaccusative, and subsequently the reductive analysis applies, because inherent reciprocals with *se* allow bare nouns in postverbal position as in *Se mezclan colores* (Colors are mixed), *Se casan parejas* (Couples are married), etc., while most derived reciprocals do not as in *\*Se aman niños* (kids are loved). We have also found that inherent reciprocals are compatible with absolute participle constructions but not with derived reciprocals, as in the following examples, *Una vez casados, se fueron de luna de miel* (Once they married, they went on honeymoon), *\*Una vez amados, se abrazaron* (Once loved, they hugged each other).

Furthermore, we will see that constructions with *se* with inherent reciprocal verbs show telicity effects, while other reciprocal constructions with *se* do not show them, unless the lexical aspect of the predicate is already telic. Inherent reciprocals, for instance, are compatible with *acabar/terminar* (finish) as in *Acaban de mezclarse* (They just mixed), *Acaban de separarse* (They just separated), etc., while derived reciprocals are not as observed in *\*Acaban de amarse* (\*They just loved each other), *\*Acaban de criticarse* (\*They just criticized each other). Inherent

reciprocals, but not derived reciprocals, are also compatible with verbal periphrases such as *llevar* + quantized NP + infinitive and *tardar* + quantized NP + infinitive, as in *Les llevó una hora mezclarse/casarse/juntarse*, etc. (It took them an hour to get mixed/married/joined, etc.). In addition, inherent reciprocals, but not derived reciprocals, are compatible with absolute participle constructions, as already mentioned. These facts suggest that the clitic with reciprocal verbs such as *casarse* (marry) is an aspectual marker but not with derived reciprocals. All in all, these facts together suggest that indeed we have two types of reciprocal constructions with *se*: unaccusative and telic constructions with inherent reciprocal verbs, and unergative constructions with other dyadic verbs which are not inherently reciprocal. In fact, the second analysis is pretty much the regularly assumed for reciprocal constructions in general (Siloni 2008), and also reflexives (Teomiro García 2011). Thus, the main contribution of this work is to show that not all reciprocal constructions with *se* are equivalent.

This work is organized as follows. First, we distinguish inherent reciprocals with *se* from other reciprocal constructions with *se* which are derived syntactically. Second, we apply unaccusativity tests to several inherent reciprocals and reciprocal derived constructions, to conclude that only constructions with *se* with inherent reciprocals are unaccusative. Third, we test telicity effects to show that constructions with *se* with inherent reciprocal verbs are telic indeed. Subsequently, we argue that *se* in reciprocal predicates such as *casarse* is both an anticausative clitic and an aspect marker comparable to those in predicates like *romperse* (break) (Nishida 1994, De Miguel & Fernández Lagunilla 2000, Kempchinsky 2004, Jiménez Fernández & Tubino 2014), while *se* in derived reciprocal constructions is required to get the reciprocal meaning, and predictably in other romance languages. Finally, we present the syntax of reciprocal constructions with *se* following Guéron's (2005, 2007) model. This work gives further arguments for the correlation between unaccusativity and telicity (Pérez & Moreno 2005, Van Hout 2005).

### Bibliography

- Bosque, I. 1985. "Sobre las oraciones recíprocas en español", *Revista Española de Lingüística*, 59-96.
- De Miguel, E. & Fernández Lagunilla, M. 2000. "El operador aspectual *se*", *Revista Española de Lingüística*, 13-43.
- Guéron, J. 2007. "On tense and aspect", *Lingua* 117, 367- 391.
- Guéron, J. 2005. "Tense, Person and Transitivity". In *The Syntax of Aspect: Deriving Thematic and Aspectual Information*. *Oxford Studies in Theoretical Linguistics*, edited by N. Erteschik-Shir & T. Rapoport. Oxford: OUP. 89-116.



- Jiménez Fernández, A. & Tubino, M. 2014. "Variación sintáctica en la causativización", *Revista Española de Lingüística* (in press).
- Kempchinsky, Paula. 2004. "Romance Se as an Aspectual Element". In *Contemporary Approaches to Romance Linguistics*, edited by J. Auger et al. Amsterdam/Philadelphia: John Benjamins, 239-256.
- Mendikoetxea, A. 2012. "Passives and se Constructions". In *The Handbook of Hispanic Linguistics*, edited by Ignacio Hualde, Antxon Olarrea & O'Rourke. Oxford: Wiley Blackwell, 477-502.
- Otero, C. P. "Los pronombres reflexivos y recíprocos". In *Gramática Descriptiva de la Lengua Española*, edited by Ignacio Bosque & Violeta Demonte. Madrid: Espasa Calpe, 1427-1517.
- Pérez Jiménez, I. & Moreno Quibén, N. 2005. "Argumentos a favor de la centralidad de las nociones aspectuales en la interficie léxico-sintaxis: la correlación telicidad-inacusatividad en español". In *Algunos problemas específicos de la descripción sintáctico-semántica*, edited by Juan Cuartero Otal y Gerd Wotjiak. Berlín: Frank and Timme Verlag, 197-213.
- Quintana Hernández, L. 2013. *Construcciones recíprocas*. Madrid: Arco Libros.
- Quintana Hernández, L. 2013. "Unaccusativity, Telicity and Inherent Reciprocals". In *Selected Proceedings of the 15<sup>th</sup> Hispanic Linguistics Symposium* edited by Chad Howe et al. Somerville, MA: Cascadilla Press, 329-342.
- Siloni, T. 2008. "The Syntax of Reciprocal verbs: An Overview". In *Trends in Linguistics. Reciprocals and Reflexives: Theoretical and Typological Explorations*, edited by Ekkehard König & Volker Gast. Berlin: Mouton de Gruyter, 451-498.
- Teomiro García, I. 2011. "Reflexivity and adjustment strategies at the interfaces". In *Nordlyd 37, Relating to reflexives*, edited by T. E. Strahan, 119-149.
- Van Hout, A. 2005. "Unaccusativity as Telicity Checking". In *The Unaccusativity Puzzle. Oxford Studies in Theoretical Linguistics*, edited by A. Alexiadou, E. Anagnostopoulou & M. Everaert,. Oxford: OUP, 60-83.

## Robin Quizar

Metro State University of Denver, CO, USA

quizarr@gmail.com

## Revitalization of Ch'orti', Descendant Language of the Classic Mayan Hieroglyphs

Ch'orti' (Mayan), spoken in eastern Guatemala by approximately 20,000 people, has undergone two stages of language revitalization, which has resulted in various structural changes in the language. Speakers first became aware that their language was dying during the 1970's, when the Ch'orti' linguist at the *Proyecto Lingüístico*

*Francisco Marroquín* (PLFM) noticed that the structure of Ch'orti' was considerably reduced in comparison to most of the other 31 languages in the Mayan language family. At this time PLFM began training teams of speakers of the twenty-one Mayan languages in Guatemala, including Ch'orti', in the technical linguistics required for each team to write a bilingual dictionary and grammar for their own language. The Ch'orti' linguists returned to their communities, taking jobs in bilingual Ch'orti'/Spanish education programs in the schools and adult literacy training in both Ch'orti' and Spanish. Paradoxically, most Ch'orti's of this period (the height of the civil war) were reluctant to admit they spoke their native language because identifying themselves as *indios* or *indigenas* often became a death warrant. The first stage of revitalization was linguistically significant because the technical linguists were forced to choose a standard among the several dialects of Ch'orti' for their grammars and dictionaries. Additionally, the indigenous community began to realize that their variety of speech was a real "language" and had a structure of its own. The trend toward simplification of the language that can be seen in texts prior to the 1980's—loss of verb tense and aspect markers, loss of subordination, and a shift from synthetic to analytic structure—began to reverse, not to previous structural characteristics, but to innovative ones.

The second stage of revitalization started in 1990 with the founding of the *Academia de Lenguas Mayas de Guatemala* (ALMG). The twenty-one distinct Mayan language groups throughout the country, including the Ch'orti', voted officially on a phonetic alphabet system that would be uniform and suitable for all the languages. ALMG actively promotes revitalization of the languages and has written new bilingual grammars, dictionaries, and stories for use in the schools. Recent scholarly research has led to the conclusion that the builders and rulers of some, if not all, the great pyramids of the Classic Period of 400–900AD spoke the ancestral language of Ch'orti' (Justeson and Campbell 1984; Robertson, Law, and Haertel 2010). Recognizing the significance of this language in the decipherment of Mayan hieroglyphs, speakers and non-speakers alike have become devoted to maintaining and preserving contemporary Ch'orti'. Revitalization can be seen in newly invented words based on real or imagined historical structures, an increase in variety and use of subordinate structures, and a purging of Spanish words. The efforts have not brought the ancient language back, but modern Ch'orti' is surviving.

### Bibliography

- Álvarez Ramírez, Juan, et al. 2004. *U'tirach e ojroner Maya Ch'orti': Gramática descriptiva Ch'orti'*. Guatemala City: Academia de Lenguas Mayas de Guatemala.
- Díaz Pérez, Lauro, et al. n.d. *Na'tanyaj xe' ayan taka e pak'ab'ob', tzijb'ab'ir tama ojronerob' Ch'orti' yi e castellano*. Guatemala City: Academia de Lenguas Mayas de Guatemala.

- Fought, John G. 1972. *Chorti (Mayan) texts (I)*. Philadelphia, PA: University of Pennsylvania Press.
- Fought, ——. 1984. "Choltí Maya: A sketch." In *Supplement to the handbook of Middle American Indians. Vol. 2: Linguistics*. Austin, TX: University of Texas Press.
- Hull, Kerry M. 2005. *A dictionary of Ch'orti' Maya, Guatemala*. FAMSI: online.
- Justeson, John S., and Lyle Campbell, eds. 1984. *Phoneticism in Mayan hieroglyphic writing*. Pub. No. 9. Institute for Mesoamerican Studies, SUNY Albany.
- Kaufman, Terrence. 1970. *Proyecto de alfabetos y ortografías para escribir las lenguas mayances*. Antigua, Guatemala: Proyecto Lingüístico Francisco Marroquín.
- Metz, Brent E. 2006. *Ch'orti'-Maya survival in Eastern Guatemala: Indigeneity in transition*. Albuquerque, NM: University of New Mexico Press.
- Metz, —, Cameron L. McNeil, and Kerry M. Hull, eds. 2009. *The Ch'orti' Maya area: Past and present*. Gainesville, FL: University Press of Florida.
- Pérez López, Petronilo et al. n.d. *Ustayaj tz'ijb' te ojroner Ch'orti': Gramática normativa Ch'orti'*. 2009. Guatemala City: Academia de Lenguas Mayas de Guatemala.
- Pérez Martínez, Vitalino. 1994. *Gramática del idioma Ch'orti'*. Antigua, Guatemala: Proyecto Lingüístico Francisco Marroquín.
- Pérez Martínez, ——. 1996. *Leyenda Maya Ch'orti'*. Antigua, Guatemala: Proyecto Lingüístico Francisco Marroquín.
- Pérez Martínez, — et al. 1996. *Diccionario del idioma Ch'orti'*. Antigua, Guatemala: Proyecto Lingüístico Francisco Marroquín.
- Quizar, Robin. 1994. "Motion verbs in Ch'orti'." *Función (Universidad de Guadalajara, México)*: 15-16, 211-229.
- Quizar, ——. 1994. "Split ergativity and word order in Ch'orti'." *International Journal of American Linguistics*, 60(2): 120-138.
- Quizar, —, and Susan Knowles-Berry. 1988. "Ergativity in the Cholan languages." *International Journal of American Linguistics*, 54(1): 73-95.
- Robertson, John S., and Danny Law. 2009. "Valency to aspect in the Ch'olan-Tzeltalan family of Mayan." *International Journal of American Linguistics*, 75(3): 293-316.
- Robertson, —, Danny Law, and Robbie A. Haertel. 2010. *Colonial Ch'olti': The Seventeenth-Century Moran Manuscript*. Norman, OK: University of Oklahoma Press.
- Wichmann, Søren, ed. 2004. *The linguistics of Maya Writing*. Salt Lake City, UT: University of Utah Press.
- Wisdom, Charles. 1940. *The Chorti Indians of Guatemala*. Chicago, IL: University of Chicago Press.
- Wisdom, ——. 1950. *Materials on the Chorti language*. Chicago, IL: University of Chicago Microfilm Collection.

Arkadiusz Rojczyk<sup>1</sup>, Anna Balas<sup>2</sup>, Geoff Schwartz<sup>2</sup>

<sup>1</sup>University of Silesia, Poland, <sup>2</sup>Adam Mickiewicz University, Poland  
arkadiusz.rojczyk@us.edu.pl, abalas@wa.amu.edu.pl, geoff@wa.amu.edu.pl

## Immediate and distracted imitation in second-language speech: word boundary vowel hiatus in Polish English

Research on speech imitation has demonstrated that talkers who are asked to imitate a model talker converge on multiple acoustic features with this talker relative to their default productions (Babel 2012; Honorof et al. 2011; Pardo et al. 2012). This suggests that even native sound categories are labile and that talkers manipulate subphonemic properties of their speech as a result of exposure to another talker. Such imitative tendencies may also logically be predicted to occur in L2. It appears that shadowing after a native model talker may result in temporary readjustments of learners' productions to converge with the model.

In the current study we tested imitation of L2 speech with Polish learners of English for V#V sequences across word boundaries. In Polish such sequences are very often realised with full or partial glottalization (Schwartz 2013). In English, although glottalization may occur, traditional descriptions of hiatus refer to glide insertion and linking/intrusive /r/, which are associated with a modal voice quality (Britain and Fox 2009; Mompean and Gomez 2011). This cross-linguistic difference contributes to the foreign accentedness of Polish learners of English (Schwartz et al 2013). In the experiment, we used two types of imitation - immediate and distracted - to investigate if Polish learners can imitate non-glottalization of V#V sequences when shadowing the native-speaker model. Participants completed three tasks: (1) reading orthographic representation of phrases V#V sequences; (2) immediately shadowing after a recorded model (immediate imitation); (3) shadowing after a recorded model while being distracted by a cognitive task (distracted imitation), in which they were required to read a digit presented on the screen after exposure and prior to the onset of imitation.

The results were analysed in two ways. (1) if a different realization of vowel hiatus in English can be imitated by Polish learners. (2) to what extent immediate and distracted imitation contribute to convergence with the model talker in L2.

### References

Babel, Molly. 2012. Evidence for phonetic and social selectivity in spontaneous phonetic imitation. *Journal of Phonetics* 40: 177-189.

- Britain, David and Sue Fox. (2008). Vernacular universals and the regularisation of hiatus resolution. *Essex Research Reports in Linguistics* 57: 1-42.
- Honorof, Douglas. N., Jeffrey Weihing and Carol A. Fowler. (2011). Articulatory events are imitated under rapid shadowing. *Journal of Phonetics* 39: 18-38.
- Mompean, Jose and Alberto F. Gomez. (2011). Hiatus resolution strategies in non-rhotic English: The case /r/-liaison. *Proceedings of the 17th International Congress on Phonetic Sciences (ICPhS)*. Hong Kong.
- Pardo, Jennifer S., Rachel Gibbons, Alexandra Suppes and Robert M. Krauss. (2012). Phonetic convergence in college roommates. *Journal of Phonetics* 40: 190-197.
- Schwartz, Geoff. (2013). Vowel hiatus at Polish word boundaries – phonetic realization and phonological implications. *Poznan Studies in Contemporary Linguistics* 49 (4). 557-585.
- Schwartz, Geoff, Anna Balas and Arkadiusz Rojczyk. (2013). The challenge of L2 sandhi – hiatus resolution in Polish English. Paper presented at Eurosla 23, Amsterdam.

## Marta Ruda

Jagiellonian University in Kraków, Poland  
 marta.ruda@uj.edu.pl

### LF Copying in the Absence of Ellipsis: the Case of E-Type Readings of Weak Pronouns in Polish

**Background and main claim:** A growing body of studies devoted mostly to East Asian languages analyses phonetically null arguments via the application of LF copying of an antecedent NP and inserting the copied structure into the position of the null argument (cf., a.o., Aoun and Li 2008, Oku 1998, Saito 2007, Sato in press, Şener and Takahashi 2010). The present paper argues that the operation of LF copying has a wider application for the purpose of interpreting arguments than the elliptical environments and shows how analysing some non-elliptical structures in terms of LF copying can explain an otherwise puzzling set of data and can help shed light on the nature of the operation of LF copying itself.

**Empirical problem:** Weak pronouns (in the sense of Cardinaletti and Starke 1999) in Polish manifest an intriguing pattern of agreement in  $\phi$ -features with their antecedents when the grammatical gender of the antecedents differs from their natural gender. In particular, when a weak pronoun is used endophorically, agreement with either grammatical or natural gender is possible (cf. (1), where the noun *babsztyl* ‘old cow/virago’ is grammatically masculine but refers to a female), but in the E-type reading contexts (the pronoun of laziness (cf. (2)), donkey anaphora, the paycheck context, and the quantificational and modal subordination

structures), agreement in grammatical gender is the only option compatible with the E-type interpretation (cf. also Wechsler 2006 for some Serbo-Croatian data):

- (1) [Ten babsztyl]<sub>i</sub> jest okropny. Tylko prezes ?go<sub>i</sub>/ ją<sub>i</sub> lubi.  
 this<sub>M,SG</sub> virago<sub>M</sub> is horrible<sub>M,SG</sub> only CEO him<sub>ACC</sub> her<sub>ACC</sub> likes  
 ‘This old cow is horrible. Only the CEO likes her.’
- (2) Każdy morderca poślubił babsztyla<sub>i</sub>, a później go<sub>i</sub>/ ją<sub>i</sub> zabił.  
 every murderer married virago<sub>M</sub> and later him<sub>ACC</sub> her<sub>ACC</sub> killed  
 ‘Every murderer married an old cow and then killed her.’

**Analysis:** Following Willim’s (2012) proposal that the categorising *n* heads contain [Number], [Gender], and [Case] in Polish and that nouns such as *babsztyl* ‘old cow/virago’ are composed by the merge of a root (e.g. *bab-*) with a feminine categorising *n* head, followed by the merge of the resulting *nP* with a categorising *n* head contributing grammatical gender (hence can be represented as feature sets such as {*n<sub>M</sub>*, {*n<sub>F</sub>*, *bab-*}}, I propose that the asymmetry observed in (1)-(2) can be accounted for in terms of LF copying. More specifically, the E-type readings arise as a result of the copying of the LF representation of the antecedent (e.g. *babsztyla* ‘old cow/virago’ in (2)) and inserting the copy into the position of the weak pronoun. I suggest further that weak pronouns are represented in syntax by the *n* heads used intransitively (i.e. they are {*n<sub>M</sub>*} or {*n<sub>F</sub>*}). The insertion process can be formalised as the union of the sets constituting the copy of the antecedent and the pronoun (e.g. {*n<sub>M</sub>*, {*n<sub>F</sub>*, *bab-*} } ∪ {*n<sub>M</sub>*} = {*n<sub>M</sub>*, {*n<sub>F</sub>*, *bab-*} } or {*n<sub>M</sub>*, {*n<sub>F</sub>*, *bab-*} } ∪ {*n<sub>F</sub>*} = {*n<sub>M</sub>*, *n<sub>F</sub>*, {*n<sub>F</sub>*, *bab-*} } for *go* ‘him<sub>ACC</sub>’ and *ją* ‘her<sub>ACC</sub>’ in (2), respectively). This process leads to a well-formed structure only when the pronoun matches the antecedent in grammatical gender, as otherwise information encoded in the resulting structure is incoherent, for example the set {*n<sub>M</sub>*, *n<sub>F</sub>*, {*n<sub>F</sub>*, *bab-*} } requiring that both *n<sub>M</sub>* and *n<sub>F</sub>* apply to the set {*n<sub>F</sub>*, *bab-*} in the process of interpretation. The discussion in this paper thus shows that LF copying can be taken to apply outside of the domain of elliptical structures and provides insight into the process governing the application of this operation beyond what can be learned from null argument data.

## References

- Aoun, Joseph and Yen-hui Audrey Li. 2008. “Ellipsis and missing objects.” In *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, edited by Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta, 251–273. Cambridge, MA: MIT Press.
- Cardinaletti, Anna and Michal Starke. 1999. “The typology of structural deficiency.” In *Clitics in the Languages of Europe*, edited by Henk van Riemsdijk, 145–233. Berlin: Mouton de Gruyter.
- Oku, Satoshi. 1998. “A Theory of Selection and Reconstruction in the Minimalist Perspective.” PhD diss., University of Connecticut.
- Saito, Mamoru. 2007. “Notes on East Asian argument ellipsis.” *Language Research* 43: 203–227.

- Sato, Yosuke. In press. "Argument ellipsis in Colloquial Singapore English and the Anti-Agreement Hypothesis." *Journal of Linguistics*.
- Şener, Serkan and Daiko Takahashi. 2010. "Ellipsis of arguments in Japanese and Turkish." *Nanzan Linguistics* 6: 79–99.
- Wechsler, Stephen. 2006. "Why are the lazy so agreeable?" In *Between 40 and 60 Puzzles for Krifka*, edited by Hans-Martin Gärtner, Sigrid Beck, Regine Eckardt, Renate Musan, and Barbara Stiebels. <http://www.zas.gwz-berlin.de/fileadmin/material/40-60-puzzles-for-krifka/pdf/wechsler.pdf>.
- Willim, Ewa. 2012. "On the feature valuation/interpretability biconditional in Minimalist Theory. The case of (un)interpretable gender." In *Sound, Structure and Sense. Studies in Memory of Edmund Gussmann*, edited by Eugeniusz Cyran, Henryk Kardela, and Bogdan Szymanek, 761–806. Lublin: Wydawnictwo KUL.

## Geoff Schwartz

Faculty of English, Adam Mickiewicz University in Poznań, Poland  
 geoff@wa.amu.edu.pl

### All gradience is not created equal

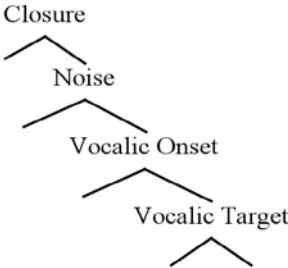
Much has been made of the gradient properties of speech, which have been invoked as evidence both for and against abstract phonological representations. Yet what seems to be missing are attempts to characterize and categorize gradience. In other words, to my knowledge the following question has not been addressed: does gradient phonetic detail come in different varieties with different perceptual effects, and how, if at all, are such differences related to phonological feature categories? In this presentation I would like to suggest that gradient detail associated with manner of articulation is different in nature from gradience associated with place and laryngeal specifications, and present a phonological framework in which this idea is implemented.

Gradient spectral information is found in the resonance properties of the vocal tract. For instance, two instances of a vowel such as /u/ may show a difference in F2 frequency resulting from phonetic context, speech rate, or other factors. Temporal gradience may be observed in laryngeal contrasts and quantity distinctions; voice onset time (VOT) in stops shows differences on the basis of consonant place of articulation and vocalic context, among countless other factors. Both place and laryngeal gradience may be quantified on a single scale, either spectral or temporal. Conversely, manner contrasts are reflected primarily in the interaction of two scales. For example, primary cues for a number of manner contrasts include amplitude rise

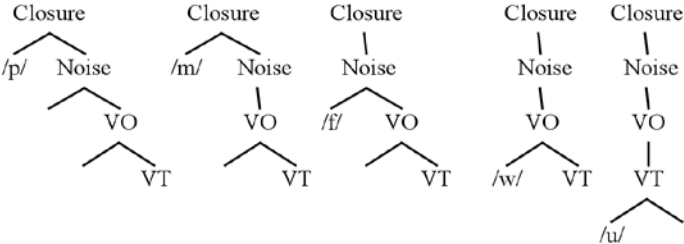
time (Johnson 1997) and formant rise time (Nittrouer & Studdert-Kennedy 1986). That is, manner perception requires the listener to compute the ratio between two scales. Consequently, we might expect less perceptual sensitivity to phonetic detail in the discrimination of manner contrasts, and suggest that manner represents an inherently more ‘phonological’ specification than place and laryngeal features.

The privileged status of manner for phonology is implemented in the Onset Prominence representational environment (OP; Schwartz 2013), in which prosodic constituents and segmental representations are constructed from the same representational hierarchy (1). Manner of articulation, incorporating sonority and consonantal strength, is encoded in terms of the active (binary) nodes in the a given segmental tree. This is shown in (2), which provides structures for a labial stop, nasal, fricative, approximant, and vowel. The segmental symbols are shorthand for place and laryngeal specifications, which we claim to be a primary locus of gradient detail in the phonetics-phonology interface. We will explore the empirical implications of this model for a variety of phonological issues, with particular focus on phonotactics and consonant lenition. The OP framework allows for a purely phonological perspective on what is often called ‘phonetic implementation’, allowing for a minimalist phonetics-phonology interface (Harris 2004) in which phonetic detail may nevertheless be expressed.

(1) The Onset Prominence representational hierarchy



(2) Manner of articulation in the OP environment





## References

- Harris, J. 2004. Release the captive coda: the foot as a domain of phonetic interpretation. In J. Local, R. Ogden & R. Temple (eds.), *Phonetic interpretation: Papers in Laboratory Phonology 6*, 103-129. Cambridge: Cambridge University Press.
- Johnson, K. 1997. *Acoustic and auditory phonetics*. Oxford: Blackwell
- Nittrouer, S. & M. Studdert-Kennedy. 1986. The stop-glide distinction: Acoustic analysis and perceptual effect of variation in syllable amplitude envelope for initial /b/ and /w/. *Journal of the Acoustical Society of America* 80:1026-1029.
- Schwartz, G. 2013. A representational parameter for onsetless syllables. *Journal of Linguistics* 49 (3). 613-646.

## Chao-Kai Shih

National Tsing Hua University, Taiwan  
caillet56@hotmail.com

## On Restructuring in Takibakha Bunun

This paper deals with the restructuring phenomenon in *Takibakha Bunun*, an Austronesian language spoken in Taiwan, and proposes a more articulated structure for  $\nu P$ . See (1) and (2).

**Findings:** First, the class of the restructuring predicates (RP) in Takibakha includes adverbial heads, aspectual verbs, part of the “subject-control” lexical verbs. The core criteria identifying an RP in Takibakha are (A) “long distance” A-movement, (B) obligatory pronoun fronting, (C) no embedded Tense-Aspect specification, (D) no embedded structural Case (no ABS-marked DP) and (E) no embedded complementizer (linker *tu*). Second, an asymmetry on V2 morphology is observed between AV and NAV RPs; specifically, “low” applicative *-an* (in the sense of Pytkäinen (2008)) and PV morphology are allowed on the V2 of AV RPs whereas only AV morphology and applicative *is-* are licensed on the V2 of NAV RPs. See (3-4). Also, it is argued that in Takibakha the verbal complement (RC) of AV RPs may be headed by a phase head Voice<sup>0</sup> introducing an external argument (EA) while the RC of NAV RPs is an EA-less  $\nu P$ , which is evidenced by the insertion of agent-oriented adverbials, the occurrence of overt EA, the embedding of causative predicates and voice marking on V2, (cf. Wu’s (2013) VP analysis for *Isbukun Bunun*). See (5-6). The defective EA-less  $\nu$  cannot value Case (Burzio’s Generalization), which is why the lowest DO enters into Agree relation with the upper T, as in (1b).

**Proposals:** This asymmetric complementation between AV and NAV RPs can be accounted for by Wurmbrand’s (2013) voice incorporation analysis with an

expanded version of her light verb typology. Specifically, we assume that i)  $v_{ERG}$  hosts  $[i-\phi, i-v]$  since NAV not only introduces an EA but also values inherent Case, and that ii) the  $v_{AV}$  bears only  $[i-v]$  since AV may be transitive or intransitive. If the  $v_{ERG}$  of V1 merges and values  $[u-\phi, u-v]$  on  $v_{RC}$ , incorporation is triggered. After the  $\phi$ -features of  $v_{RC}$  are valued by  $v_{ERG}$ , the subject dependency is established. Furthermore, Takibakha chooses the option of spelling out the lower copy at PF; hence the so-called “AV-only” restriction on V2 of NAV RP (1b), a reflex of the unvalued copy. On the other hand, if the  $v_{AV}$  of V1 merges,  $[u-\phi]$  on  $v_{RC}$  cannot be merged and hence crash, which is why the defective  $vP$  merges with  $v_{ERG}$  instead of  $v_{AV}$ ; if the  $v_{AV}$  of V1 merges and probes  $v_{AV}$  of V2, the features are all valued but incorporation is not triggered due to the incomplete feature set of  $v_{AV}$ , which is why restructuring occurs in NAV context rather than AV context. In addition to voice incorporation, the restriction on V2 verbal morphology can be captured straightforwardly by the obligatory control condition and the proposed  $vP$ -internal structure, as in (2).

**Concluding remarks:** Our study supports V raising analysis rather than VP fronting analysis for the derivation of Takibakha verb-initial clauses. Besides, our study argues against Pykkänen’s (2008) merging “low” applicatives below VP. Also, our study argues against Rackowski & Richards’s (2005) Case Agreement analysis, under which verbal morphology is dependent upon Agree between the shifted DP and T.

- (1) a. 'asa ka bali<sub>i</sub> [ma<sub>i</sub>-baliv/\*baliv-un<sub>i</sub> i 'iskán<sub>i</sub>].  
 AV.want ABS PN AV-buy/buy-PV IC fish  
 'Bali wants to buy fish.'
- b. 'asa-un i bali<sub>i</sub> a 'iskán<sub>i</sub> [ma<sub>j</sub>-baliv/\*baliv-un<sub>i</sub> t<sub>i</sub>].  
 want-PV IC PN ABS fish AV-buy/buy-PV  
 'Bali wants to buy the fish.'
- (2) [<sub>voiceP</sub> EA [<sub>voice'</sub> Voice<sup>o</sup> [<sub>AppIP</sub> (10) [<sub>Appl'</sub> Appl<sup>o</sup> -an [<sub>vP</sub> v<sup>o</sup> [<sub>AppIP</sub> Appl<sup>o</sup> ex /s- [<sub>VP</sub> V DO]]]]]]]]]]
- (3) a. 'asa=cak<sub>i</sub> [kilim-un<sub>i</sub> i bali<sub>i</sub>].  
 AV.want=1S.ABS search-PV IC PN  
 'I want for Bali to look for me.'
- b. 'asa naip<sub>i</sub> ['aiv-an<sub>i</sub> cui].  
 AV.want 3S.ABS give-APPL money  
 'He wants to be given money.'
- (4) 'asa-un cia<sub>j</sub> ka cui<sub>i</sub> ['is<sub>i</sub>-'aiv/\*'aiv-an<sub>k</sub> (bali'<sub>k</sub>) t<sub>i</sub>].  
 want-PV 3S.IC ABS money APPL-give/give-APPL PN  
 'He wants to give the book to Bali.'
- (5) a. 'asa=cak<sub>i</sub> [pa<sub>i</sub>-hanat ciatun<sub>j</sub> sanglav].  
 AV.want=1S.ABS AV.CAUS-cook 3S.IC vegetables  
 'I want him to cook vegetables.'

- b. 'asa-'u=ku<sub>i</sub> naip<sub>i</sub> [pa<sub>i</sub>-hanat t<sub>j</sub> sanglav].  
 want-PV=1S.IC 3S.ABS AV.CAUS-cook vegetables
- (6) a. 'asa=ku [maqasmav sadu hung].  
 AV.want=1S.ABS AV.diligent AV.see books  
 'I want to read books diligently.'
- b.\*'asa-'u=ku ka hung(=di) [maqasmav sadu t<sub>i</sub>].  
 want-PV=1S.IC ABS book=this AV.diligent AV.see

### Cited References:

- Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, Mass.: MIT Press.
- Rackowski, Andrea. and Norvin Richards. 2005. Phase edge and extraction: a Tagalog case study. *Linguistic Inquiry* 36: 565-599.
- Wu, H.-H. Iris. 2013. Restructuring and Clause Structure in Isbukun Bunun. *Oceanic Linguistics* 52.1:36-52.
- Wurmbrand, Susi. 2013. Complex predicate formation via voice incorporation. Ms. [<http://ling.auf.net/lingbuzz/001968>]

## Chao-Kai Shih and Atul Manqoqo

National Tsing Hua University, Taiwan; National Hsinchu University of Education, Taiwan  
 caillet56@hotmail.com; auturs2222@yahoo.com.tw

### Merging Applicatives in Takibakha Bunun

Different from most of the previous studies on the applicatives in Formosan languages which focus on the extraction and encoding properties (Chen 2007, Chang 2011, inter alia), our study deals with the syntactic restrictions on applicativization in *Takibakha*, which belongs to the northern dialects of Bunun and is one of the Austronesian languages spoken in Central Taiwan.

It is found that: (A) the applied arguments (AO) always bear ABS (an asymmetric language), as in (1); (B) the occurrence of applicatives is illicit in the AV(Actor Voice) and PV (Patient Voice) contexts, as in (2-3); (C) the multiple applicatives introduce only one additional argument, as in (4a-b); (D) the attachment of the multiple applicatives on the typical ditransitive verbs is banned, as in (5); (E) an applicative may introduce no additional argument, as in (6). What is more, (1) and (6) show that McGinnis' (2001) phase-based account does not work here.

(E) falls out of scope of Pykkäinen's (2008) theory but is captured straightforwardly by Georgala's (2012) theory, according to which a thematic Appl introduces an additional argument while a raising/expletive Appl introduces no additional argument but serves as a licenser for the highest eligible DP selected by the lexical verb. (D) is also accounted for under Georgala's proposal; specifically, merging two expletive ApplPs results in the double licensing of the recipient argument. Furthermore, it will be argued that the multiple applicatives in (4a) actually consist of a thematic Appl, *-an*, and an expletive Appl, *is-*.

It is further proposed that the puzzling (A-C) are attributed to the lack of Case feature on Appl and the T-Type ergativity of Takibakha. First, according to Aldridge (2004), in a T-type ergative language the absolutive case is uniformly valued by T whereas  $\nu$  cannot value structural Case. An AO must be fronted and agrees with T because its Case feature cannot be valued by  $\nu$  and Appl, which accounts for (A). In a sentence involving two AOs, the external argument (EA) receives inherent Case (IC) from  $\nu$ , the direct object (DO) receives IC from V and the highest AO agrees with T, yet the Case feature of the other AO is left unvalued since  $\nu$  and Appl cannot value Case in this language and hence crash; this accounts for (C). Along the same vein, in an AV sentence involving an AO, EA agrees with T and DO receives inherent Case from V while the Case of this AO is left unchecked since  $\nu$  and Appl cannot value Case; on the other hand, if an AO is merged in a PV sentence, EA receives inherent Case from  $\nu$  and DO is fronted to the edge of  $\nu$ , entering Agree relation with T, but again the Case of AO is left unvalued; this accounts for (B).

- (1) a. 'is-kulut zaku      ka    via' i            titi.  
       APPL-cut 1S.IC      ABS knife IC            meat  
       'I cut meat with the knife.'
- b.\* 'is-kulut zaku      ka            titi            ki            via'.  
       APPL-cut 1S.IC      ABS            meat            IC            knife
- (2) a. ma-kulut=cak            I    titi.  
       AV-cut=1S.ABS IC meat  
       'I am cutting meat.'
- b.\* ('is-)ma-kulut=cak i            via'            i            titi.  
       APPL-AV-cut=1S.ABS IC            knife            IC            meat
- (3) a. na=kulut-un            zaku            ka            titi.  
       FUT-cut-PV            1S.IC            ABS            meat  
       'I will cut the meat.'
- b.\* na=('is-)kulut-un zaku            ka            titi            ki    via'.  
       FUT-APPL-cut-PV    1S.IC            ABS            meat            IC knife

- (4) a. 'is-baliv-an zaku ka bali' i hung.  
 APPL-buy-APPL1S.IC ABS PN IC book  
 'I bought Bali a book.'
- b.\* na='is-kulut-an zaku ka via' I pit'e'an i titi.  
 FUT-APPL-cut-APPL 1S.IC ABS knife IC kitchen IC meat
- (5) (\*is-)'aiv-an i 'atul a bali' i hung.  
 APPL-give-APPL IC PN ABS PN IC book  
 'Atul gave Bali a book.'
- (6) 'is-'aiv i 'atul a hung i bali' .  
 APPL-give IC PN ABS book IC PN  
 'Atul gave the book to Bali.'

### Cited References

- Aldridge, Edith. 2004. Ergativity and word order in Austronesian languages. Doctoral Dissertation, Cornell University.
- Chang, Henry Y. 2011. Triadic encoding in Tsou. *Language and Linguistics* 12.4: 799-843.
- Chen, Sih-Wei. 2007. Applicative constructions in Atayal. MA thesis, National Tsing Hua University, Taiwan.
- Georgala, Effi. 2012. Applicatives in their Structural and Thematic Function: A Minimalist Account of Multitransitivity. Doctoral Dissertation, Cornell University.
- McCinnis, Martha. 2001. Variation in the phase structure of applicatives. *Linguistic Variation Yearbook* 1:105-146.
- Pylkkänen, Liina. 2008. *Introducing arguments*. Cambridge, Mass.: MIT Press.

## Radek Šimík and Marta Wierzba

University of Potsdam/SFB632, Germany  
 simik/wierzba@uni-potsdam.de

### Formal expression of information structure: experiments and modeling

We present a crosslinguistic study about the formal expression (word order, prosody) of information structure in Czech/Cz, Polish/Po, and Slovak/Sl. We ran/will run a number of acceptability judgment experiments in these languages. We analyze the results using standard statistical methods and propose a formal model of the results using Linear Optimality Theory. On a theoretical level, our results shed light on the possibility or necessity of phenomena like scrambling and stress shift under certain information structural conditions, e.g. scrambling of given, new, or focused objects, or stress shift to a new vs. contrastive verb.

**Experiments** All experiments have a Cz, Po, and Sl mutation. Each experiment consists of a series of short dialogs presented audiotively (on headphones). The participants' task was to rate the acceptability of the response in the context of the initial utterance by pressing a number (on computer keyboard) from 1/totally unacceptable to 9/totally acceptable. We report normalized z-scores. So far, 40 speakers of Cz and Po took part. **Exp 1** involved two factors: i. position of direct object/O relative to the subject/S, verb/V, and a PP in the response (4 levels: SVPP0, SVOPP, SOVPP, OSVPP), ii. definiteness of the object (2 levels: definite O, indefinite O). All responses were all-new utterances, which was induced by the context (e.g. 'What did you read in the newspaper?'), and involved default/rightmost sentence stress. Main result (Fig. 1): in both Cz/Po preverbal O is less acceptable than postverbal O. Interpretation: a penalty on new O scrambling (\*MOVE-NEW). **Exp 2** involved two factors: i. the same as in exp 1, ii. givenness of the subject/S (2 levels: given S, new S). Givenness is understood as having been mentioned in the preceding discourse. All responses involved given and referential objects and default stress. Main results (Fig. 2): in Po SVOPP is most acceptable; in Cz all word orders except SVPP0 are equally well acceptable. Interpretation: in both Cz/Po given O carrying sentence stress is penalized (DESTRESS-GIVEN); Po has a general penalty on scrambling (\*MOVE); Cz has no penalty on scrambling of given constituents. **Exp 3** involved three factors: i. word order (2 levels: VO, OV), ii. sentence stress (2 levels: stress on O, stress on V), iii. context (3 levels: O given/V new, O given/V contrastive, O focused/V given). Main results: in Cz scrambling of given O is optimal, in Po given O in situ and stress shift to V is optimal (Fig. 3a); in both Cz/Po focused O is optimal if in situ (Fig. 3b). Interpretation: clear tendency for rightmost stress (nuclear stress rule/NSR) in Cz but not in Po; general penalty on scrambling in Po (\*MOVE) but not in Cz.

**Modeling** We model the results using Linear Optimality Theory (Keller 2000), which enables one to capture gradient acceptability. Each constraint is assigned a numeric weight (from 0 to 1) representing the acceptability decrease in case it is violated. Violations are cumulative. We propose the following constraints: \*MOVE-NEW (weight 0.5 in both Cz/Po): violated if a new expression moves, \*MOVE (0.5 in Po, 0.0 in Cz): violated if an expression moves, DESTRESS-GIVEN (1.0 in Cz/Po): violated if a given expression is stressed, NSR (0.5 in Cz, 0.0 in Po): violated if stress is not rightmost, V-CONTR (0.5 in Cz/Po): violated if a stressed verb is not contrastive.

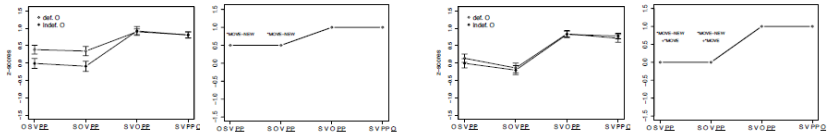


Fig. 1: experimental results compared to the predictions of the model for Cz (two plots to the left) and Po (two plots to the right); in an all-new context, there is a slight penalty for preverbal objects in Czech (modeled by a violation of \*MOVE-NEW) and a stronger penalty in Polish (modeled by cumulative violations of \*MOVE-NEW and \*MOVE).

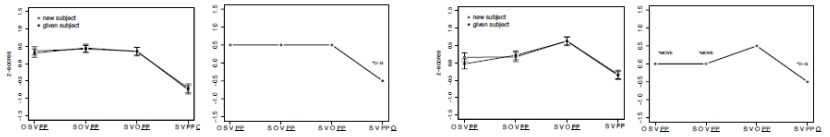


Fig. 2: when the object is given, there is a penalty for appearing in rightmost, stressed position in both languages (modeled by DESTRESS-GIVEN); only in Polish, there is also a small penalty for moving given objects (\*MOVE).

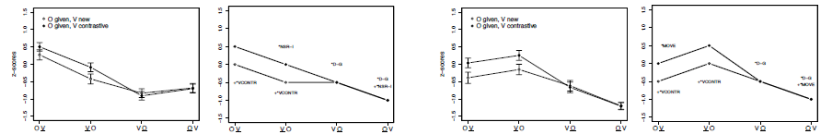


Fig. 3a: in Czech, scrambling a given object (OV) is better than leaving it in situ and shifting the stress to the verb (VO). This is modeled by requiring sentence stress to fall on rightmost element (NSR-I); in Polish, stress shift is better than scrambling (follows from \*MOVE).

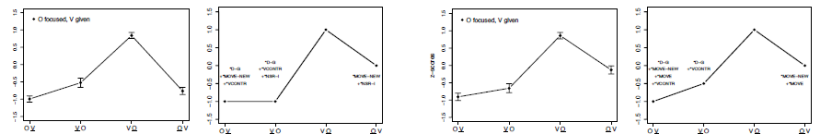


Fig. 3b: focused objects are best in situ in both languages (follows from constraints derived from the previous experiments); the results show, however, that scrambling them is less problematic in Polish than in Czech; this difference is not captured by the model yet.

## References

Keller, Frank. 2000. *Gradience in grammar*. Doctoral dissertation, University of Edinburgh.

## Radek Skarnitzl and Pavel Šturm

Institute of Phonetics, Faculty of Arts, Charles University in Prague  
{radek.skarnitzl|pavel.sturm}@ff.cuni.cz

### Czech Assimilation of Voicing in English as a Second Language

Czech and English are languages which differ quite substantially with respect to the implementation of the category of voicing. While we may observe a great degree of correspondence between phonological and phonetic voicing in Czech (Skarnitzl 2011), English phonologically voiced obstruents become partially or completely devoiced word-finally and at the beginning of stressed syllables (Ogden 2009, 99ff; Roach 2009, 26ff). The laryngeal adjustments required to achieve the contrast between fully and partially voiced obstruents are rather fine, suggesting that its acquisition in the context of foreign language learning will be difficult (Flege 1995). However, when these fine distinctions are combined with different strategies in English and Czech for the assimilation of voicing across the word boundary, the effect on native listeners may be more than negligible. The objective of this study is therefore to assess the way Czech students of English treat voicing of English obstruents in assimilatory contexts.

We examined newsreading of 12 Czech female students of English who had been previously classified as having a strong Czech accent, a mild Czech accent, or a near-native accent in English (four students were analyzed in each group). The presence or absence of voicing was extracted using a script in Praat (Boersma & Weenink 2013) in 11 equidistant steps throughout the obstruent. Several categorizations of voicing were used (Pirello et al. 1997; Smith 1997; Jesus & Shadle 2002), along with the *voicing profile* method, which treats voicing as a dynamic phenomenon (Möbius 2004).

Our results show that speakers with different degrees of Czech accent in their English do differ with regard to the realization of voicing in potentially assimilatory contexts. In phrases like *stayed put* (where the word-final obstruent is phonologically voiced and the following word-initial sound is voiceless), the near-native-like speakers preserved partial or full voicing to the greatest degree, while the strong-accented speakers produced over 75% of the items as completely voiceless. In phrases like *stayed better* (with a sequence of two phonologically voiced obstruents), our data reveal a tendency to partial devoicing in the near-native-like group, which again corresponds to native English productions, while the groups with some degree of Czech accent usually manifest full voicing throughout the word-final obstruent. Results are, unfortunately, less clear in phrases like *race driving* (with a sequence of a voiceless and voiced obstruent) due to the limited number of



occurrences of such phrases, but it remains the case that the near-native-like speakers' realizations approximate native realizations the most. In other words, these speakers produce the wrong "Czech" assimilation of voicing (that is, realizations like [reiz draɪvɪŋ]) the least.

The presentation will focus on the comparison of the above-mentioned quantification methods of the degree of voicing, as well as on various linguistic aspects such as the semantic status of the examined word.

### References

- Boersma, Paul and Weenink, David. 2013. *Praat: doing phonetics by computer* (Version 5.3.57). Accessed November 1, 2013. <http://www.praat.org>.
- Flege, James Emil. 1995. "Second language speech learning: Theory, findings, and problems." In *Speech perception and linguistic experience: issues in cross-language research*, edited by Winifred Strange, 233-277. Baltimore: York Press.
- Jesus, Luis M. T. and Shadle, Christine H. 2002. "A parametric study of the spectral characteristics of European Portuguese fricatives." *Journal of Phonetics* 30: 437-464.
- Ogden, Richard. 2009. *An introduction to English phonetics*. Edinburgh: Edinburgh University Press.
- Pirello, Karen, Blumstein, Sheila E., and Kurowski, Kathleen. 1997. "The characteristics of voicing in syllable-initial fricatives in American English." *Journal of the Acoustical Society of America* 101: 3754-3765.
- Roach, Peter. 2009. *English phonetics and phonology: A practical course*. Cambridge: Cambridge University Press.
- Skarnitzl, Radek. 2011. *Znělostní kontrast nejen v češtině*. Praha: Nakladatelství Epoque.
- Smith, Caroline L. 1997. "The devoicing of /z/ in American English: effects of local and prosodic context". *Journal of Phonetics* 25: 471-500.

## Daniela Slančová

Prešov University, Slovak Republic  
daniela.slancova@unipo.sk

## Linguistic picture of the world in incipient lexicon of Slovak-speaking children

The concept of *linguistic picture of the world* (LPW) was elaborated by Polish cognitive linguists (namely J. Bartmiński) and by a Czech team of linguists (Vaňková et al., 2005, Vaňková, 2007). It builds on the concepts of "natural world" and "natural language". The universal basis of the LPW is anthropocentric, corporeal/sensual and

socially and culturally conditioned. It is assumed that the cognitive and linguistic basis of the LPW originates in the childhood. This is the first study that investigates the LPW in a large sample of very young children and provides a detailed qualitative analysis.

The study addressed the following research questions: (i) What is the linguistic picture of the world in the beginnings of language acquisition of Slovak-speaking children? (ii) Are the main qualities of LPW derived from the adult language present in the incipient lexicon? (iii) Are there any gender differences in the LPW in that age?

The method is based on the analysis of linguistic material from the lexical part of the Slovak adaptation of MacArthur-Bates Communicative Development Inventory TEKOS I Slová a gestá (Test of Communicative Behavior I: Words and Gestures – Kapalková et al., 2010), containing 304 lexical items divided into 16 thematic groups. Parents were asked to fill in the checklist and choose from three options: i) child understands and speaks, ii) understands, iii) does not understand. The production, comprehension or no knowledge of a particular lexical item (conceptual word) was calculated for each month over the period of 8-16 months, separately for boys and girls. The words have been ranked according to the average percentage of their emergence. The first quarter of expressive lexicon (“understands and speaks”) was assumed to be the center, the last quarter a periphery of the lexical LPW, with a transitive area in between.

The research sample consisted of 330 boys and 323 girls, aged 8-16 months. The results show that the lexical center of the LPW in Slovak-speaking children is semantically coherent in the sense that the most frequent words from the incipient lexicon are grouped into following thematic groups:

- anthropocentric names from the family environment,
- names of animals and anthropoid toys,
- names concentrating on the concept of food (which can be understood as the reflection of corporality),
- social routines
- names reflecting motion and sound representing sensual perception.

They also represent the general qualities of LPW: anthropocentrism, sensuality, corporality and social relations.

The results also show that the LPW is gender-universal – the overlapping of the conceptual words in the central and peripheral area of boys and girls receptive as well as expressive lexicon is on average over 90%.

## References

- Kapalková, Svetlana et al. 2010. *Hodnotenie komunikačných schopností detí v ranom veku (s testami a normami)*. Bratislava: Slovenská asociácia logopédov.
- Vaňková, Irena et al. 2005. *Co na srdci, to na jazyku. Kapitoly z kognitivní lingvistiky*. Praha: Univerzita Karlova, Karolinum.
- Vaňková, Irena. 2007. *Nádooba plná řeči. Člověk, řeč a přirozený svět*. Praha: Univerzita Karlova, Karolinum.

## Lukas Sönning

University of Bamberg, Germany  
lukas.soenning@uni-bamberg.de

## Vowel reduction in German Learner English

Vowel reduction is a characteristic feature of stress-timed languages like English and German (Kohler 1995, Giegerich 1992). In unstressed syllables, vowels are reduced – they are articulated with a more central position of the tongue, a narrower jaw-opening and a loss of lip rounding (Delattre 1982). Acoustically, this is reflected in their duration and formant structure. This paper presents the results of an acoustic investigation of vowel reduction in German Learner English (GLE). The aim of the study is to identify patterns of interlanguage development; it thus investigates learners with different levels of language proficiency.

While English and German are both considered stress-timed, they differ regarding the quality of unstressed vowels. Vowel reduction is smaller in German, where the distribution of schwa is restricted: in polysyllabic lexemes, this is due to morpho(phono)logical constraints; in function words, vowel centralization is stylistically marked (Kaltenbacher 1998). The duration of unstressed vowels is reduced in both languages. A lack of vowel reduction is considered a characteristic feature of GLE (e.g. Parkes 2001) and appears to be a universal tendency in learner speech (Barry 2007). Instrumental investigations of this feature of GLE have applied rhythm metrics to quantify durational vowel reduction. A lack of reduction was found by Gut (2009). Ordin et al. (2011) were able to attribute inter-speaker variation to language proficiency, with the productions of advanced learners being more stress-timed. The reduction of vowel quality in GLE has so far not been investigated.

This study deals with two acoustic properties of unstressed vowels: duration and formant structure. A pilot study, which used a reading task for data elicitation, showed that advanced learners differ from native speakers in terms of vowel quality rather than duration. While there were no significant differences in

vowel duration, learners produced slightly higher  $F_1$  and markedly lower  $F_2$ , the difference in  $F_2$  being statistically significant for each learner. Since the quality of unstressed vowels showed a clear influence of orthography, a delayed repetition task (Flege et al. 1995) was selected for data elicitation in this study.

The current investigation into the developmental pattern of vowel reduction in GLE is carried out in the framework of Major's (2001) Ontogeny and Phylogeny Model of Second Language Acquisition (OPM), which focusses on the interplay of three components in interlanguage development: L1, L2 and universal (U) structures. The OPM claims that the presence of transferred L1 structures decreases over time, while the influence of U first increases and then decreases. Based on this model, a U-shaped development of vowel reduction in GLE might be expected: Initial transfer of L1 stress-timing properties facilitates vowel reduction; the increasing influence of U surfaces in an overarticulation of unstressed vowels; the degree of vowel reduction then increases in the final stages of interlanguage development.

## References

- Barry, William. 2007. "Rhythm as an L2 problem: How prosodic is it?" In *Non-native prosody: phonetic description and teaching practice*, edited by Jürgen Trouvain and Ulrike Gut, 97-120. Berlin: Mouton de Gruyter.
- Delattre, Pierre. 1981. "An acoustic and articulatory study of vowel reduction in four languages." In *Studies in comparative phonetics*, edited by Pierre Delattre, 63-93. Heidelberg: Julius Groos.
- Flege, James E., Murray J. Munro, and Ian R.A. MacKay. 1995. "Factors affecting strength of perceived foreign accent in a second language." *Journal of the Acoustical Society of America* 97 (5): 3125-3134.
- Giegerich, Heinz J. 1992. *English Phonology*. Cambridge: Cambridge University Press.
- Gut, Ulrike. 2009. *Non-native speech. A corpus-based analysis of phonological and phonetic properties of L2 English and German*. Frankfurt: Peter Lang.
- Kaltenbacher, Erika. 1998. "Zum Sprachrhythmus des Deutschen und seinem Erwerb." In *Eine zweite Sprache lernen*, edited by Heide Wegener, 21-38. Tübingen: Narr.
- Kohler, Klaus J. 1995. *Einführung in die Phonetik des Deutschen*. Berlin: Erich Schmidt Verlag.
- Major, Roy C. 2001. *Foreign accent: The ontogeny and phylogeny of second language phonology*. Mahwah: Erlbaum.
- Ordin, Mikhail, Leona Polyanskaya, and Christiane Ulbrich 2011. "Acquisition of timing patterns in second language." *Proceedings of INTERSPEECH 2011*, 1129-1132.
- Parkes, Geoff. 2001. *The Mistakes Clinic for German-speaking Learners of English*. Southampton: Englang.

## Balázs Surányi<sup>1,2</sup> and Veronika Hegedűs<sup>1</sup>

<sup>1</sup>Research Institute for Linguistics HAS, <sup>2</sup>Pázmány Péter Catholic University, Hungary  
balazs.suranyi@gmail.com, hegedus.veronika@nytud.mta.hu

### Complex predication in resultatives and depictives: A view from Hungarian

**Goals and claims:** This paper brings evidence from the empirically largely uncharted territory of resultatives and depictives in Hungarian to bear on some of the key issues in the cross-linguistic syntax of secondary predication. We argue that the following hold of Hungarian secondary predicates: (i) Resultative secondary predicates (RSP) and depictive secondary predicates (DSP) are distinguished structurally (pace Cormack & Smith 1999; Rothstein 2001, 2003, 2004). (ii) Weak resultatives (cf. Washio 1997) do not differ from strong resultatives in uniformly being adjuncts (contra Iwata 2006). The principal division is between those RSPs that form a complex predicate with the verb and those that do not. (iii) Most, though not all, DSPs are adjuncts and cannot form a complex predicate with the verb.

**Resultatives:** The immediately pre-verbal position in Hungarian is occupied by a narrow focus element or by some member of the so-called Verbal Modifiers (VM), which a.o. include verbal particles and bare NP arguments. Semantically, VMs are all of a predicative type (Komlósy 1994; É. Kiss 2006). The immediately pre-verbal slot they occupy is a syntactically derived position (É. Kiss 1994, 2002) associated with a special mode of semantic composition (Unification, Farkas & de Swart 2003) that combines the verbal predicate and the VM into a single complex predicate. In neutral sentences without a verbal particle, RSPs must occupy the VM slot (1), which suggests that they form a complex predicate together with the verb.

- (1) János            rongyosra    táncolta    (\*rongyosra)            a cipőjét  
John            ragged-sub    danced            ragged-sub            the shoe.his-acc  
'John danced his shoes ragged.'

RSPs remain post-verbal if the VM slot is occupied by a resultative verbal particle, forming a complex predicate together with the verb; see (2), where we analyze the particle to be the real RSP with the post-verbal resultative adjoined to it. Resultatives that do not raise to the VM position but remain post-verbal, as in (2), do not form a complex predicate with the verb.

- (2) János            be-            festette    a kerítést            pirosra.  
John            into-            painted    the fence-acc            red-sub  
'John painted the fence red.'

We bring independent evidence for this conclusion from *again*-modification (where the restitutive reading of *again* with RSPs in the VM position is unavailable

since the RSP cannot be selectively modified) and from discourse anaphora (NPs inside VM RSPs do not introduce discourse referents, however, post-verbal RSP NPs do). We show that weak resultatives do not differ in these respects from strong resultatives, as long as they occupy the VM position.

**Depictives:** DSPs do not raise to the VM position, suggesting that they do not form a complex predicate with the verb. We argue that those DSPs that do appear immediately pre-verbally are not in the VM position, but either function as a narrow focus, or as an adjunct preceding an unfilled VM position. As we show, DSPs generally disallow subextraction, which supports their analysis as adjuncts. We argue that this is the reason why they cannot form a complex predicate with the verb by raising to the VM slot: as we show, adjuncts are generally unable to do so. This account is corroborated by evidence from secondary predicates that act as complements in being obligatory (3), yet attest to being DSPs in bearing the case suffix typical of DSPs and unavailable to RSPs.

- (3) Péter \*(szárazon) hagyta a törölközőt.  
 Peter dry-sup left the towel-acc  
 ‘Peter left the towel dry.’

These complement DSPs, in contrast to adjunct DSPs, not only can but must appear in the VM position, where they enter complex predicate formation. In short, for DSPs, complex predicate formation depends on their adjunct vs. complement status.

## References

- Cormack, Annabel and Neil Smith. 1999. “Why are depictives different from resultatives?” *UCL Working Papers in Linguistics* 11: 251–286.
- É. Kiss, Katalin. 1994. Sentence structure and word order. In *The Syntactic Structure of Hungarian (Syntax and Semantics 27)*, edited by Ferenc Kiefer and Katalin É. Kiss, 1–90. New York: Academic Press.
- É. Kiss, Katalin. 2002. *The Syntax of Hungarian*. Cambridge: Cambridge University Press.
- É. Kiss, Katalin. 2006. “The function and the syntax of the verbal particle.” In *Event structure and the left periphery. Studies on Hungarian*, edited by Katalin É. Kiss, 17–56. Dordrecht: Springer.
- Farkas, Donka and Henriette de Swart. 2003. *The Semantics of Incorporation. From Argument Structure to Discourse Transparency*. Stanford: CSLI.
- Iwata, Seizi. 2006. “Argument resultatives and adjunct resultatives in a lexical constructional account: the case of resultatives with adjectival result phrases.” *Language Sciences* 28: 449–496
- Komlósy, András. 1994. “Complements and adjuncts.” In *The Syntactic Structure of Hungarian (Syntax and Semantics 27)*, edited by Ferenc Kiefer and Katalin É. Kiss, 91–178. San Diego/New York: Academic Press.

- Rothstein, Susan. 2001. *Secondary Predicates and Their Subjects*. Dordrecht: Kluwer.
- Rothstein, Susan. 2003. "Secondary Predication and Aspectual Structure." In *Handbook on Adjuncts*, edited by E. Lang, C. Fabricius-Hansen, and C. Maienborn. 553-590. Berlin: Mouton.
- Rothstein, Susan. 2004. *Structuring Events: A Study in the Semantics of Lexical Aspect*. Oxford: Blackwell.
- Washio, Ryuichi. 1997. "Resultatives, compositionality and language variation." *Journal of East Asian Linguistics* 6: 1-49.

## Jolanta Sypiańska and Adam Olander

Faculty of English, Adam Mickiewicz University, Poznań, Poland  
 jsypianska@wa.amu.edu.pl, oleadm@gmail.com

### Phonetic awareness in Polish learners of English

The terms 'phonological', 'phonemic' and 'phonetic' awareness are often treated synonymously by many authors (Piske 2008:156). Distinction is not made between 'metaphonological' and 'metaphonetic awareness' either (e.g. Wrembel 2011). Furthermore, phonological awareness is "the ability to reflect on and manipulate the sound components of spoken words", while phonemic awareness "refers to a focus on the phoneme" (Nicholson 1997: 53). While the above types of awareness have received considerable attention, phonetic awareness remains under-researched. To the best of the present authors' knowledge, the only definition was provided by García-Lecumberri (2001:238) who states that "(meta-)phonetic awareness can be described as the ability to reflect on and manipulate the sounds and sound system of a language independently of function and meaning [...]".

The authors follow García-Lecumberri's reasoning and treat phonetic awareness as separate from metaphonological and phonological awareness. However, since there is no existing methodology to measure phonetic awareness, the present authors propose a new tool which consists in phonetic transplantation (PT) that is carrying over the phonetics of one language onto the phonology of another language, in other words, making one language sound as another language. Thus, the aim of the present study was to verify the proposed tool's usefulness in taping phonetic awareness and investigate its conditioning by phonetic training. The research questions were: Is PT a good measure of phonetic awareness? Is it possible to tap phonetic awareness? (in a way that does not simply measure production in a given language) Is phonetic awareness dependent on phonetic training? If yes, then in what way.

The study included 11 Polish learners of English who were instructed first to read out Polish sentences, then to read them with an English accent and finally to read out English sentences. The words in focus were embedded in sentences of similar intonational pattern and phonetic context in all three speech types. The participants were grouped according to amount of phonetic training into fully trained, partially trained and naive learners. The phonetic features under study were Voice Onset Time (VOT) of word-initial voiceless plosives /p,t,k/, the first and second formant, F<sub>1</sub> and F<sub>2</sub>, of Polish /ɛ, i/ and their length. The results show that fully and partially trained subjects produced VOT in English and PT comparably to baseline data (Docherty 1992). Naive subjects also produced longer VOT in English and PT which, however, was much below the native level. In PT /e/ fully trained participants utilised both formants and vowel length, partially trained subjects used only formants and naive subjects turned primarily to vowel length. As regards /i/, the manipulation of vowel length was inversely proportional to the amount of phonetic training (both theoretical and practical).

To conclude, on the basis of the results it is claimed that the different behaviour of phonetically transplanted speech in relation to both Polish and English among the three groups provides evidence for the existence of phonetic awareness which is conditioned by formal phonetic training.

## References

- Docherty, Gerard J. 1992. The timing of voicing in British English obstruents, *Netherland Phonetic Archives* 9. New York: Foris.
- García Lecumberri, María L. 2001. "Phonetic awareness" In *Language Awareness in the Foreign Language Classroom* edited by D. Lasagabaster and J.M. Sierra, Servicio Editorial de la Universidad del País Vasco, Universidad del País Vasco.
- Nicholson, Tom. 1997. Phonological awareness and learning to read. In: L. van Lier and D. Corson (ed.), *Encyclopedia of Language and Education*, Volume 6, Knowledge about Language, Kluwer, Dordrecht.
- Piske, Thorsten. 2008. "Phonetic awareness, phonetic sensitivity and the second language learner." In *Encyclopedia of Language and Education (2<sup>nd</sup> edition)*, J. Cenoz and N.H. Hornberger, Vol. 6: *Knowledge about Language*. Springer, Berlin, 155-166.
- Wrembel, Magdalena. 2011. Metaphonetic awareness in the production of speech. *Multilingual matters, Volume Speaking and Instructed Foreign Language Acquisition*, Clevedon: 169-182.



## **Jakub Szewczyk and Zofia Wodniecka**

Jagiellonian University, Kraków, Poland  
jakub.szewczyk@gmail.com

### **Determinants of non-word repetition accuracy**

In this study we investigate the determinants of successful non-word repetition by 4-6 years old children. Non-word repetition tests are known to be good clinical markers of Specific Language Impairment in children, and thus finding out what factors underlie success in non-word repetition would help to elucidate the deficit.

To this aim we crafted 150 non-words, while controlling for a number of item-specific factors: length, transition probability between phonemes, syllables and subsyllabic elements (onsets, nuclei and codas), phonological neighborhood, number of sonority hierarchy violations, morphological typicality, and wordlikeness (as measured in a separate study on adults). We also measured children's age, their cognitive abilities and vocabulary size, as well as their parents' education level.

The results indicated that the major contributors to non-word repetition accuracy are: length and morphological typicality on the item-parameters side, and vocabulary size on side of child-related parameters. Overall, this result shows that children's successful non-word repetition relies on sublexical knowledge that likely encompasses the knowledge of perceptual (phonological) sublexical patterns, and motor plans for the articulation of sublexical phoneme sequences, as well as on the size of children's vocabulary size.

## **James Thomas**

Masaryk University, Brno, Czech Republic  
thomas@phil.muni.cz

### **Introducing Word Templates and their semi-automatic derivation from corpora**

A word template is a concise statement of a word's pattern of normal usage serving as the kernel of a clause. Neither a chunk nor a bundle, it expresses the clause's paradigmatic potential and syntagmatic structure as a string of grouped rationalised collocations and colligations.

Word templates revolve around noun + verb collocations. The syntactic roles of the two items in the collocation determine the other potential elements in

the template. Unlike work in transitivity, complementation and valency, word templates describe nouns as well as verbs. The patterns of normal usage of nouns deserves more attention than they have hitherto received, especially the abstract nouns used in academic prose. See for example, Gardner and Davies (2013).

To build a word template around a collocation, we can invoke the mantra of Functional Linguists:

who does what to whom under what circumstances

Starting with the collocation, *give lecture*, we can arrive at the following word template:

[Expert] gives a lecture [to students | fellow professionals] [on/about topic] [when | at event]

When fully realised in discourse, such a skeleton can be fleshed out with multi-word noun and verb groups and is grammatised with verbal aspect, modality, etc. Even in its skeletal form it has a satisfying psychological wholeness, and capable of invoking schematic knowledge.

To derive word templates from corpora, we use the Word Sketches that are generated from corpora by the Sketch Engine (Kilgarriff et.al.2004). These are single web pages consisting of tables of data about the search word. Each column is headed by a grammatical relationship e.g. Subject, under which its salient collocates are listed. These words can be clustered according to the similarity of their behaviour. The clusters are then named, e.g. Expert, Topic, Event, and become the semantic types used in the word template.

The current work is meant to be of value to language teachers and learners who benefit from several layers of linguistic activity at the same time. It is also of value to translators who are writing in their other language. In research terms, word templates are not unrelated to the structures of CxG, some aspects of frame semantics, and are observable in first language acquisition as children move beyond the two word stage.

But word templates are most closely related to the Pattern Grammar of Hunston and Francis (1996 & 1998), to the Collostructions of Gries and Stefanovitch (2003), and to the Hybrid n-grams of Wibble and Tsao (2010). However, the most significant contribution is the ongoing project, *Pattern Dictionary of English Verbs* by Hanks (2010 – 2014). His methodology and formalisms (Hanks 2012) have informed the development of the notion of word templates, albeit for different ends.

## References

- Francis, G., Hunston S. & Manning E. (1996) *Grammar Patterns 1: Verbs*. HarperCollins  
Francis, G., Hunston S. & Manning E. (1998) *Grammar Patterns 2: Nouns and Adjectives* Collins  
Gardner, D. and M. Davies (2013) *A New Academic Word List*. *Applied Linguistics* 35 1

- Hanks, P. (2013) *Lexical Analysis: Norms and Exploitations* MIT
- Hanks, P. (2012) How people use words to make meanings: semantic types meet valencies  
Input, Process and Product: Developments in Teaching and Language Corpora. (eds. Thomas, J., Boulton, A.)
- Kilgarriff, A., Rychly, P., Smrz, P., Tugwell, D. (2004) The Sketch Engine. *Euralex 2004*
- Stefanowitsch, A. & Gries Stefan Th. (2003) Collocations: Investigating the interaction of words and constructions *International Journal of Corpus Linguistics* 2 8
- Thomas, J.E. (forthcoming) Stealing a March on Collocation John Benjamins. [Studies in Corpus Linguistics] (eds. Agnieszka Leńko-Szymańska & Alex Boulton (eds). )
- Wible, David and Tsao, Nai-Lung (2010) StringNet as a Computational Resource for Discovering and Investigating Linguistic Constructions The NAACL HLT Workshop on Extracting and Using Constructions in Computational Linguistics, LA.

## Kateřina Veselovská and Jana Šindlerová

Charles University in Prague, Czech Republic  
{veselovskalsindlerova}@ufal.mff.cuni.cz

### Patterns of Evaluative Meaning: the Case of Opinion Target

In the long term, expressing evaluation is being perceived as one of the most important functions of language, since it is considered one of the fundamental elements construing interpersonal meaning, as it is minutely described e.g. within the tradition of systemic functional linguistics (see Halliday 1977). However, most of the linguistic theories dealing with evaluative meaning only take into consideration the lexical aspect of evaluative items. Although lexical indicators are undoubtedly very important when delimitating evaluative meaning and we are now able to describe and even automatically detect evaluative items e.g. by means of *sentiment analysis* (see Liu 2012), information about the presence of evaluation in a text is useless without us being able to determine who or what it is aimed at.

In this paper, we describe and generalize syntactic patterns of structures containing opinion targets, i.e. evaluated entities, taking into account their semantic properties. For this purpose, we take the advantage of the newly released subjectivity lexicon SubLex, containing 4626 Czech evaluative items (see Veselovská 2013). We implement these items into the Prague Dependency Treebank 2.0 (see Hajič et al. 2006) to extract the most typical structures in which the targets of evaluation appear.

Generally, evaluation is very often carried by the predicate verb (note that verbs represent the second most frequent part of speech in the Czech subjectivity lexicon). Therefore, targets are typically subjects or objects of the sentences. Since adjectives play a crucial role in evaluation, it is not surprising that frequently targets

appear in structures with verbonominal predicates: *Tento rok byl dobrý.* – *This year was good.* Evaluation in verbonominal predicate structures can also be expressed by a noun: *Je to katastrofa.* – *It is a disaster.* Syntactically, targets appear in structures with adverbial adjuncts (where the adverb serves as the evaluative item) and in NPs (containing evaluative adjective): *Jana zpívá nádherně.* – *Jana sings beautifully.* / *Přichází další dobrý rok.* – *Another good year is approaching.* Note that local sentiment-scopus patterns (like NPs with an evaluative adjective headed by target noun) have lesser impact on the overall sentiment than global sentiment-scopus (evaluative predicates with complement target nouns).

Syntactic patterning of evaluative constructions suggests that the structure of evaluative situation is tightly connected to verbal valency. Semantically, targets map to different verb arguments, most often to the so-called “inner participants” of the verb. Following Daneš and Hlavsa (1981) and the tradition of Functional Generative Description, we provide linguistic analysis of the most typical semantic patterns of evaluative verbs, using valency lexicon Vallex (Lopatková et al. 2008) – see Table 1. Based on these approaches, we categorize verbs according to the way they propagate sentiments to their arguments. We also argue that the verbs in question represent members of several neatly distinguished semantic classes, which can be therefore marked as “sentiment-sensitive”.

Apart from the valency point of view, we provide a concise analysis of other specific target-involving constructions, like non-equal gradable comparisons, equative comparisons and superlative comparisons or weakening clauses.

Verb class	Semantic realization of evaluative situation	Example sentences
Copular	ACT <sub>TARGET</sub> PRED <sub>copula</sub> PAT <sub>EVAL</sub>	Film byl nudný.
Copular	ACT <sub>TARGET</sub> PRED <sub>copula</sub> PAT <sub>EVAL</sub> ← RSTR <sub>EVAL</sub>	Topolánek není důvěryhodným premiérem.
Mental Action	ACT <sub>SOURCE</sub> PRED <sub>mental/communication</sub> PAT <sub>TARGET</sub> EFF/COMPL <sub>EVAL</sub>	Považuji tento film za ztrátu času.
Communication (complex predication)	ACT <sub>SOURCE</sub> PRED PAT <sub>EVAL</sub> ADDR <sub>TARGET</sub>	Voliči vyjádří podporu V. Klausovi.
Success/Failure	CRIT <sub>SOURCE</sub> ACT <sub>TARGET</sub> PRED <sub>EVAL</sub>	(Podle tisku) Jiří Paroubek selhal.
Success/Failure (complex predication)	CRIT <sub>SOURCE</sub> ACT <sub>TARGET</sub> PRED PAT <sub>EVAL</sub>	(Podle tisku) Jiří Paroubek udělal chybu.

Table 1: Examples of the most transparent semantic frames for evaluative constructions. Situational functions are marked using subscript, dependencies are marked with arrows.

## References

- Daneš, František and Zdeněk Hlavsa. 1981. *Větné vzorce v češtině*. Academia, Praha.
- Hajič, Jan et al. 2006. Prague Dependency Treebank 2.0. Linguistic Data Consortium, Philadelphia.
- Halliday, Michael Alexander Kirkwood. 1977. "Text as semantic choice in social contexts." Reprinted in full in *Linguistic Studies of Text and Discourse*. Volume 2 in the *Collected Works of M.A.K. Halliday*. Edited by J, J. Webster. London and New York: Continuum, 23–81.
- Liu, Bing. 2012. "Sentiment analysis and opinion mining." *Synthesis Lectures on Human Language Technologies* 5.1, 1–167.
- Lopatková, Markéta et al. (2008). *Valenční slovník českých sloves*. Univerzita Karlova v Praze, Nakladatelství Karolinum, Praha.
- Veselovská, Kateřina. 2013. "Czech Subjectivity Lexicon: A Lexical Resource for Czech Polarity Classification." In *Proceedings of SLOVKO, 7th International Conference of NLP, Corpus Linguistics and E-Learning*. RAM-Verlag, Lüdenscheid, Germany.

## Jacek Witkoś and Dominika Dziubała-Szrejbrowska

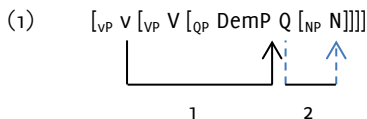
Adam Mickiewicz University in Poznań, Poland  
wjacek@wa.amu.edu.pl; dziubala@wa.amu.edu.pl

### The nominal non-phase: How the study of Polish nominals contributes to the phase theory

This contribution constitutes another element in the debate concerning the phase status of nominal projections, specifically in Slavic (cf. Bošković 2005, 2012; Matushansky 2005; Danon 2011; Carstens 2000; Rutkowski 2002 etc.). We intend to reach two objectives; first, we argue that certain case marking properties internal to Polish nominals show that they do not observe the Phase Impenetrability Condition (PIC), hence they do not yet function as phases at the derivational stage when the verbal projection is formed. Second, we provide a minimalist account of such case marking employing the notion of feature value sharing (Brody 1997; Pesetsky and Torrego 2007; Danon 2011) and admission of alleged phase internal countercyclicity (Chomsky 2001, 2008).

The relevant data base concerns the so-called Genitive of Quantification: in Polish, and a few other Slavic languages, numerals higher than five require the following nominal complement to appear in Genitive but only if these QPs are placed in positions of the structural case (nominative and accusative), e.g. *te pięć miłych aktorek* ([these five]<sub>NOM/ACC</sub> [nice actresses]<sub>GEN</sub> vs. *tym pięciu miłym aktorkom* ([these five nice actresses]<sub>DAT</sub>).

The typical account of this phenomenon (cf. Bobrowski 1998) involves an example of countercyclicity: as soon as the quantifier is assigned a structural case it forces its complement into the genitive form. Other accounts show considerable look-ahead (Przepiórkowski 1999; Rutkowski 2002; Baily 2004). This raises obvious problems for the phase-based derivation, on the assumption that maximal nominal projections are phases (cf. Bošković 2012):



On the strength of the PIC, at this stage of the derivation the complement to QP should no longer be available to processes of narrow syntax, as it does not occupy the position of the edge of the nominal phase (here QP). Yet, the derivational status of (1) changes if the maximal nominal projection (here QP) is not a phase, the PIC does not apply and the chunk of structure delimited by vP and NP constitutes a single derivational phase. Consequently, the relation between v and Q may lead to a shift of N into genitive, as phase internal countercyclic relations are allowed as long as their output (representation of the phase at the next phase level) meets the PIC (cf. Chomsky 2001, 2008). A potential counterargument to our proposal may treat the Genitive of Quantification as assigned as a default case by the morphological component on the PF branch of the derivation, when the NP in (1) is indeed out of the derivational window of the narrow syntax, hence the countercyclic and PIC-defective nature of the derivation in (1) may be only apparent. However, there is evidence that the NP is still accessible to narrow syntax as its sub-constituent, marked for genitive, remains in the active derivational workspace:

- (2) a. Spotkałam tych pięć miłych aktorek.  
met<sub>1SG.FEM}</sub>                      these<sub>GEN}</sub>                      five<sub>ACC}</sub>                      [nice  
 accesses]<sub>GEN}</sub>
- b. derivation with ‘tych’ in NP:  $[_{QP} \text{tych} \text{pięć} [_{NP} \text{tych} \text{miłych} \text{aktorek}]]$
- c.  $[_{TP} \text{tych} \text{pro} \text{spotkałam} [_{QP} \text{tych} \text{pięć} [_{NP} \text{tych} \text{miłych} \text{aktorek}]]]$

The Genitive form of the demonstrative originates within the NP (compare 2a with 1) and is subsequently moved to a position at the edge of the QP (cf. 2a-b), from which it can move further out of the nominal projection (cf. 2c). Thus the sequence of derivational steps for (2) appears to be: (i) valuation of Accusative on Q, (ii) valuation of Genitive on N and (iii) movement of the demonstrative pronoun (a sub-constituent of NP) to [specQ]. Now, for this sequence to hold NP cannot be spelled-out at stage (ii) and must be available for Attract, a core operation of narrow syntax. We conclude that QP cannot be a phase as in (1).

## References

- Bailyn, John Frederick. 2004. "The case of Q." In *Proceedings of Formal Approaches to Slavic Linguistics: The Ottawa Meeting 2003*, edited by Olga Arnaudova, 1-36. Ann Arbor, MI: Michigan Slavic Publications.
- Bobrowski, Ireneusz. 1998. *Gramatyka opisowa języka angielskiego. Zarys modelu generatywnego-transformacyjnego*. Kielce: Wyższa Szkoła Pedagogiczna im. Jana Kochanowskiego.
- Bošković, Željko. 2005. "On the locality of left branch extraction and the structure of NP." *Studia Linguistica* 59: 1-45.
- Bošković, Željko. 2012. "On NP and Clauses." In *Discourse and grammar: From sentence types to lexical categories*, edited by Gunther Grewendorf and Thomas E. Zimmermann, 179-242. Berlin: Walter de Gruyter.
- Brody, Michael. 1997. "Perfect chains." In *Elements of grammar*, edited by Liliane Haegeman, 139-167. Dordrecht: Kluwer Academic Publishers.
- Carstens, Vicki. 2000. "Concord in Minimalist Theory." *Linguistic Inquiry* 31: 319-355.
- Chomsky, Noam. 2001. "Derivation by phase." In *Ken Hale: A life in language*, edited by Michael Kenstowicz, 1-52. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 2008. "On Phases." In *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, edited by Robert Freidin, Carlos Peregrín Otero and María Luisa Zubizarreta, 133-166. Cambridge, MA: MIT Press.
- Danon, Gabi. 2011. "Agreement and DP-internal feature distribution." *Syntax* 14: 297-317.
- Matushansky, Ora. 2005. "Going through a phase." In *Perspectives on Phases*, edited by Martha McGinnis and Norvin Richards, 157-182. Cambridge, MA: The MIT Press.
- Przepiórkowski, Adam. 1999. Case assignment and the complement-adjunct dichotomy: A non-configurational constraint-based approach. [Ph.D. dissertation, Universität Tübingen].
- Rutkowski, Paweł. 2002. "The syntax of quantifier phrases and the inherent vs. structural case distinction." *Linguistic Research* 7: 43-74.

## Magdalena Zawrotna

Jagiellonian University, Krakow, Poland  
zawrotna@gmail.com

## Dysphemisms and Euphemisms in Egyptian Arabic – Form, Function and the Social Context

The presentation will discuss the problem of dysphemisms and corresponding euphemisms in the Egyptian dialect of Arabic (EA). The author will discuss the structure of particular linguistic forms, analyze their semantic basis and attempt at determining the social context of their use. The material chosen for the analysis

comes from the spoken language and it was collected during field research in February and March 2013.

Dysphemisms and euphemisms occupy an important place in pragmatic studies because they constitute a part of linguistic and social taboo. The taboo domain under investigation is body as well as its parts and physical functions. In order to study this, 60 indepth interviews were carried out. The interviewees were asked questions concerning their use of particular lexical items (about 50 items were selected) and the effect they elicit on a hearer. Another task was to provide euphemisms used in specified linguistic situation. This made it possible to determine the semantic fields that are most likely to become a basis of derogatory terms, as well as rank them in order of increasing perlocutionary force. The interviews allowed the answer to the question about social motivation of derogatory terms and conditions/constraints of their use.

Additionally, some productive grammatical structures used to create pragmatically active derogatory terms were determined.

On the other hand, a large number of euphemisms was obtained and subjected to further examination. As stated by Farghal (1995), Arabic employs four types of euphemisms: figurative expressions, circumlocutions, remodeling and antonyms. Examples of all these types, as well as subtypes distinguished by Thawabteh (2012) namely: litotes, hyperboles, synecdoche, metonymy, omissions were found in the studied material. It is generally accepted that the main motivation for euphemisms is the desire to palliate certain reality (Khanfar, 2012). However, in this study, Wilmsen's (2009) point of view, according to which euphemization is a social obligation (wāgib) was adopted. This is consistent with Brown and Levinson's (1987) theory that some verbal actions might cause the speaker or hearer to lose face. It was also found that a) in EA dysphemisms and euphemisms often replace tabooed terms and cause them to disappear, b) some structures often employed to construct dysphemisms e.g. *ya ibn x* ('you son of x') can serve as euphemisms.

## References

- Khanfar, Adil, Malik, 2012, "Euphemism in Arabic: Typology and Formation." *Journal of the College of Arts*. University of Basrah, 61: 1-34.
- Thawabteh, Mohammad, Ahmad, 2012, "The Translatability of Euphemism and Dysphemism in Arabic-English Subtitling." *Lexis* 7: 145 - 156.
- Wilmsen, David, 2009, "Understatement, euphemism, and circumlocution in Egyptian Arabic. Cooperation in Conversational Dissembling." In *Information Structure in Spoken Arabic*, edited by Jonathan Owens and Alaa Elgibali, 243 - 259. London: Routledge.
- Brown, Penelope & Levinson, Stephen, 1987, *Politeness. Some Universals in Language Usage*, Cambridge: Cambridge University Press





## Olomouc Linguistics Colloquium

June 5 – 7 2014

Palacký University, Olomouc, Czech Republic

<http://olinco.upol.cz>



europa  
european  
social fund in the  
czech republic



EUROPEAN UNION



MINISTRY OF EDUCATION,  
YOUTH AND SPORTS



OP Education  
for Competitiveness



INVESTMENTS IN EDUCATION DEVELOPMENT



Language  
Diversity and  
Communication

CZ.1.07/2.3.00/20.0061

This project is co-funded by the European Social Fund and the state budget of the Czech Republic



PALACKÝ  
UNIVERSITY  
OLOMOUC



Olomouc Linguistics Colloquium  
June 5-7 2014



european  
social fund in the  
czech republic



EUROPEAN UNION



MINISTRY OF EDUCATION,  
YOUTH AND SPORTS



OP Education  
for Competitiveness



INVESTMENTS IN EDUCATION DEVELOPMENT



CZ.1.07/2.3.00/20.0061