Olinco

Olomouc **Linguistics Colloquium**

June 9–11, 2016
http://olinco.upol.cz

Book of Abstracts

Palacký University
Olomouc

Contents

*Michał **Kuźmicki***
Nasal Place Neutralization in Classical Nahuatl: A Derivational OT Account

*James E. **Lavine***
The Structure of *v*-Heads and the Status of the Initiator Role

*Michal **Láznička***
The Influence of Sequential Iconicity on the Ordering of Czech Adverbial Clauses

*Eva **Lehečková** and Jan **Křivan***
Czech Habitual Morpheme *-va-* as an Expression for Coding Gaps in Time Reference

*Natalia **Levshina***
A Pilot Study of T/V-Pronouns in European Languages Based on a Parallel Corpus
of Online Film Subtitles

*Wei-lun **Lu***
Use of Parallel Texts as a Methodology in Cultural-Cognitive Linguistics:
A Case Study on English-Chinese and English-Czech Parallel Texts

*Dagmar **Machová***
Polyfunctionality and German Modals

*M. Rita **Manzini** and Leonardo M. **Savoia***
N Morphology and Its Interpretation: Romance Feminine/Plural *–a*

*Michaela **Martinková***
Boundary Crossing Motion Events in Czech Source and Target Texts:
Evidence from a Parallel Corpus

*Vladimir **Matlach** and Diego Gabriel **Krivochen***
Measuring String 'Randomness': Applications of Quantitative Methods to Natural
and Formal Languages

*Petra **Mišmaš***
Multiple and Short *Wh*-Movement as *Wh*-Movement to the Peripheries

*Urszula **Modrzyk***
A Corpus-Based Study of Gradience of a Complex Preposition Category:
The Case of Polish *na rzecz*, *do spraw* and *w celu*

*Andrew **Murphy***
Gang Effects with Left-Branch Extraction: Arguments for Weighted Constraints

*Elliot **Murphy** and Andrea **Santi***
Processing and Acceptability Properties of Predicate Ordering Effects
in Copredication

Invited Speakers

Towards an Empirical Study of Sentence Semantics: Examples from the Domains of Scalar Operators and Concessives in English and German

Volker Gast

Friedrich Schiller University Jena, Germany

`volker.gast@uni-jena.de`

The study of sentence semantics in a model-theoretic framework (formal semantics), which grew out of logic and mathematics (e.g. Frege 1879, Russell 1905, Montague 1973, Cresswell 1973) and which abstracts away from any extra-sentential or non-linguistic information, has increasingly taken the factor of 'context' into account, thus leading to the establishment of a 'formal' branch of pragmatics (e.g. Kadmon 2001, Potts 2010). The consideration of the context is of particular relevance to the study of elements that make reference to alternatives, such as focus particles (Rooth 1985), or that refer to contextually given background assumptions, such as concessives (König 1991). Given that contextual embedding is arguably much less intuitively accessible than truth conditions, and given that information relating to the context of speech is often implicit, the study of language in context requires a methodology that relies on naturalistic data, and that goes beyond categorical judgements of truth or falsity, or (in)felicitousness.

While in descriptive linguistics a canon of methods has been developed that is based on natural language data (as represented in linguistic corpora, e.g. Biber et al. 1998), and that allows for the integration of probabilistic (in addition to categorical) generalizations (cf. Baayen 2008), studies in formal semantics or pragmatics rarely rely on naturalistic, contextually embedded data. This is probably at least partly due to the lack of corpora with annotations as are required for the analysis of elements such as focus particles or concessives. For example, for a proper analysis of focus operators information about the scope and the focus of a particle is indispensable, and information about the focus alternatives (for any given example) is at least useful. What is required, thus, is corpora with 'rich' annotations, i.e. annotations at various levels of linguistic analysis (minimally syntax, semantics and pragmatics) that are theoretically informed and provide the type of information that is needed for a fine-tuning of the formal analyses.

In this talk I will aim to show how the formal study of sentence meaning can be enriched by using a corpus-based, quantitative methodology, and by creating *ad hoc* corpora annotated at various levels. Such annotations are highly specific and require a combination of automatic annotations – for instance, syntactic parsing (Klein & Manning 2003) and word sense disambiguation (Pedersen & Kolhatkar 2009) – with manual annotations (Gast et al. 2015) – such as indications of the scope and focus of a particle, and the (implicit or explicit) focus alternatives available in the discourse environment.

I will present two case studies, one on scalar additive operators (e.g. Engl. *even*) and one on concessives (e.g. Engl. *although*). I will compare the relevant English expressions to their German equivalents. Specifically, I will show what distinguishes German scalar operators such as *selbst* and *sogar* from each other – and how they relate to Engl. *even* – and what

determines the distribution of English concessive subordinators such as *although* and *while*, in comparison to the corresponding German expressions.

References

Baayen, Harald. 2008. *Analyzing Linguistic Data. A Practical Introduction to Statistics using R*. Cambridge: Cambridge University Press.

Biber, D., S. Conrad, and R. Reppen. 1998. *Corpus Linguistics. Investigating Language Structure and Use*. Cambridge: Cambridge University Press.

Cresswell, Max. 1973. *Logics and Languages*. London: Methuen.

Frege, Gottlob. 1879. *Begriffsschrift. Eine der arithmetischen nachgebildete Formelsprache des reinen Denkens*. Halle.

Gast, Volker, Lennart Bierkandt, and Christoph Rzymski. 2015. " Annotating modals with GraphAnno, a configurable lightweight tool for multi-level annotation." In *Proceedings of the Workshop on Models for Modality Annotation*, held in conjunction with IWCS 11, 2015, 19–28. Stroudsburg, PA.

Kadmon, Nirit. 2001. *Formal Pragmatics: Semantics, Pragmatics, Presupposition and Focus*. Oxford: Blackwell.

Klein, Dan, and Christopher Manning. 2003. "Accurate unlexicalized parsing." In *Proceedings of the 41st Meeting of the Association for Computational Linguistics*, 423–30.

König, Ekkehard. 1991. "Concessive relations as the dual of causal relations." In *Semantic Universals and Universal Semantics*, edited by D. Zaefferer, 190–209. Berlin: de Gruyter.

Montague, Richard. 1973. "The proper treatment of quantification in ordinary English." In *Approaches to Natural Language*, edited by P. Suppes, J. Moravcsik, and J. Hintikka, 221–42. Dordrecht: Reidel.

Pedersen, Ted, and Varada Kolhatkar. 2009. "WordNet::SenseRelate::AllWords – A Broad Coverage Word Sense Tagger that Maximizes Semantic Relatedness." In *Proceedings of Human Language Technologies: The 2009 Annual Conference of the North American Chapter of the Association for Computational Linguistics*, 17–20. Stroudsberg, PA: Association for Computational Linguistics.

Potts, Christopher. 2010. "Formal pragmatics." In *The Routledge Pragmatics Encyclopaedia*, edited by L. Cummongs, 167–70. London: Routledge.

Rooth, Mats. 1985. "Association with focus." PhD Diss., University of Massachusetts.

Russell, Bertrand. 1905. "On denoting." *Mind* 14: 479–93.

Morphology in the Mental Lexicon

Ray Jackendoff[a] *and Jenny Audring*[b]

[a]Tufts University, Medford, MA, USA; [b]University of Leiden, Netherlands
Ray.Jackendoff@tufts.edu; j.audring@hum.leidenuniv.nl

We explore a theory of morphology grounded in the outlook of the Parallel Architecture (PA, Jackendoff 2002), drawing in large part on Construction Morphology (Booij 2010). The fundamental goal is to describe what a speaker stores and in what form, and to describe how this knowledge is put to use in constructing novel utterances. A basic tenet of PA is that linguistic structure is built out of independent phonological, syntactic, and semantic/conceptual structures, plus explicit interfaces that relate the three structures, often in many-to-many fashion.

Within this outlook, morphology emerges as the grammar of word-sized pieces of structure and their constituents, comprising morphosyntax and its interfaces to word phonology, lexical semantics, and phrasal syntax. Canonical morphology features a straightforward mapping among these components; irregular morphology is predominantly a matter of noncanonical mapping between constituents of morphosyntax and phonology.

As in Construction Grammar, PA encodes rules of grammar as *schemas*: pieces of linguistic structure that contain variables, but which are otherwise in the same format as words – in other words, the grammar is part of the lexicon. Novel utterances are constructed by instantiating variables in schemas through Unification. A compatible morphological theory must likewise state morphological patterns in terms of declarative schemas rather than procedural or realizational rules.

Non-productive morphological patterns can be described in terms of schemas that are formally parallel to those for productive patterns. They do not encode affordances for building new structures online; rather, they motivate relations among items stored in the lexicon. Productive schemas too can be used in this way, in addition to their standard use in building novel structures; hence they can be thought of as schemas that have "gone viral." Interestingly, this classification proves useful also for extending syntactic schemas to idioms and other fixed expressions.

This raises the question of how lexical relations are to be expressed. Beginning with the well-known mechanism of inheritance, we show that inheritance should be cashed out, not in terms of minimizing the number of symbols in the lexicon, but in terms of increased redundancy (or lower entropy). We propose a generalization of inheritance to include lexical relations that are nondirectional and symmetrical, and we develop a notation that pinpoints the regions of commonality between pairs of words, between words and schemas, and between pairs of schemas.

We conclude that linguistic theory should be concerned with relations among lexical items, from productive to marginal, at least as much as with the online construction of novel forms. We further conclude that the lexicon is richly textured, in a fashion that invites comparison with other domains of human knowledge.

Exfoliation: Towards a Derivational Theory of Clause Size

David Pesetsky

Massachusetts Institute of Technology
`pesetsk@mit.edu`

We too easily become used to facts about language that should strike us as strange. One of these is the menagerie of clause-types and clause-sizes in the world's languages categorized with ill-understood labels such as finite, non-finite, full, reduced, defective, and worse. For almost a half-century, the standard approach to these distinctions has treated them as a consequence of lexical choice — a legacy of arguments by Kiparsky & Kiparsky (1970) and Bresnan (1972), who showed (1) that verbs that select a clausal complement select for the complementizer and finiteness of that complement, and (2) that finiteness and complementizer choice have semantic implications. In an early-1970s model of grammar in which selection and semantic interpretation were properties of Deep Structure, these discoveries directly entailed the lexicalist view of clause type that is still the standard view today.

So compelling was this argument at the time, that its 1960s predecessor (Rosenbaum 1967) was all but forgotten — the idea that distinctions are *derivationally derived* as the by-product of derivational processes such as Raising. As a consequence, it has gone unnoticed that in a modern model of grammar, where structure is built by Merge (and both selection and semantic interpretation are interspersed with syntactic operations), the arguments against the derivational theory no longer go through.

In this talk, I present a series of arguments for a modernized return to a derivational theory. I argue that a reduced clause is the response to specific situation: a clause-external probe that has located a goal such as the subject in the upper phase of its CP-complement, when that goal does not occupy the edge of its CP. Since anti-locality prevents that goal from moving to the clausal edge (Erlewine 2015 and predecessors), a last-resort operation called **Exfoliation** deletes outer layers of the clause until the goal occupies the edge without ever having moved there. Evidence comes from an array of English, Romance and Icelandic puzzles usually taken to bear on case and licensing, which in this theory bear instead on whether or not Exfoliation happened legally, as well as from complementizer-trace effects, the typology of anti-Agreement (Baier 2016), and Zulu hyper-Raising (Halpert 2015).

Presentations

Operator Projections Moving as Remnants in Hungarian

Gábor Alberti and Judit Farkas

Department of Linguistics, University of Pécs, / Research Institute for Linguistics, Hungarian Academy of Sciences
alberti.gabor@pte.hu, juttasusi@gmail.com

Not only "argument-size" δP constituents (APs, AdvPs, or most typically DPs) can appear in the specifier position Spec,α of an operator head α in the cartographic syntactic structure of Hungarian sentences (see É. Kiss–Kiefer 1994, Piñón 1995, Alberti–Medve 2000, É. Kiss 2002, Brody–Szabolcsi 2003) where α is a Qunatifier, (Identificational) Focus or Aspectual head (see the schematic "deep structure" in (1a)). We claim that such "sentence-size" βP constituents can also appear there (in the above-mentioned Spec,α operator position) as an FP, NegP, AspP, among others, as is shown in (1b) below. As is also shown in (1b), however, the "sentence-size" βP constituent can only move as a remnant (Koopman–Szabolcsi 2000, Alberti 2004), presumably due to its extra size. Semantically, the content of βP is interpreted in Spec,α; while phonetically, a γP part of βP should be extracted so that only an "argument-size" δP constituent appear in the Spec,α position (but it is not the content of δP itself which is interpreted as a filler of Spec,α).

(1) a. $[_{\alpha P}\ \alpha\ [_{\beta P}\ \beta\ [_{\gamma P}\ \gamma\ ...\ [...\ V\ ...\ \delta P\ ...]\ ]\ ]\ ]$
    b. $[_{\alpha P}\ [_{\beta P}\ \delta P_i\ \beta\ \varnothing_j]_k\ \alpha\ \varnothing_k\ ...\ [_{\gamma P}\ ...\varnothing_i\ ...]_j\ ]$

Examples (2-3) below serve as illustrations of our claim, with two different "evaluations" of the quadruple of head categories ⟨α,β,γ,δ⟩. Note that the phonetic material of δP is interpreted, indeed, as the representative of a phrase βP, since δP in (2) cannot be interpreted as a clause-level quantifier at all (*fel is* 'up also') whilst δP in (3) can be interpreted as a clause-level quantifier only if the word order is as follows: *Marit is felhívtam* 'Mari.Acc also up.called.1Sg' ('It also holds for Mari that I called up her.').

(2) ⟨α,β,γ,δ⟩ = ⟨Q, Asp,V,Adv⟩: $[_{QP}\ [_{AspP}\ AdvP_i\ Asp+\varnothing_t\ \varnothing_j]_k\ Q+V_t\ \varnothing_k\ [_{VP}...\varnothing_t...\varnothing_i\ ...]_j\ ]$
    (A: '$[_{AspP}$ Fel akartad   hívni Marit.].') B: 'És$[_{QP}\ [_{AspP}$ fel] is $[_{Q'}$ hívtam   Marit]!'
                up   wanted.2Sg call.Inf Mari.Acc   and   up   also   called.1Sg Mari.Acc
    (A: 'You wanted to call up Mari.') B: 'And I did call up her.'

(3) ⟨α,β,γ,δ⟩ = ⟨Q,F,Asp,D⟩: $[_{QP}\ [_{FP}\ DP_i\ F+\varnothing_t\ \varnothing_j]_k\ Q+V_t\ \varnothing_k\ [_{AspP}...\varnothing_t...\varnothing_i\ ...]_j\ ]$
    (A: '$[_{FP}$ Marit   akartad   felhívni].')B: 'És$[_{QP}\ [_{FP}$ Marit   ] is $[_{Q'}$ hívtam   fel]]!'
              Mari.Acc wanted.2Sg call.Inf   and   Mari.Acc also called.1Sg up
    (A: 'It is Mari that you wanted to call up.') B: 'And it is Mari, indeed, that I called up.'

Example (5) shows that if a noun phrase is "sentence-size" in the sense that a pre-D operator zone appears in it (in Giusti's (1996) spirit, see also Alberti *et al.* 2015) and Alberti and Farkas (to appear)), the huge noun phrase (βP=$Q_{Pos}P$) occupies the clausal Spec,Foc

(Spec,α) as a remnant whose phonetic material is practically a DP (δP), with an extracted part which is also a DP (γP).

(5) $\langle α,β,γ,δ \rangle = \langle F,Pos,D,D \rangle$:   [FP [QPosP **DP$_i$ Q$_{Pos}$ $\varnothing_j$]$_k$** F+V$_t$ [VP ...$\varnothing_t$ ... $\varnothing_k$ ... *[DP ...$\varnothing_i$ ...]$_j$* ...]]

[FP Csak [PosP mindkét kollégának] [F ellenzem   az elküldését]]!
   only   both   colleague.Dat   oppose.DefObj.1Sg   the away.send.Nmn.Poss.3Sg.Acc
'It is only the option according to which both colleagues would be sent
 away that I am definitely against [as for me, one of them can be sent away].'

Keywords: cartographic syntax, operators, Hungarian

References

Alberti, Gábor. 2004. "Climbing for Aspect – with no Rucksack." In *Verb Clusters; A study of Hungarian, German and Dutch. Linguistics Today* 69, edited by Katalin É. Kiss and Henk van Riemsdijk, 253–289. Amsterdam / Philadelphia: John Benjamins.

Alberti, Gábor, and Judit Farkas. To appear. "Derivation of nouns." In *Nouns and noun phrases*, edited by Tibor Laczkó and Gábor Alberti. Amsterdam: Amsterdam University Press, to appear.

Alberti, Gábor, Judit Farkas, and Veronika Szabó. 2015. "Arguments for Arguments in the Complement Zone of the Hungarian Nominal Head." *Approaches to Hungarian* 14: 3–36. Amsterdam: John Benjamins Publ. Company.

Alberti, Gábor, and Anna Medve. 2000. "Focus Constructions and the "Scope–Inversion Puzzle" in Hungarian." *Approaches to Hungarian* 7: 93–118. Szeged: JATEPress.

Brody, Michael, and Anna Szabolcsi. 2003. "Overt Scope in Hungarian." *Syntax* 6.1: 19–51.

Giusti, Giuliana. 1996. "Is there a FocusP and a TopicP in the Noun Phrase structure?" *Working Papers in Linguistics* 6/2: 105–128. University of Venice.

Kenesei, István. 1998. "Adjuncts and arguments in VP-focus." *Acta Linguistica Hungarica* 45: 61–88.

Kiss, É. Katalin. 2002. *The Syntax of Hungarian.* Cambridge: Cambridge Univ. Press.

Kiss, É. Katalin, and Ferenc Kiefer (eds.). 1994. *The Syntactic Structure of Hungarian, Syntax and Semantics* 27. New York: Academic Press.

Koopman, Hilda, and Anna Szabolcsi. 2000. *Verbal complexes.* Cambridge, Mass.: MIT Press.

Piñón, Christopher. 1995. "Around the Progressive in Hungarian." *Approaches to Hungarian* 5: 153-189. Szeged: JATEPress.

Table 1. Cases that our whole paper discusses (besides cases (2-4), discussed above)

	(2)	(3)								(4)
α	Q	Q	Q	Q	Q	F	F	Asp	F	F
β	Asp	F	Asp	Neg	Neg	F$_{Inf}$	T$_{Inf}$	Asp$_{Inf}$	Asp	Q$_{Pos}$
γ	V	Asp	–	Asp	F	Asp$_{Inf}$	Asp$_{Inf}$	Inf	V	D
δ	Adv	D	V	V	Asp	D	AdvD	Adv	Adv	D

Examining the Fluctuation Hypothesis at Early Stages of English L2 Article Acquisition: The Role of Instruction and Metalinguistic Feedback

Jwahir Alzamil

Newcastle University, Newcastle upon Tyne, UK

`jawahir.al-zamil@newcastle.ac.uk`

The formal-linguistics-based study of second language acquisition (SLA) often ignores the implications for language teaching, including acquisition of articles. Krashen (1985) and Schwartz and Gubala-Ryzak (1992) argue that negative evidence (regardless of type) does not influence L2 acquisition. To address this situation, the present study is positioned at the interface between the SLA and corrective feedback literature. The study examines the Fluctuation Hypothesis (FH) which proposes that L2 learners whose L1 lacks articles fluctuate between specificity and definiteness (Ionin et al. 2008), two settings of the Article Choice Parameter, whereas L2 learners whose L1 has articles will not fluctuate, due to L1 transfer. Fluctuation means that L2 learners use *the* in [+specific] contexts; however, English links the use of *the* to definiteness, not specificity. Like English, Arabic distinguishes articles based on definiteness; nevertheless, it lacks a phonologically overt indefinite article (comparable with the English *a*). The present study examines how instruction alone and instruction accompanied by metalinguistic feedback interact with article use during the early stages of L2 acquisition.

The study involved 93 participants. Of these, 78 Arabic-speaking EFL participants were divided into a metalinguistic group (MG) that received instruction accompanied by metalinguistic feedback (n=26), an instruction group (IG) that received instruction alone (n=26) and a control group (n=26). In addition, there were 15 native English speaking controls. All were at elementary level, based on the Oxford Quick Placement Test. Testing comprised two tasks: a) a forced-choice elicitation task; and b) a cloze task. A six-week intervention followed a pre-test/post-test/delayed post-test design. During the first and second weeks, the participants completed the consent forms, background questionnaire and the proficiency test. During the week following the pre-test (the third week), the MG and IG separately received one instruction session (90 minutes) on English articles. The reason for providing the MG with instruction before giving them metalinguistic feedback is to investigate in greater detail the role and effects of metalinguistic feedback when it is accompanied by instruction. However, both groups differed in relation to what they received in the subsequent four sessions (one each day for 90 minutes' duration), which were conducted in the fourth week. Both groups were assigned the same activity tasks; however, only the MG was corrected and provided with metalinguistic feedback. Both groups were post-tested again in the sixth week.

Results of the pre-test revealed that the three groups: a) made a high rate of omission errors in using *a* and *the*; and b) they associated the use of *the* to specificity and not to definiteness, as they did not transfer article semantics from Arabic, which is against the FH. The fluctuation occurred at the individual level, as all the participants fluctuated, surpassing the findings of Ionin et al. (2008) in [-article] language speakers; whereby 10 of the 19

participants (53%) fluctuated. Post-test and delayed post-test results demonstrated that instruction alone and instruction with metalinguistic feedback had various effects over omission errors and fluctuation. For omission errors, the MG's omission errors rate decreased from 35.6% to 6.7% in the post-test and to 8.7% in the delayed post-test, whereas the IG's rate decreased from 27.9% to 22.1% in the post-test and to 26% in the delayed post-test. For fluctuation, the IG continued to fluctuate at the individual level, but the MG did not. The results revealed that: a) L1 semantic features may not be transferred, at least in the case of L1 Arabic speakers, which indicates that L1 speakers of [+article] languages who are at early stages of L2 acquisition are similar to [-article] language speakers in terms of fluctuation; b) the omission errors in the use of *the* and *a* show that L1 Arabic speakers were not sensitive to the fact that Arabic lacks an equivalent to the English article *a*, since the omission error rate of *a* and *the* was similar; and c) instruction unaccompanied by metalinguistic feedback is not that effective.

References

Ionin, Tania, Maria Luisa Zubizarreta and Salvador Bautista Maldonado. 2008. "Sources of Linguistic Knowledge in the Second Language Acquisition of English Articles." *Lingua* (118): 554–576.

Krashen, Steven. 1985. *The Input Hypothesis: Issues and Implications*. London: Longman.

Schwartz, Bonnie and Magda Gubala-Ryzak. 1992. "Learnability and Grammar Re-Organisation in L2A: Against Negative Evidence Causing the Unlearning of Verb Movement." *Second Language Research* 8 (1): 1–38.

Global case splits and cyclic Agree: Arguments for dissociating Case and Agree

András Bárány
Research Institute for Linguistics of the Hungarian Academy Sciences (RIL-HAS)
barany.andras@nytud.mta.hu

In languages with so-called global case splits, the person of the subject and the object determine case-marking on one of these arguments together. This means that Case assignment to the object must be delayed until the verb has agreed with the object *and* the subject, challenging the widespread assumption that Case and Agree are aspects of a single operation. I argue that it is correct to dissociate Case and Agree and I provide an analysis that derives global case splits using cyclic Agree (Béjar and Rezac 2009) and syntax-internal impoverishment (Keine 2010).

1 Data In Kashmiri (Indo-European), the object is DAT only if the OBJ's person is higher than the SBJ's person on a scale such as 1 > 2 > 3. Examples are shown in (1–2) (Wali and Koul 1997, 155). When the subject's person is higher than the object's, the object appears as NOM.

(1) a. *bɨ*   *chu-s-ath*   *tsɨ*   *parɨnaːvaːn*   b. *tsɨ*   *chu-kh*   *me*   *parɨnaːvaːn*
     I.NOM   be-1SG-2SG   **you.NOM** teaching   you.NOM   be.M.SG-2SG   **I.DAT** teaching
     'I am teaching you.'   **1→2: NOM**   'You are teaching me.'   **2→1: DAT**

(2) a. *tsɨ*   *chi-h-an*   *su*   *parɨnaːvaːn*   b. *su*   *chu-y*   *tse*   *parɨnaːvaːn*
     you.NOM   be-2SG-3SG   **he.NOM** teaching   he.NOM   be-2SG   **you.DAT** teaching
     'You are teaching him.'   **2→3: NOM**   'He is teaching you.'   **3→2: DAT**

2 Problem Such data pose a challenge to the idea that Case and Agree happen simultaneously, since Case assignment to the object would happen too early in (1a) and (2a). Both (1) and (2) examples show that the person of the object alone does not determine its case.

3 Analysis I adopt a version of *cyclic Agree* (Béjar and Rezac 2009): probes can agree as long as they have unvalued features. Person features are sets of features: [SP(eaker)], [PART(icipant)] and a generalised feature [π]. A scale like 1 > 2 > 3 is represented by relations among sets.

(3)   [1] = {SPEAKER, PARTICIPANT, π} ⊃ [2] = {PARTICIPANT, π} ⊃ [3] = {π}

v agrees with the direct object first. If and only if the subject's features are a proper superset of the object's features (i.e. 1 ⊃ 2, 1 ⊃ 3, or 2 ⊃ 3), *v* can agree with both the object *and* the subject, but Agree between *v* and the subject fails otherwise.

I propose that languages with global case splits differ from languages without them by allowing a different order of operations on *v* (Heck and Müller 2007; Georgi 2014). In Kashmiri, φ-Agree precedes Case ([φ-Agree < Case]). As long as *v* can enter Agree relations, it will not assign Case. This delays Case assignment until *v* can no longer agree. Languages with [Case < φ-Agree] cannot have global case splits because Case assignment happens too early to be influenced by agreement: *v* will assign Case, independently of the sets of φ-features involved.

There are then two possible derivations: when *v* is valued by two arguments the object has NOM (*direct* configurations), cf. (1a) and (5b). When *v* is valued by one argument the object has DAT (*inverse* configurations), cf. (1b) and (5c). The lack of case-marking on the object in the other examples can be derived by the impoverishment rule shown in (4), which applies when *v* has two values, indicated by [α, β] in (4). This means that *v*'s DAT Case is deleted in direct configurations like (1a) and (2a) but not otherwise, cf. (5b) and (5c).

(4)   DAT → ∅ / __ *v*: [α, β]

4 Conclusions This paper provides a formally explicit analysis of Case assignment in languages with global case splits that avoids countercyclic derivations and derives effects of person hierarchies without syntax-external hierarchies and constraint rankings.

(5) a. **Steps Ⓐ and Ⓑ of (1a,b)**
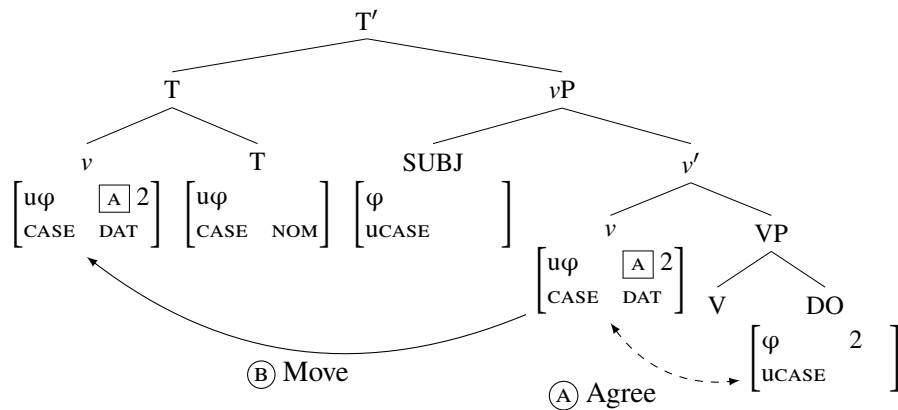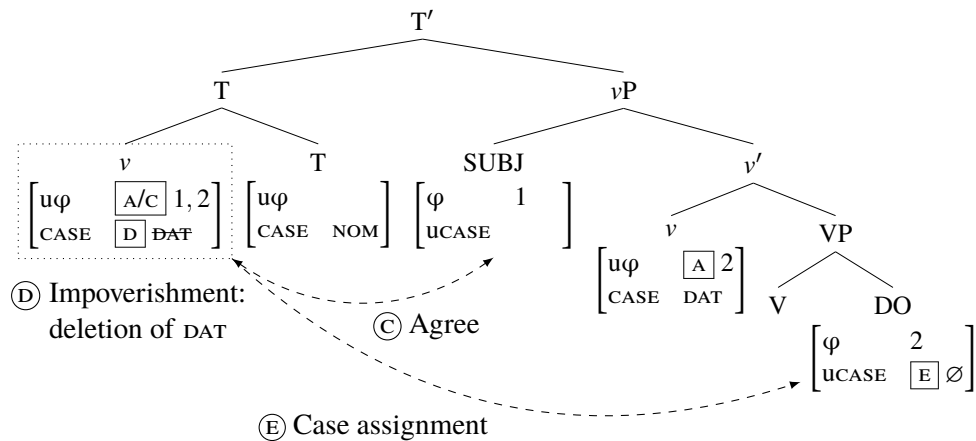
```
                          T′
              ┌───────────┴───────────┐
              T                        vP
        ┌─────┴─────┐          ┌───────┴───────┐
        v           T         SUBJ             v′
  ⎡uφ   Ⓐ 2⎤  ⎡uφ      ⎤   ⎡φ      ⎤     ┌─────┴─────┐
  ⎣CASE DAT⎦  ⎣CASE NOM⎦   ⎣uCASE  ⎦     v           VP
                                    ⎡uφ   Ⓐ 2⎤   ┌───┴───┐
                                    ⎣CASE DAT⎦   V       DO
                                                      ⎡φ      2⎤
                                                      ⎣uCASE   ⎦
```

Ⓑ Move   Ⓐ Agree

b. **Direct configuration, cf. (1a)**

```
                          T′
              ┌───────────┴───────────┐
              T                        vP
        ┌─────┴─────┐          ┌───────┴───────┐
        v           T         SUBJ             v′
  ⎡uφ   A/C 1,2⎤ ⎡uφ      ⎤ ⎡φ     1⎤    ┌─────┴─────┐
  ⎣CASE D D̶A̶T̶⎦  ⎣CASE NOM⎦ ⎣uCASE  ⎦    v           VP
                                    ⎡uφ   Ⓐ 2⎤   ┌───┴───┐
                                    ⎣CASE DAT⎦   V       DO
                                                      ⎡φ      2 ⎤
                                                      ⎣uCASE Ⓔ ∅⎦
```

Ⓓ Impoverishment: deletion of DAT   Ⓒ Agree

Ⓔ Case assignment

c. **Inverse configuration, cf. (1b)**

```
                          T′
              ┌───────────┴───────────┐
              T                        vP
        ┌─────┴─────┐          ┌───────┴───────┐
        v           T         SUBJ             v′
  ⎡uφ   Ⓐ 2⎤  ⎡uφ      ⎤   ⎡φ     3⎤     ┌─────┴─────┐
  ⎣CASE DAT⎦  ⎣CASE NOM⎦   ⎣uCASE  ⎦     v           VP
                                    ⎡uφ   Ⓐ 2⎤   ┌───┴───┐
                                    ⎣CASE DAT⎦   V       DO
                                                      ⎡φ      2   ⎤
                                                      ⎣uCASE Ⓓ DAT⎦
```

No impoverishment!   Ⓒ *Agree

Ⓓ Case assignment
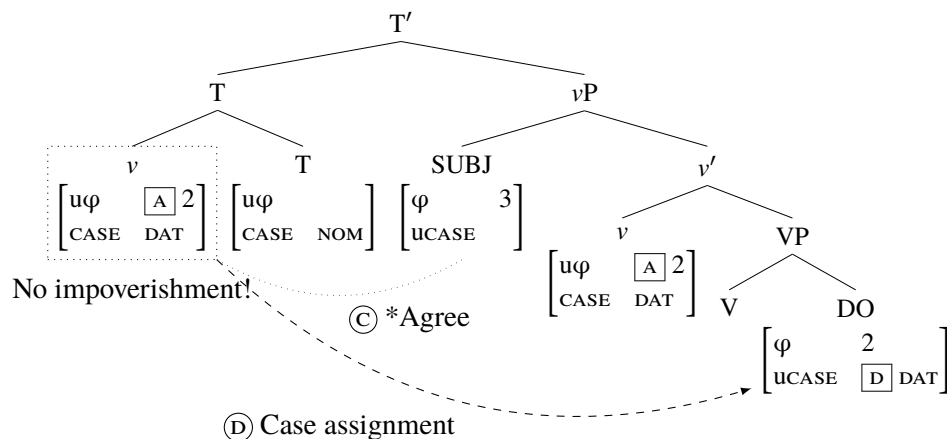
References Béjar, Susana, and Milan **Rezac.** 2009. "Cyclic Agree." *LI* 40 (1): 35–73. **Georgi,** Doreen. 2014. "Opaque Interactions of Merge and Agree." PhD diss., Universität Leipzig. **Heck,** Fabian, and Gereon **Müller.** 2007. "Extremely Local Optimization." In *Proceedings of the thirty-fourth Western Conference on Linguistics,* edited by Erin **Bainbridge** and Brian **Agbayani.** Fresno: Department of Linguistics, California State University. **Keine,** Stefan. 2010. *Case and Agreement from Fringe to Core.* Berlin: De Gruyter. **Wali,** Kashi, and Omkar N. **Koul.** 1997. *Kashmiri.* New York: Routledge.

Variable Use of Strong Preterites in European Portuguese: A Quantitative and Theoretical Approach

Pilar Barbosa, Cristina Flores, and Ana Bastos-Gee

University of Minho, Portugal

`pbarbosa@ilch.uminho.pt; cflores@ilch.uminho.pt;`
`acba18@gmail.com`

1. Goals

In the Minho region in Portugal, the 1st and 3rd person singular forms of strong preterites can be leveled and the form used for leveling can vary:

(1)   Pois   ela **estive**   lá   três   anos parada [68M3A]
       Anyhow she ***was**$_{1P.SG}$*   *there three   years still*

(2)   Eu **foi**   para a tropa   em cinquenta e   quatro [38H4B]
       ***I went**$_{3P.SG}$ to   the troop   in   fifty   and four*

The goals of this paper are: (a) to determine which linguistic and social factors favor this variation, and (c) to offer an explanatory account of this phenomenon.

2. Methodology

We examined 50 interviews from the stratified corpus 'Sociolinguistics Profile of the Speech of Braga'. We selected speakers from three age groups (26-59 / 60 – 75 / > 75) and four different education levels (without degree / 4-9 school years /10-12 school years / university degree). A total of 3595 tokens were coded.

We ran a mixed effect binominal analysis using Rbrul (Johnson, 2009), with five independent factors: 'age', level of education; 'verb', 'subject expression' and 'subject position'. The factor 'verb' included the forms 'estive/ esteve' (*1P/3P of to be-stative*), 'tive/ teve' (*1P/3P of to have*), 'fiz/ fez' (*1P/3P of to do*) and 'fui/ foi' (*1P/3P of to be and to go*).

3. Results

The regression analysis identified as main predictors the factors 'speaker' (a random effect), 'subject expression', 'verb' and 'age'. Variable leveling is almost insignificant in the younger group, thus probably indicating a process of ongoing change. It rarely occurs with null subjects. Subject position does not have a predictive effect.

There is a clear difference between *ter/estar/fazer*, on one hand, and *ser/ir,* on the other. While in the former case leveling can be realized by either the form for the 1st or the form for 3rd person, in the case of *ser/ir* only one form is used, namely the 3rd person form *foi*. There is also an individual tendency to use only one form for leveling: a given speaker either uses the 3rd person or the 1st person, but not both forms of one verb randomly. Thus, there is inter-linguistic variation in this regard.

4. Analysis

In our analysis, we follow the "late insertion" model of Distributed Morphology (Halle & Marantz 1993). We develop an account of these agreement leveling effects that is based on the interaction between the internal syntax of the strong preterites and the late insertion of

underspecified functional Vocabulary Items. We propose a derivation of the different forms in the standard dialect and then we offer an analysis of leveling where intra-speaker variation is tied to the probabilistic application of impoverishment rules along the lines of Nevins and Parrot (2010). Inter-speaker variation is due to different choices as to which feature sets are subject to impoverishment: the features for Person or T. In the case a verb such as *ter*, this yields */teve/* or */tive/*, respectively. In the case of *ser* or *ir* the resulting forms are /foj/ in both cases.

References

Halle, M., and A. 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 K. Hale and S.J Keyser, 111–176. Cambridge, MA: MIT Press.

Nevins, A., and J. K. Parrott. 2010. "Variable rules meet Impoverishment theory: Patterns of agreement leveling in English varieties." *Lingua* 120: 1135–1159.

Psych Predicates from a Cross-Linguistic Perspective

Laura Becker and Matías Guzmán Naranjo

Leipzig University, Leipzig, Germany

`laura.becker@uni-leipzig.de; matias.guzman_naranjo@uni-leipzig.de`

Phenomenon. Psych verbs have been observed to be a challenge for theories of argument realization due to the linking problem (Dowty 1991), and because they exhibit argument structure alternations exclusive to them (Belletti and Rizzi 1988), since the experiencer and stimulus tend not to be encoded by the canonical cases (NOM and ACC, respectively) of a transitive verb. Psych verbs can be divided into two classes according to their syntactic behaviour (e.g. Croft 1993, Pesetsky 1995, Iwata 1995), i.e. subject-experiencer (e.g. like) and object-experiencer verbs (e.g. *please*). There has been relatively little recent research on cross-linguistic comparison of psych predicates (e.g. Bossong 1998), and nothing in the form of quantitative corpus typology (see (Pijpops and Speelman 2015) for work on Dutch).

Aim of the study. Work on parallel corpora for typological research, although promising, is still lacking for most phenomena (e.g. Dahl 2007, Levshina Forthc, Meyer and Cysouw 2014). Firstly, we want to help fill this gap by providing a systematic analysis of psychological predicates in cross-linguistic, quantitative perspective. Secondly, we can capture more than the default coding strategy for a given semantic concept, providing a more fine-grained typology of syntactic patterns. Moreover, we can compare token and type frequencies of the psych verb constructions within languages and cross-linguistically, which sheds light on cross-linguistic preferences for constructions expressing the semantics of psych verbs.

Methodology. We chose the following languages: Spanish, Portuguese, French, German, Dutch, and Russian. We used a multi-lingual parallel corpus based on TED talks (Kulkarni 2015) . We extracted all constructions for 12 semantic concepts: *be happy*, *be surprised*, *love*, *like/please*, *be interested*, *enjoy*, *hate*, *be worried*, *fear*, *be upset*, *be bored*, *be sad*. These were selected on the basis of high token frequency and semantic type (positive vs negative emotions). Both the causative (*frighten*, *worry*) and stative variants (*fear*, *be worried*) (cf. Croft 1993) were taken into consideration. We then extracted the possible syntactic constructions (and different lexemes, in case more than one is used for stative and causative meanings) to express those semantic concepts. (The analysis of a couple of languages is still pending.)

Hypotheses and expected results. (i) Semantics is reflected in syntax: if the experiencer is semantically more prominent, we expect it to be coded by a core case (NOM, ACC, DAT), the stimulus being expressed as oblique (e.g. *X is surprised by Y*) or left out (*X is worried*). Causative psych verbs focusing on the stimulus are expected to be transitives with the stimulus as subject (*X interests Y*). (ii) Higher frequency concepts will both show less syntactic variation, and be the more likely candidates to have different causative and stative forms. Because high frequency concepts will be more entrenched (Schmid 2016), they will be less prone to syntactic variation, and because of the high frequency, they should be able to

more easily maintain different lexemes (similarly to how suppletion is more likely with high frequency words).

Keywords: corpus linguistics; parallel corpora; typology, psych predicates

References

Bossong, Georg. 1998. "Le marquage de l'expérient dans les langues d'Europe." In *Actance et valence dans les langues d'Europe*, edited by Jack Feuillet, 259-294. Berlin: Mouton de Gruyter.

Belletti, Adrian, and Rizzi, Lougi. 1988. "Psych-verbs and θ-theory." *Natural Language & Linguistic Theory* 6 (3): 291-352.

Croft, William. 1993. "Case marking and the semantics of mental verbs." In *Semantics and the Lexicon*, edited by James Pustejovsky, 55-72. Dordrecht: Kluwer.

Dahl, Östen. 2007. From questionnaires to parallel corpora in typology. *STUF Sprachtypologie und Universalienforschung* 60 (2): 172-181.

Dowty, David. 1991. "Thematic proto-roles and argument selection." *Language* 67 (3): 547-619.

Iwata, Seizi. 1993. "Three Types of Passives for Psych-Verbs." *English Linguistics* 10: 160-183.

Iwata, Seizi. 1995. "The distinctive character of psych-verbs as causatives." *Linguistic Analysis* 25: 95-120.

Klein, Katarina, and Silvia Kutscher. 2005. *Lexical Economy and Case Selection of Psych-Verbs in German*. Manuscript.

Kulkarni, Ajinkya. 2015. *TED Parallel Corpora*. GitHub repository: https :// github.com/ajinkyakulkarni14/ TED-Multilingual-Parallel-Corpus.

Kutscher, Silvia. 2009. *Kausalität und Argumentrealisierung. Zur Konstruktionsvarianz bei Psychverben am Beispiel europäischer Sprachen*. Tübingen: Max Niemeyer Verlag.

Levshina, Natalia. Forthcoming. "Verbs of letting in Germanic and Romance: A quantitative investigation based on a parallel corpus of film subtitles." To appear in *Languages in Contrast*.

Mayer, Thomas, and Michael Cysouw. 2014. "Creating a massively parallel Bible corpus." In *Proceedings of LREC 2014*, 3158-3163.

Pesetsky, David. 1995. *Zero Syntax: Experiencers and Cascades*. (Current Studies in Linguistics 27). Cambridge, Mass.: MIT.

Pijpops, Dirk, and Dirk Speelman. 2015. "Argument alternations of the Dutch psych verbs." *Proceedings of QILT6*.

Primus, Beatrice. 2004. "Proto-Rollen und Verbtyp: Kasusvariation bei psychischen Verben." In *Semantische Rollen*, edited by Martin Hummel and Rolf Kailuweit, 377-401. Tübingen: Narr.

Schmid, H. (Ed.) 2016. *Entrenchment, Memory and Automaticity. The Psychology of Linguistic Knowledge and Language Learning*. Berlin, Boston: De Gruyter Mouton.

Licensing the Correlative Construction via the Semantics of the Demonstrative

Anne Beshears

Queen Mary University of London, London, England

`a.e.beshears@qmul.ac.uk`

The correlative construction is characterized by a relativizing clause (the *correlative*, CorrelP in (2)) which is linked with the main clause through a *correlate* (DemP in (2)) (Bhatt 2003; de Vries 2005; Liptak 2009), where the correlate may be either a demonstrative phrase or a pronominal (de Vries 2001).

While correlatives are often analyzed as being base-generated at the left periphery (Srivastav 1991; Dayal 1996), Bhatt (2003) proposes that the correlative construction has the following structure (1) in which the correlative and the demonstrative correlate are part of the same constituent (2). The correlative may then be fronted (3) and leave a trace.

1. [[CorrelCP] [*DemP* Dem NP]]
2. ram   [[$_{CorrelP}$ jo   CD   sel   pər hɛ] [$_{DemP}$ us   CD   ko]] kʰaridega   *(Hindi)*
   Raam   which CD   sale on   is   that.obl *CD   acc   buy*.fut
   'Raam will buy [which CD is on sale, that CD].'
3. [[$_{CorrelP}$ jo   CD sel   pər   hɛ]$_i$ *ram   t$_i$ [$_{DemP}$ us   CD   ko]] kʰaridega (H.)*
         which CD sale   on   is   Raam   that.obl*CD   acc   buy*.fut
   '[which CD is on sale]$_i$ Raam will buy [t$_i$ that CD].'

Bhatt's analysis leaves open the question of why the correlative only enters the syntax where there is a corresponding demonstrative or pronominal, and semantically, how the correlative CP and the demonstrative compose to give the proper interpretation.

Using technology from Elbourne (2008)'s treatment of demonstratives, I propose that the correlative clause enters the syntax as an overtly pronounced index of the demonstrative. The correlative clause is therefore selected by the demonstrative as an argument.

4. [*DemP* [[*i* this] R] NP]
5. This CD [Gesturing at a 'Dark Side of the Moon' poster] is one of my favorites.
6. [[*this CD*]] = $\sigma z.x.(z= poster^x$ is a CD in s^x is represented by $z^{\wedge}proximal(poster,w,a,t))$
The unique individuals z and x, such that z is a poster, x is a CD, and z represents x, and the poster is proximal according to the speaker a, at the speech time t, in a possible world w.

The demonstrative has an underlying structure like that in (4) (Elbourne 2008, following Nunberg 1993). The index, a lexical item *i*, picks out an object, and R is a contextually salient relationship. The morpheme *this* contributes the information above number, proximity, and definiteness.

Given example (5), the index *i* picks out the semantic value 'Dark Side of the Moon' poster, where the morpheme *this* contributes the proximal, singular, and definiteness features. The R relation, in this case, 'is represented by', relates the index to an interpretation in the main clause. Thus, *this CD* has a semantic value as in (6).

I propose that the Hindi correlative (2) is an overt pronunciation of the index of the demonstrative, with the structure in (7). The demonstrative takes the correlative *jo CD sel pər hɛ* 'which CD is on sale' as the index *i*. In this context, R is simply an identity relation (ie. '='), and the NP is *CD*. Using English to represent the Hindi and reflecting the Hindi word order (2), this has a semantic value of (7).

7. [[[*which CD is on sale*] that] R] CD]
8. [[*which CD is on sale; that CD*]]=the unique x s.t. x is a CD and x=the CD on sale.

It is the indexical nature of the demonstrative itself (or the pronominal, in some languages) which allows the correlative clause to enter the syntax.

The semantic composition of the demonstrative phrase easily extends to cases in which the correlative phrase and the correlate phrase have distinct noun phrases (9). In this case, *jo zordar arət bəhʋt pareʃan karti hɛ* 'which loud woman is causing a lot of trouble' is selected as the index of the demonstrative, which corresponds through an R relation of identity to the NP in the main clause, *moti ləmbi arət* 'fat tall woman'.

The full demonstrative phrase has a semantic value as in (10).

9. [jo   zordar arət   bəhʋt pareʃan karti   hɛ]   ʋo   ləmbi   moti   meri saːs hɛ   *(H.)*
   which loud   woman much trouble does   pres   that   tall   fatty.f *my   MIL is*
   'Which loud woman is causing a lot of trouble, that large tall woman is my mother in law.'

10. σz.∃ x.(z= loud woman ^ x is a 'tall fatty' in s ^ x = z ^ distal(loud woman,w,a,t))

This analysis predicts that other phrase may also appear as an overt pronounciation of the index of the demonstrative, which proves to be the case. In the following example in Hindi (11), a relativized DemP appears in the fronted, correlative position. In this case, *vo cʰatur laɽka jo cʰor hɛ* 'that clever boy who is a thief' is associated with and moved from the index of the demonstrative *vo* 'that' in the main clause.

11. [ʋo   cʰatur laɽka jo   cʰor hɛ]$_i$, ap   jante   hẽ   [t$_i$ ʋo] jel   gaya hɛ   *(H.)*
    that clever boy   who thief is   you   know.impfct pres   *that jail went* pres
    '[DemP That clever boy who is a thief], you know that [t$_i$ that/he] went to jail.'

Similarly, this analysis can be extended to constructions in languages which are not traditionally thought of as having a correlative construction. For example (12), in Mandarin Chinese (familial) possessives like the following, *Zhangsang* is being selected as an argument of the pronominal, base-generated as an overtly pronounced index.

12. Lili   guyong   le   Zhangsan   ta   baba   *(Mandarin)*
    Lili   hire   LE   Zhangsang   he   father
    'Lily hired [DemP Zhangsang *he* father].'

The analysis which I have presented here goes beyond previous analyses of the correlative construction by showing the relationship between the correlative clause and the demonstrative correlate situated in the main clause. Bhatt (2003), the correlative (CP) and the demonstrative are both within the same constituent, but it is clear under this account why the demonstrative licenses the correlative construction and the semantic composition of the correlative-correlate constituent follows easily from the semantics of the demonstrative phrase.

Further, this analysis predicts that other types of DPs may enter the syntax as an overt pronunciation of the index of the demonstrative.

References

Bhatt, R. 2003. "Locality in correlatives." *Natural Language & Linguistic Theory* 21(3): 485–541.

Dayal, V. 1996. *Locality in WH quantification: Questions and relative clauses in Hindi.* Dordrecht: Kluwer Academic Publishers.

de Vries, M. 2001. "Patterns of relative clauses." *Linguistics in the Netherlands* 18(1): 231–43.

de Vries, M. 2005. "The fall and rise of universals on relativization." *Journal of Universal Language* 6(1): 125–57.

Elbourne, P. 2008. "Demonstratives as individual concepts. *Linguistics and Philosophy* 31(4): 409–66.

Lipták, A., ed. 2009. *Correlatives cross-linguistically* (Vol. 1). John Benjamins Publishing.

Nunberg, G. 1993. "Indexicality and deixis." *Linguistics and philosophy* 16(1): 1–43.

Srivastav, V. 1991. *Wh dependencies in Hindi and the theory of grammar.* PhD diss., Cornell University.

Constraints on Psych Verb Passivisation in Polish

Anna Bondaruk,[1] Bożena Rozwadowska[2] and Wojciech Witkowski[2]

[1]John Paul II Catholic University of Lublin, Poland; [2]Wrocław University, Poland
bondaruk@kul.pl; browad@uni.wroc.pl; wojciechw62@gmail.com

Object Experiencer (OE) verbs behave in a special way, and thus have been on the research agenda for almost 3 decades. Cross-linguistically, they are three-way ambiguous between agentive, eventive and stative interpretations (cf., Arad 1998, 1999, Landau 2010, Alexiadou and Iordăchioaia 2014, a.o.). Whether OE verbs are grammatically special is subject to controversy. Passivisation is one of the relevant properties in this debate. Agentive OE verbs, as expected, form verbal passives. However, the status of passives formed by OE verbs in eventive and stative contexts remains unclear. Pesetsky (1995) and Landau (2010) take only eventive OE verbs to be able to form verbal passives. Grafmiller (2013) argues that all psychological predicates, even stative ones, are capable of forming verbal passives. For Fábregas and Marín (2015), the so-called 'formal psych predicates', the class that includes some OE and Subject Experiencer (SE) verbs, resist the verbal passive in Spanish altogether.

The aim of this paper is to examine the passivisation options that are attested for Polish OE predicates and to check whether the type of the passive structure available for a given predicate is dependent on its interpretation. Two groups of OE verbs have been investigated, stative and non-stative (or eventive), distinguished by Biały (2005). Stative OE verbs include: *interesować* 'interest', *martwić* 'worry', *trapić* 'plague', *zasmucać* 'grieve', etc., whereas the non-stative OE verbs comprise: *dręczyć* 'torment', *rozbawić* 'amuse', *straszyć* 'scare', *zaskoczyć* 'startle', etc. Passive sentences containing 33 stative and 46 non-stative OE verbs have been extracted from the National Corpus of Polish (www.nkjp.pl). Additionally, specifically constructed passive sentences with the two types of OE verbs have been collected. The data have been analysed to check what type of passive they represent - verbal or adjectival. We assume that in Polish verbal passives are distinguished from adjectival ones by means of the auxiliary verb, i.e. *zostać* ' to become' vs. *być* ' to be', respectively. Moreover, other criteria for distinguishing adjectival from verbal passives available in the literature (cf. Wasow 1977, and Gehrke to appear) have been applied to the Polish data, such as (i) the interpretive difference (ongoing, completed event, non-dynamic state), (ii) the possibility of using degree words to modify (certain) adjectival passives, (iii) the possibility of using the adjectival prefix *nie-* 'un-', (iv) control into purpose clauses, (v) unrestricted appearance in the progressive, (vi) the modification by *ostatnio* 'recently', and (vii) the use of frame adverbials such as *od* 'since' or durative/iterative *wciąż* 'all the time'.

The analysis of the data supports the split of OE verbs into two classes and shows that non-stative OE verbs more readily form verbal passives, as they co-occur with the auxiliary *zostać* to a greater degree. Stative, verbs, on the other hand, show a strong preference for the auxiliary *być*. The sporadic passive sentences with stative OEs and the auxiliary *zostać* imply a causing subevent, a change of state and thus should be treated as eventive, not stative. This observation allows us to conclude that the special behavior of OE verbs is related to their

polysemy and is reflected in Polish in the way they passivise, depending on the type of event they describe.

Keywords: Object Experiencer verbs, passivisation, verbal passives, adjectival passives, Polish.

References

Alexiadou, Artemis, and Gianina Iordăchioaia. 2014. "The psych causative alternation." *Lingua* 148: 53-79.

Arad, Maya. 1998. Psych-notes. *UCL Working Papers in Linguistics 10*. London: University College.

Arad, Maya. 1999. What Counts as a Class? The Case of Psych Verbs. *MIT Working Papers in Linguistics 35*: 1–23. Cambridge, MA: MIT Press.

Biały, Adam. 2005. *Polish Psychological Verbs at the Lexicon-Syntax Interface in Cross-linguistic Perspective*. Frankfurt am Main: Peter Lang.

Fábregas, Antonio, and Rafael Marín. 2015. "Deriving individual-level and stage-level psych verbs in Spanish." *The Linguistic Review* 32(2): 227-275.

Gehrke, Berit. Forthcoming. "Adjectival participles, event kind modification and pseudo-incorporation." *Natural Language and Linguistic Theory*.

Grafmiller, Jason. 2013. The semantics and syntactic choice. An analysis of English emotion verbs. Ph.D. diss. Stanford University, Stanford, CA.

Landau, Idan. 2010. *The locative syntax of Experiencers*. Cambridge, MA: MIT Press.

Pesetsky, David. 1995. *Zero Syntax: Experiencers and Cascades*. Cambridge, MA: MIT Press.

Wasow, Thomas. 1977. "Transformations and the Lexicon." In *Formal Syntax*, edited by Peter Culicover, Thomas Wasow and Adrian A. Akmajian (eds.), 327-360. New York: Academic Press.

Bobaljik's Root Suppletion Generalization as an Instance of the Adjacency Condition

Pavel Caha

Masaryk University, Brno, Czech Republic
`pcaha@mail.muni.cz`

Background. The talk discusses Bobaljik's (2012:4) "Root Suppletion Generalization" (RSG). The generalization says that adjectival root suppletion can be triggered only by comparative/superlative markers that are in the same word as the root. Bobaljik captures RSG by a new condition on allomorphy, according to which phrasal nodes block allomorphy; in other words, allomorphy is restricted to relations within a complex head.

There is a tension between Bobaljik's implementation and some recent work (e.g., by Koopman and Szabolcsi (2000), a.m.o.), which suggests that words do not correspond to heads, but should in fact be analyzed as phrasal objects. The question is whether and how these two independent strands of work can be reconciled.

My main claim is that Bobaljik's account of RSG in terms of a specific locality condition is superfluous. I show that in all the relevant cases, allomorphy is independently excluded by the so-called Adjacency Condition (Siegel 1978) (which Bobaljik also adopts in addition to his new condition). The adjacency condition says that the form of the root may be sensitive only to a morpheme that is directly attached to it. **The consequence** is that we can have a framework where the RSG is explained by a property ("structural adjacency") that can be attributed both to two nodes in a head or two nodes in a phrase. There is no evidence from RSG for the claim that "words are special."

The data. The empirical strength of RSG can be best seen in languages where morphological and periphrastic comparatives may be formed side by side; see (1) from Bobaljik's work.

(1) Greek   POS 'good'   CMPR = 1 word 'bett-er'   CMPR = 2 words 'lit. more good'
            kak-ós   *[cheiró-ter]-os*   *pjo [[kak]-ós]*

In (1), the CMPR affix *ter* triggers root suppletion; the non-affixal *pjo* doesn't. According to Bobaljik, this is because *pjo* is not in the same complex head. But this explanation is not needed. We independently expect the adjacency condition to rule this example out: *pjo* cannot trigger suppletion because it is not the first morpheme added to the root: *-os* intervenes.

Explaining RSG by adjacency has good consequences in Bulgarian, where (according to Bobaljik) comparatives are formed by a separate (clitic) word *po*. Under Bobaljik's account of RSG, *po-* is thus expected not to trigger suppletion. This is almost true, because Adjs in BG take an obligatory Agr suffix, which intervenes between *po* and the root, e.g., *po-[[guljam]-a]*, [CMPR-[big-fem]]. However, there is one case where (unexpectedly for Bobaljik) *po* triggers suppletion (*mnogo – po-veče* 'many-more'). Crucially, *po-veče* is unique and shows no agreement, so the adjacency condition correctly describes the facts.

Another argument for adjacency comes from Finnish. In Finnish, the order of morphemes in the superlative is such that it is incompatible with a head movement account (we get ROOT-SUPERL-COMPR). This order can only be derived by phrasal movement, so (nothing

else said) Bobaljik expects that Finnish shows no root suppletion. But this is not the case, a fact compatible with the adjacency account.

Finally, I turn to languages such as English where it appears that the adjacency condition falls short of explaining the ban on forms like *more bett*, because the two morphemes are adjacent. However, I argue that the example actually decomposes roughly into [[mo-re] bett], so the first morpheme that attaches to –er is *mo-* (itself a suppletive version of *much*), and hence, –er cannot reach beyond the first merged *mo* to condition allomorphy on the root.

References

Bobaljik, Jonathan. 2012. *Universals in Comparative morphology.* Cambridge, MA: MIT Press.

Siegel, Dorothy. 1978. "Th*e Adjacency Condition and the Theory of Morphology.*" NELS VIII.

Koopman, Hilda, and Anna Szabolci. 2000. *Verbal Complexes.* Cambridge, MA: MIT Press.

Causal Connective *protože* across Registers

Anna Čermáková, Zuzana Komrsková, Marie Kopřivová, and Petra Poukarová

Charles University, Prague, Czech Republic

anna.cermakova@ff.cuni.cz; zuzana.komrskova@ff.cuni.cz;
marie.koprivova@ff.cuni.cz; petra.poukarova@ff.cuni.cz

Written and spoken variety of Czech differ in many respects. Any research dealing with spoken language needs to balance between linguistic features inherent to spoken language per se (cross-linguistically) and features that belong to that particular language. Comparisons between written and spoken Czech (as research into spoken Czech seems to be mostly comparative) have been so far focused on morphological, lexical and phonological features. Very few studies include syntactic features as well (cf. Bermel 2000) and none is, to our knowledge, based on large scale authentic spoken data. There is no comprehensive description of the syntax of spoken Czech and we thus "lack a benchmark from speech that can be relied on" (Bermel 2000, 63).

This study aims to contribute to research focused on comparing written and spoken Czech. It is situated on the borderline of lexis, syntax and pragmatics and will look in detail at Czech causal conjunction *protože* within four major registers (Biber 1991): spontaneous spoken language will be examined in contrast with three major written registers (media/newspaper texts, fiction and academic texts). The research is based on extensive corpus data (available through the Czech National Corpus project); both quantitative and qualitative approaches will be applied. The analysis also aims to look at the current part-of-speech annotation of the corpus data with regard to its applicability to spoken data.

Causal connectives belong to the most frequent conjunctions across all registers; *protože* being the most frequent, having, however, strikingly different frequencies of occurrence in the four compared registers. In written language *protože* is most frequent in fiction but it is nearly three times more frequent in our spoken data. Research into causal connectives suggests that some connectives specialize in certain domains and that there are various degrees of causality. Some studies suggest a diachronic variation show casing (English *because*) a process of shifting from prototypical subordinator to discourse marker (Stenström 1998, Burridge 2014). We focus our analysis on the functions of *protože,* distinguishing between content or real world uses, epistemic uses (cf. Czech "příčina" and "důvod", Svoboda 1954), speech act uses (Sweetser 1990) and discourse markers across the four registers.

Keywords: causal connectives, spoken vs. written language, corpus linguistics

References

Bermel, N. 2000. *Register variation and language standards in Czech.* LINCOM studies in Slavic Linguistics 13. Muenchen.

Biber, D. 1991. *Variation across speech and writing*. Cambridge: Cambridge University Press.

Burridge, K. 2014. "*Cos* – A New Discourse Marker for Australian English?" *Australian Journal of Linguistics* 34 (4): 524 – 548.

Grepl, M. – Karlík, P. 1998. *Skladba češtiny*. Olomouc: Votobia.

Stenström, A.-B. 1998. "From sentence to discourse: *Cos* (*because*) in teenage talk". In *Discourse Markers*, edited by A. H. Jucker & Y. Ziv, 127-146. Amsterdam: John Benjamins.

Svoboda, K. 1954. "O takzvaných větách příčinných a účinkových". *Naše řeč* 37 (1-2).

Sweetser, E. 1990. *From Etymology to Pragmatics*. Cambridge: Cambridge University Press.

Polish Derived Nominals with Thematic Adjectives
as Argument-Supporting Nominals

Bożena Cetnarowska

University of Silesia, Katowice (Poland)

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

Thematic group adjectives (such as *Italian, presidential*) are claimed to be restricted cross-linguistically to nominals which are not argument-supporting ones (see Marchis 2010 for Romanian and Spanish, Alexiadou and Stavrou 2010 for Greek). Event nominals modified by group adjectives are interpreted by the above-mentioned authors as names of simple events.

The present paper investigates the occurrence of thematic group adjectives in event nominals in Polish. It is argued that, even in the presence of group adjectives, such derived nominals can exhibit the characteristics of argument-supporting nominals (i.e. complex event nominals in Grimshaw's 1990 typology). They can take internal arguments (as in 1a, 1b), occur with aspectual modifiers (1a) and with agent-oriented modifiers (1b).

(1) a. *ciągłe   policyjne   kontrole   autokarów*
    constant   police.adj   checks.nom   coaches.gen
    'constant checks of tourist coaches by the police'

   b. *umyślne   prezydenckie   ułaskawienie   gangsterów*
    deliberate   presidential   pardoning.pfv.nom   gangsters.gen
    'the president's pardoning (the) gangsters deliberately'

The derived nominals in (1b) and (2) are headed by *–nie/-cie* verbal nouns, which are recognized as complex event nominals by Rozwadowska (1997) by virtue of a number of verb-like properties. Most of those properties can be identified also in verbal nominals accompanied by thematic group adjectives, e.g. the presence of grammatical aspect, the occurrence of the reflexive clitic *się* (in 2a, 2b) and the negative particle *nie-* (in 2b).

(2) a. *celowe   studenckie spóźnianie   się   na   zajęcia*
    intentional student.adj coming_late.ipfv.nom refl   on   classes
    'students' coming late to classes intentionally'

   b. *papieskie   nieangażowanie   się   w konflikty   polityczne*
    papal   not_getting_involved.ipfv.nom refl   in conflicts.acc   political
    'the pope's not getting involved in political conflicts'

Although thematic adjectives can modify either perfective or imperfective verbal nouns (cf. 1b and 2a), they are more common and more felicitous with imperfective nominals. The change of the grammatical aspect of the verbal noun in (2a, 2b) from the imperfective to the perfective diminishes the felicity of the resulting nominals in (3a, 3b).

(3) a. *?celowe   studenckie spóźnienie   się   na   zajęcia*
    intentional student.adj coming_late.pfv.nom refl   on   classes
    'students' coming late to classes intentionally'

   b. *?papieskie niezaangażowanie   się   w konflikty   polityczne*
    papal   not_getting_involved.pfv.nom refl   in conflicts.acc   political
    'the pope's not having become involved in political conflicts'

It will be suggested that this is due to the compatibility of the mass reading of the imperfective nominals (Alexiadou, Iordachioaia and Soare 2010) with the default plural interpretation of group adjectives (Marchis 2010, Moreno 2015).

Keywords: group adjectives, derived nominals, complex events

References

Alexiadou, Artemis, Gianina Iordachioaia, and Elena Soare. 2010. "Number/Aspect Interactions in the Syntax of Nominalizations: a Distributed Morphology Approach." *Journal of Linguistics* 46: 537–574.

Alexiadou, Alexiadou 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.

Grimshaw, Jane. 1990. *Argument Structure*. Cambridge, MA: MIT Press.

Marchis, Mihaela. 2010. *Relational Adjectives at the Syntax-Morphology Interface in Romanian and Spanish*. Stuttgart: University of Stuttgart dissertation.

Moreno, Mihaela Marchis. 2015. "Relational Adjectives at Interfaces." *Studia Linguistica* 69 (3): 304–332.

Rozwadowska, Bożena. 1997. *Towards a Unified Theory of Nominalizations. External and Internal Eventualities.* Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego.

The Myth of Comparability? Issues in the Design and Analysis of a Monolingual Comparable Corpus

Lucie Chlumská

Institute of the Czech National Corpus, Prague, Czech Republic

lucie.chlumska@korpus.cz

Monolingual comparable corpora, i.e. corpora consisting of two sets of texts in the same language and selected according to similar criteria (Baker 1995, 232), have become a valuable and frequently used source of data in Corpus-based Translation Studies, especially in the translation universals research. Hypotheses concerning the so-called T-universals (Chesterman 2004, 8) refer to the way translators process the target language, i.e. they are based on the comparison between translations on one hand and non-translated texts as a reference sample on the other, requiring carefully balanced data.

Corpus design is generally a complicated task; however, when it comes to translations, a whole new set of possible issues arises. One of the major problems is the disproportion in source languages: in the Czech context, English is by far the most translated language, as it accounts for more than a half of all translations (Czech National Library statistics 2003–2012). However, to be able to study the translation universals phenomenon properly, researchers need a variety of texts translated from many different languages. The need for a large corpus thus in fact contradicts the requirement of its heterogeneity and balance; there are simply not enough varied data to be included.

Another issue is the character of translated texts in the two translation directions: from a smaller language (such as Czech) to a bigger language (such as English, German, French etc.) and vice versa. The type of texts and their cultural status are often not at all comparable, e.g. widely read classics in small languages v. virtually anything in the bigger ones (Bernardini & Zanettin 2004, 57). This imbalance is most visible in parallel corpora; however, it also has implications for a monolingual comparable corpus. And finally, even though there might be similar text types to be compared and included in the corpus, cultural norms may be different and the texts may in fact have different characteristics (e.g. originally written cookbooks may differ greatly from the translated ones).

Although these issues add a big question mark behind the claim of comparability, they certainly should not prevent researchers from attempting to compile a monolingual comparable corpus in the first place. The main objective of this paper is thus to summarize major setbacks in the comparable corpus design (with the Jerome monolingual comparable corpus as a case study), to show their implications for the data analysis and interpretation (on the concrete example of simplification and convergence in translated Czech), and to suggest possible alternatives where applicable. The discussion specifically covers the following topics: text size in comparable corpora and its impact on statistical testing, text type / genre diversity issue in lexical analysis (based on n-gram and POS-gram extraction) and possible consequences of one source language prevalence.

Keywords: language of translation, translation universals, corpus design, Czech

References

Baker, Mona. 1995. "Corpora in Translation Studies. An Overview and Some Suggestions for Future Research". *Target* 7(2): 223–243.

Bernardini, Silvia and Federico Zanettin. 2004. "When is a universal not a universal? Some limits of current corpus-based methodologies for the investigation of translation universals." In *Translation Universals – Do They Exist?*, edited by Anna Mauranen and Pekka Kujamäki, 53–62 . Amsterdam–Philadelphia: John Benjamins.

Chesterman, Andrew. 2004. "Hypotheses about translation universals". In *Claims, Changes, and Challenges in Translation Studies*, edited by G. Hanse, K. Malmkjær and D. Gile, 1–14. Amsterdam-Philadelphia: John Benjamins.

Chlumská, Lucie. 2013. *Jerome – a monolingual comparable corpus for the research of translated and non-translated Czech.* The Institute of the Czech National Corpus, Faculty of Arts, Charles University in Prague. Available at http://www.korpus.cz

Czech National Library Statistics, 2003–2012. Accessed August, 2015, available at http://www.nkp.cz/sluzby/sluzby-pro/sluzby-pro-vydavatele/vykazy

Person Reference and Social Understanding: Laboratory Data from Czech Toddlers

Anna Chromá and Filip Smolík

Charles University, Prague, Czech Republic and Academy of Sciences of the Czech Republic
anicka.chroma@gmail.com; smolik@praha.psu.cas.cz

There is evidence that children do not always grasp the correct principle of 1st and 2nd person reference (I/You) at first: they use proper names, make reversal errors, or use both forms interchangeably (see Tanz, 2009: 49–60). The difficulties may rest in the linguistic as well as the social aspects of the phenomenon of person reference. For the correct use and comprehension of 1st and 2nd person reference, children need to achieve certain level in their syntactic and morphological development, and they need to understand both the difference between self and others, and the perspective of the speaker. The social abilities considered here may be related to later Theory of Mind which is the ability to understand people as subjective individuals with different emotions, desires and beliefs.

The factors of linguistic and social development have rarely been examined together (but see Marková and Smolík, 2014). In our study, we analyze children's performance in production and comprehension of person reference, as well as in tasks aimed on selected social abilities and general language development. We expect that the effect of the social performance will explain significant amount of variation in person reference above and beyond the effect of general language development, and vice versa.

Our participants were typically developing 2.5 years old Czech toddlers (age range: 28–32 months). So far, data from 51 children (from the whole sample of 66 children) were analyzed. The laboratory testing took place individually and was divided into two sessions (45+25 minutes). To measure the Theory of Mind precursors, the children were given three tasks concerned with

(1) visual perspective taking: the child and the mother sat opposite each other; a card depicting an animal was shown to the child and the child was asked to show the picture to the mother; the orientation of the card and the child's gaze direction were evaluated;

(2) pretend play: the examiner pretended to drink some water and eat some cookies and then invited the child to engage in these activities too; the adequacy of the child's engagement was evaluated; and

(3) intention understanding: the examiner failed to do certain actions (e.g. to reach for a box she have previously let fall) so that her intention was obvious but never expressed verbally; she prompted the child to help her by looking at the child and addressing her/him with her/his name; the child's understanding of the intention and her/his helping behavior was evaluated.

Loveland (1984) and Ricard et al. (1999) have shown linkage between pronouns and visual perspective in English children. The other two tasks were not yet used in relation to the person reference. We adopt five other tasks from the previous studies concerned with person reference production and comprehension and we use one lexical and one grammatical comprehension test as measures of the general language development.

Our key analyses examine the effects of pretense, intention understanding and lexical development on production and comprehension of person reference. Lexicon and pretense have significant concurrent effects on the comprehension score (see table 1), and lexicon, pretense and intention understanding have significant concurrent effects on the production score (see table 2). The models suggest that person reference in production and comprehension is related to somewhat different sets of social cognition measures. However, both the models contain a linguistic as well as a social predictor, as hypothesized. The results thus reveal that both the linguistic factors and social development measures have independent effects on the acquisition of person reference.

Keywords: deixis; person reference; Theory of Mind

Table 1 The first regression model examines the effect of lexical score and pretend play understanding on the correct *comprehension* of person reference. We use aggregated score from the three tasks on comprehension of person reference as dependent variable.

	p-value	ΔR^2
Lexical score	< 0.001	0.291
Pretense	< 0.001	0.156

Table 2 The other model examines the effect of lexical score, pretend play and intention understanding on the correct *production* of person reference. We use aggregated score from the two tasks on production of person reference as dependent variable. Both, the correct name (3rd person) and pronoun (1st + 2nd person) production were counted as correct responses.

	p-value	ΔR^2
Lexical score	< 0.001	0.122
Pretense	< 0.001	0.142
Intention	< 0.001	0.210

References

Loveland, K. 1984. Learning about points of view: Spatial perspective and the acquisition of 'I/you'. *Journal of Child Language* 11: 535–556.

Marková, G. and Smolík, F. 2014. What Do You Think? The Relationship between Person Reference and Communication about the Mind in Toddlers. *Social Development* 23 (1): 61–79.

Ricard, M., Girouard, P. and Gouin Décarie, T. 1999. Personal pronouns and perspective taking in toddlers. *Journal of Child Language* 26: 681–697.

Tanz, C. 2009. *Studies in the Acquisition of Deictic Terms*. Cambridge: Cambridge University Press.

Do Bi-Aspectual Verbs in Czech Express Grammatical Aspect?

Jan Chromý,[1] *Štěpán Matějka*[1]*, and Jakub Dotlačil*[2]

[1]Charles University in Prague, Czech Republic; [2]University of Groningen, Netherlands

`jan.chromy@ff.cuni.cz; stepan.matejka@ff.cuni.cz;`
`j.dotlacil@gmail.com`

As other Slavic languages, Czech distinguishes both grammatical (perfective and imperfective) and lexical aspect (cf. Schmiedtová – Flecken, 2008). Aside from perfective (Pf) and imperfective (Ipf) verbs, there is a specific group of so-called bi-aspectual (BA) verbs which can be classified as both perfective and imperfective (Komárek, 2002) because they can occur in contexts that are not compatible either with Pf verbs (e.g. combination with a phasal verb), or Ipf verbs (e.g. combination with *až* 'when') (cf. Veselý, 2008).

The main hypothesis we will present in the poster is that the bi-aspectual verbs are in fact aspectless, i.e. there is no real evidence that they do have grammatical aspect. This hypothesis is supported by four self-paced reading experiments we conducted so far. In the main experiment, we examined the differences in reading times (RTs) of sentences that were distinguished only by their main clause verb. Every verb appeared in one of three forms: a BA verb (e.g. *akceptovat* 'to accept'), or its Pf equivalent (e.g. *přijmout* 'to accept'), or its Ipf equivalent (e.g. *přijímat* 'to accept'). The verbs were followed by *dokud* 'until' which is not compatible with Pf verbs.

In the experiment, we used 12 sentences with durative BA verbs (or their equivalents) and 12 sentences with punctual/iterative BA verbs (or their equivalents) as experimental items (see Item Examples below) and 72 filler sentences. All the verbs were transitive, they were in past tense and had plural objects. In other words, our experiment tested the compatibility of 4 types of predicates with *dokud*: BA durative, and BA punctual/iterative, Pf verbs, Ipf verbs. Our main question was if there is a difference in RTs of different predicate types. Altogether, we tested 82 subjects. Based on linear mixed-effects model, we found significantly higher RTs on *dokud* in sentences with Pf verbs than Ipf or both types of BA verbs. These findings suggest that BA verbs are processed differently than Pf verbs. In the other two experiments, we found that there are differences between processing of punctual/iterative BA verbs and Ipf verbs. The fourth experiment is focused on processing of BA, Pf and Ipf verbs used in sentences with *až* 'when' clause which is not compatible with Ipf verbs.

On the basis of the experiments, it seems that BA verbs in Czech do not behave the same as Pf or Ipf verbs. BA verbs can be used in contexts in which PF and Ipf verbs cannot. It seems that from the processing point of view, it makes sense to count them as grammatically aspectless. A less strong claim would be that they are aspectually underspecified. This is in accordance also with the fact that there are no structural constraints for using BA verbs and that most BA verbs are borrowings which tend to become either imperfective, or perfective in their later evolution (Jindra, 2008).

Keywords: aspect; bi-aspectual verbs; self-paced reading

Item Examples

(1) Tolerantní podnikatel **akceptoval/přijal/přijímal** změnu právního předpisu,
tolerant bussinessman accepted change legal regulation,
dokud firma vytvářela vysoké zisky.
until company produced high incomes.

(2) Pražský radní **koncipoval/navrhl/navrhoval** plány dalšího rozvoje,
Prague councillor outlined plans future development,
dokud primátorka slibovala rozsáhlé změny.
until mayor promised vast changes.

References

Jindra, Vojtěch. 2008. "Vývojová dynamika obouvidových sloves cizího původu na základě korpusových dat." *Slovo a slovesnost* 69: 192–210.

Komárek, Miroslav. 2002. "Ke vztahu mezi videm a tzv. způsoby slovesného děje." In *Čeština – univerzália a specifika 4*, edited by Zdeňka Hladká and Petr Karlík, 135–40. Praha: Nakladatelství Lidové noviny.

Schmiedtová, Barbara, and Monique Flecken. 2008. Aspectual concepts across languages: Some considerations for second language learning. In *Cognitive Approaches to Pedagogical Grammar*, edited by Sabine De Knop and Teun De Rycker, 357–84. Berlin: Mouton de Gruyter.

Veselý, Luboš. 2008. "Testy pro zjišťování vidové hodnoty vidového paradigmatu slovesa (indikátory slovesného vidu)." *Slovo a slovesnost* 69: 211–20.

On Dative Clitics and Nominalizations in Romanian

Alexandra Cornilescu

University of Bucharest, Bucharest, Romania
`alexandracornilescu@yahoo.com`

1. Introduction: the data, aim

It has recently been shown that C(litic) D(oubling) is sensitive to the *v*P configuration where the Dative DP merges. The difference is that CD is *required* in unaccusative configurations (1), while being optional in ditransitive configurations (2).

(1)   *Îi vin   idei   lui Ion.*   **Vin idei lui Ion.*
          cl-Dat come ideas Ion(Dat)   come idei Ion(Dat)   'John is getting ideas.'

(2)   *Am oferit/ Le-am oferit bomboane copiilor.*   'I offered sweets to the children.'
          have- offeres/cl-Dat-have offered sweets.Acc children.the.Dat

A second difference is that verbs for which CD of the Dative is obligatory do not nominalize, while Verbs which show optional CD allow nominalizations. (**venirea unei idei lui Ion* (the coming of an idea to Ion), *oferirea de bomboane copiilor* (the offering of sweets to the children).

Aim The goal of the paper is to explain the nature of this unfailing correlation, between obligatory Dative doubling by the clitic and the absence of nominalizations. This presuppose: a) understanding the difference between configurations which require Dative doubling and configurations where doubling by the clitic is optional; b) understanding why configurations with obligatory Dative clitics do not feed nominalizations.

2. Why unaccusative configurations require doubling of the Dative by the clitic

Assumptions: 1. Since in languages with overt Appl, Appl is always a *suffix*, Appl should always merge above some VP projection, so that V raises to the left of the Appl suffix.(Georgala 2012, Larson 2010). 2. Argument-introducing heads (e.g.Voice, Appl, P) also have *expletive* variants, where they bear no θ-feature, but are endowed with a case feature (Wood & Marantz, 2015). Thus, when the Dative is non-core, and it is thus not part of the verb's argument structure, Appl is endowed with both a θ- and a case feature and introduces a supplementary argument. When the Dative is part of the verb's a-structure, Appl may simply be an expletive case-licensor. 3. Clitics are functional heads which license their associates, when all their features have been valued. On their way to T, clitic DPs stop in a position above the *v*P (=K(ase)P(hrase)), where they value their Case feature (Săvescu 2009). 4. Romanian Datives are uniformly licensed by Appl heads (Diconescu&Rivero, 2007, Tigău 2014).

The analysis Consider the unaccusative *v*P of a change of location verb, like *veni* (come). The event structure of such a *v*P is reduced to *v + a PP-small clause* (Irwin 2011), with the Theme as subject and a Goal, realized either as a PP or a null P and a Dative DP. If the ApplP must be sister to VP, its only position in the unaccusative *v*P is above *v*P (3). The ApplP is syncretic with the KP, and may or may not also contain θ-features. The clitic raises pied-piping the whole DP, which remains accessible to the clitic for licensing since it has exited

the *v*P phase. Evidence for the intermediate landing site is that CD-ed IOs may bind the subject or scope over it. (e.g. *Ce i-au cumpărat Evei fraţii ei*? (what cl-Dat have bought Eve-Dat brothers.the her).

(3)[Appl/KPAppl/K[uPers, uCase] [$_v$P[vin]$_v$[PP[DPTheme idei P[∅] [DPGoal [DPlui Ion]D[îi [uPers] *pro*]]

The question remains why *v*+Appl cannot license the IO, requiring the clitic. We propose to relate the obligatory nature of the clitic in unaccusative *v*Ps to the "defective" nature of unaccusative verbs (Pesetsky and Torrego, 2004:512): unaccusatives Agree and may trigger movement, but do not erase the uninterpretable features of the goal, since their φ-set is defective, so that a regular head is needed for a proper application of Agree. The combination *v*+Appl is defective in this sense. The clitic is required to provide an alternative set of φ-features for regular Agree, allowing *v*+Appl+φ to value the case of the Dative DP.

In a nutshell, the obligatory nature of the clitic in unaccusative configuration follows from the defective nature of the the unaccusative verb, the only verbal lexical head in the *v*P.

3. Nominalizations of unaccusatives and ditransitives

When one turns to the absence of nominalizations, another property of the configuration in (3) becomes significant, namely the position of Appl above the *v*P, i.e. in the functional domain of the *v*P. The configuration in (3) cannot be input to nominalization, since the Romanian event nominalizers do not take scope over the functional domain of the verb with the possible exception of Aspect. The nominalizer precisely replaces Appl in (3), leaving the Dative unlicensed. In contrast, ditransitive configurations are correctly expected to allow nominalizations, since, under any analysis, the Appl head merges below *v*.

Keywords: applicative heads, dative clitics, nominalization, unaccusative verbs, case

References

Diaconescu, Constanţa Rodica and Luisa Rivero Maria Luisa.2007. An Applicative Analysis of Double Object Constructions in Romanian. *Probus* 19 (2): 209-233

Georgala, Effi. 2012. *Applicatives in their Structural and Thematic Function: A Minimalist Account of Multitransitivity*. PhD diss., Cornell University.

Larson Richard. 2010. On Pylkkänen's Semantics for Low Applicatives. *Linguistic Inquiry* 41: 701-704.

Pestesky David and Esther Torrego Esther, 2004. Tense, Case and the Nature of Syntactic Categories, in Guéron Jacqueline and Jacqueline Lecarme (eds.) *The Syntax of Time. Cambridge*: MIT Press. 496-538

Săvesco Oana. 2009. *A syntactic analysis of pronominal clitic clusters in Romance: The view from Romanian*. PhD diss., NYU.

Tigău Alina. 2014. The two-object construction in Romanian and German.In Cosma Ruxandra e. a. (eds), *Komplexe Argument-Strukturen*, Berlin: Walter de Gruyter. 85-144

Wood Jim and Alec Marantz Alec. 2015. The interpretation of external arguments, mss. lingbuzz/002487

On the Border between Relative and "Consecutive Clauses" Constructions: The Case of [NP Det [-def] N que X] Construct in Spoken French: A Corpus Based Analysis

José Deulofeu

Aix-Marseille University, France

`Henri.Deulofeu@univ-amu.fr`

I 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* (Coral-Rom)
these are places where you cannot go

(2) *c'est des filles qu'on peut pas leur parler*
these are girls that it is impossible to speak to them

(3) *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 some 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'

My presentation addresses the syntactic status of these utterances. The traditional analysis in French litterature 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 to the standard wh-relatives *(des endroits où tu peux pas aller, des filles à qui on ne peut pas parler)*. Abeillé & Godard (2006) observe that this analysis cannot be extended to (4) where no resumptive pronoun appears:

(4) *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 (4), in which *que* introduces a plain IP licenced by 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 no such restriction is observed in wh-relative clauses. Moreover, whereas examples with definite determiners quoted in the literature (Guiraud 1966, Gapany 2004):

(5) *l'homme que je lui ai dit ça* (the man that I said that to him)

are strongly sociolinguistically marked (Gadet 2003), some of our examples are from educated speakers in casual conversation. One way to take these facts in account is to analyze these constructs as instances of non standard consecutive clauses. In the standard corresponding consecutive clauses: the que-clause is governed by a N with an obligatory indefinite determiner and licenced by a quantifier adjective node (*tel* = such) in (4'):
(4') *il y a des feux tels qu'il faut appeler les pompiers tout de suite*

I propose that the "consecutive" clause is licensed by a [+ quality] underspecified feature (grossly meaning « of such quality »). This feature is borne by the quantifier in the standard construct and by the indefinite determiner in the non standard one. This semantic feature is independently motivated by the apparent tautological sentence: *un homme est toujours un homme*. The intended meaning: » a man (as exemplar of the species) shows always the characteristic qualities of a man » involves the activation of the [+ quality] feature in the second occurrence of *homme*. In both constructs the que-clause can be considered as « niece licensed » (licenced by a daughter of the NP), which is not the case for a relative clause. Under this analysis, the semantic interpretation of the whole construct is straightforward: the que-clause does not directly convey, as proposed by Abeillé & Godard, a characteristic property of the head, rather it brings a fact or a complex situation on the basis of which this property can be inferred. The "consecutive" clause helps in specifying the underspecified [+quality] feature. Notice that in our example (3) not only can the clitics not be considered as resumptive pronouns, but the construct following *que* is not a standard IP but a discourse pattern built upon a concatenation of IPs. This kind of extension of the syntactic form of the construct introduced by *que* is not observed in our data in relative clauses headed by definite determiners, whereas it can be found in overt consecutive clauses:

(5) *et le mec il est tellement bouleversé qu' il prend le papier il le lit pas il le met dans sa poche + puis il s'en va*
and the guy he is so much upset that he takes the sheet he doesn't read it he puts it in his pocket and then he goes away

Considering [NP Det [-def] N que X] as a variant of "consecutive adjunct clause" explains in a natural way this parallel behavior. Additionally, it dispenses with the extra Topic-comment interpretive rule to the benefit of a rule independently necessary for standard consecutive clauses and, beyond, for comparative clauses.

A further consequence of this analysis is that, contra current litterature assupmtions, there are no instances of relative clauses with resumptive pronoun in contemporaneous spoken French, probably with the exception of subject position (Sportiche 2011).

Keywords: Syntax; French; corpus linguistics; relative clause

References
Abeillé, Anne & Godard, Danielle. 2006. "Les relatives sans pronom relatif." In *Le français parlé , normes et variations*, edited by Abecassis Michaël, 37–69. Paris: L'harmattan.
Cresti Emanuela, Moneglia M. 2005. *C-OralROm, Integrated Corpus of Spoken Romance Languages.* Amsterdam: John Benjamins.
Gadet, Françoise. 2003. "La relative française, difficile et complexe." In *Grammaticalisation et réanalyse*, edited by S. Kriegel, 251–68. Paris: Editions du CNRS.
Gapany, Jean. 2004. *Formes et fonctions des relatives*. Berne: P. Lang.
Guiraud, Pierre 1966. "Le système du relatif en français populaire." *Langages* 3: 40-48.
Sportiche, Daniel. 2011. "French Relative Qui." *Linguistic Inquiry* 42 (1): 83–124.

Constituent Negation, Subjunctive and Alternatives

Mojmír Dočekal

Masaryk University, Brno, Czech republic
`docekal@phil.muni.cz`

Background: negation and subjunctive mood are among the most popular topics in the recent literature but formal semantics of Slavic constituent negation (CN) is still missing. CN usually requires adjacency, (1), to its focused constituent (see Borschev et al. (2006), Jasinskaja (2010)) but in case of complex NPs (2) or PPs the CN has to be non-adjacent. Similarly for German focus particles like *nur* or *sogar* – Büring and Hartmann (2001), Reis (2005). Let's assume that even Slavic CN is a focus particle (FP). In this talk I propose a uniform FP semantics for CN and concentrate on examples like (3) where CN has a scope over a subjunctive CP (see Tomaszewicz (2009)).

(1) *ne včera   ne [$_F$ majitele], ale ...
    not yesterday not owners   but
    'yesterday not owners but …'

(2) ne majitele *ne [$_F$ pivovarů]
    not owners not breweries-gen
    'not owners of breweries'

(3) ne že bych [$_F$ chtěl]   být kojícím otcem
    not that SUBJ want-1-sg BE nursing father
    'Not that I want to be a nursing father.'

The contribution of this abstract: I provide new data on CN and subjunctive in Slavic languages. Based on a corpus study (SYN2010, 500 randomly selected sentences with CN), results of which are summarized in Figure 1/Table 1 – syntactic contexts where CN appears – I propose a uniform formal semantic for Czech (Slavic) CN in (4). (4) can be applied to all types of constituents (=A from (4)) modified by CN, as will be demonstrated in the talk. The most interesting and complex among the contexts is CN modifying CP (like in (3)), I focus on this construction and propose that: (i) the subjunctive mood transfers the alternatives from the embedded clause (in line with Villalta (2008)); (ii) the alternatives can be processed by FP or used by an operator licensing NPIs/minimizers (see Guerzoni (2004)). Application of (4) to (2): (4-a). Application of (4) to (3): (4-b), again CN is applied to a set, but not to a set of entities like in (4-a) but to a set of possible worlds (propositions), still being of $\langle \alpha, t \rangle$ type. Subjunctive mood allows the negation to access the focus alternatives. In the corpus SYN2010 CN modifying an embedded clause in 99% selects just subjunctive. This claim is supported by an independent evidence: subjunctive mood in (5-a) allows the evaluation of the alternatives (on the likelihood scale) from the embedded clause. These alternatives are needed by the root negation to act as a licensor for the minimizer *sebemenší podezření* 'slightest suspicion' in the embedded clause. Indicative mood doesn't transfer the alternatives, ungrammaticality of (5-b) explained. **Discussion and proposal**: the above data give raise to a clear generalization: Slavic CN is a focus oriented particle with semantics in (4). Subjunctive mood evaluates the alternatives for a potential FP/predicate selecting or comparing the contextual alternatives (NPI licensor e.g.). (6-a) shows that verbal negation in the embedding clause licenses strict NPI in the embedded clause (c.f. Gajewski 2011 a.o.), unlike CN in (6-b), the intervention in strict NPI licensing caused by the existential presupposition of CN.

(4) If A is of type $\langle \alpha, t \rangle$, CN A is of type $\langle \alpha, t \rangle$ too, and [[*CN A*]] is the set of all *B* such that
    B doesn't have the property [[*A*]] (i.e. $B \notin$ [[*A*]]) but it has some property (*P*) that is

    an alternative to *A* (i.e. in $[[A]]^f$/ALT(A))

a) $\lambda x[\neg\, owners\_of\_breweries(x) \wedge \exists\, P[P \in ALT(breweries) \wedge owner\_of\_P(x)]]$

b) $\lambda p[\neg\, want(I, p) \wedge \exists\, P[P \in ALT(want) \wedge P(p)]]$

(5) a. Policisté   nechtěli,   aby   gangsteři měli sebemenší podezření.
    policemen want-neg-past SUBJ gangsters have slightest   suspicion
    'The policemen didn't want the gangsters to have the slightest suspicion.'

   b. #Policisté nevěděli,   že   gangsteři měli   sebemenší podezření.
    policemen know-neg-past IND gangsters have-past slightest   suspicion
    'Policemen didn't know that gangsters had slightest suspicion.'

(6) a. Policisté nechtěli, aby [StrictNPI ani jeden gangster] unikl.
    'Policemen didn't want even one gangster to run away.'

   b. ne, aby #[StrictNPI ani jeden gangster]/ten gangster unikl!
    'Not that #[even one gangster]/the gangster run away!'
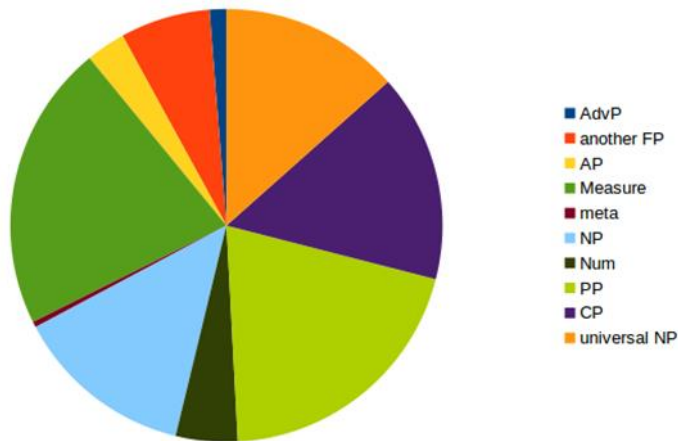
Figure 1/Table 1

Type	Percent
Measure	22
PP	20
CP	16
NP	14
universal NP	14
another FP	7
Num	5
AP	3
AdvP	1
meta	0

Keywords: negation, subjunctive, alternatives, Slavic languages

References

Borschev, Vladimir, Elena V Paducheva, Barbara H Partee, Yakov G Testelets, and Igor Yanovich. 2006. "Sentential and Constituent Negation in Russian BE-Sentences Revisited." In *Formal Approaches to Slavic Linguistics: The Princeton Meeting 2005 (FASL 14)*, 50–65. Citeseer.

Büring, Daniel, and Katharina Hartmann. 2001. "V3 or Not V3–An Investigation of German Focus Particles." *Natural Language and Linguistic Theory* 19: 229–281.

Guerzoni, Elena. 2004. "Even-NPIs in Yes/No Questions." *Natural Language Semantics* 12 (4): 319–343.

Jasinskaja, Katja. 2010. "Corrective Contrast in Russian, in Contrast." *Oslo Studies in Language* 2 (2).

Reis, Marga. 2005. "On The Syntax Of So-Called Focus Particles In German – A Reply To Büring And Hartmann 2001." *Natural Language & Linguistic Theory* 23 (2) (May): 459–483.

Tomaszewicz, Barbara. 2009. "Subjunctive Mood in Polish and the Clause Typing Hypothesis." *Formal Studies in Slavic Linguistics*: 121.

Villalta, Elisabeth. 2008. "Mood and Gradability: an Investigation of the Subjunctive Mood in Spanish." *Linguistics and Philosophy* 31 (4): 467–522.

Living on the Edge: Integration vs. Modularity in the Phonology of Czech Anglicisms

Tomáš Duběda

Institute of the Czech Language, Prague, Czech Republic

`dubeda@ff.cuni.cz`

Czech is a language in which Anglicisms form a numerous and productive lexical subclass. Their phonological adaptation (Calabrese & Wetzels, 2009) is mostly based on the phonological approximation principle, where each phoneme is replaced by its nearest counterpart within the limits of native phonotactics, e.g. *jazz* /ʤæz/ → /ʤɛs/. Other principles, such as the spelling pronunciation, original pronunciation or various kinds of analogies, are observed as well, though less frequently (Duběda et al. 2014). Czech is resistant to foreign phonological elements except those which have already been integrated into the phonological system, e.g. /f/, /g/, /o:/ (Romportl 1978).

However, a number of aspects, both static (the phonological makeup of Anglicisms) and dynamic (high phonological variability, irregular mapping between spelling and pronunciation) make it possible for a language user to identify these words as Anglicisms and to treat them, at least partly, within a specific subsystem of Czech phonology.

The phonology of Czech Anglicisms can be thus regarded as a result of two antagonistic tendencies (integrative and modular).

The purpose of the present paper is to develop and substantiate this conception by means of the following claims:

1. Phonological approximation, which corresponds to a projection of the English phonological system onto the Czech system, is rather regular (Kučera & Zeman, 1998). In a sample of 225 frequent Anglicisms used with original spelling, the phonological form recommended by dictionaries and pronunciation handbooks (Romportl, 1978; Hůrková, 1995) can be predicted for almost 80% of the entries.
2. In real usage, however, the different adaptation principles are frequently in competition, making Anglicisms phonologically more variable than native words, as can be demonstrated and quantified by the recently published Database of Pronunciation Variance of Foreign Words (Duběda, in print). In this survey, 300 phonetically problematic entries (including 148 Anglicisms), selected according to their frequency in a large corpus of Czech and integrated into carrier sentences, were pronounced by 300 native speakers. For Anglicisms, the average number of different phonological variants per entry is 12.1 (14.5 for proper names).
3. The spelling form is latently present in the mental lexicon of the language user and may interfere if the phonological form is not fully activated.
4. The pronunciation of Anglicisms in Czech can be best modelled by assuming a specific phonological subsystem, though deeply embedded in native phonology, which is activated each time a word is identified as an Anglicism. This system can be considered a "shadow phonology" of English.
5. Within this subsystem, Anglicisms are "negotiated" against well-established loans, but also against the knowledge of English, which is the most commonly spoken foreign language in the Czech Republic.
6. There is evidence for an active phonological treatment of loanwords, e.g. phonological overshoots (*Robert* pronounced as [ˈroub̩rt]), or the phonological contamination of other borrowings by English pronunciation rules (the French wine brand *Sauternes* pronounced as [ˈsotr̩n]).

7. Specific phonological subsystems may be hypothesised for other sufficiently represented lexical strata in Czech, such as Latinisms, Hellenisms or Gallicisms.

Keywords: Czech; Anglicisms; loanword phonology; loanword adaptation

References

Calabrese, Andrea, and W. Leo Wetzels, eds. 2009. *Loan Phonology*. Amsterdam, Philadelpia: John Benjamins.

Duběda, Tomáš. In print. "Empirické mapování výslovnostního úzu u cizích slov." *Slovo a slovesnost* 2/2016.

Duběda, Tomáš, Martin Havlík, Lucie Jílková, and Veronika Štěpánová. 2014. "Loanwords and Foreign Proper Names in Czech: A Phonologist's View." In *Language Structure and Language Use. Proceedings of the Olomouc Linguistics Colloquium 2013*, edited by J. Emonds and M. Janebová, 313–321. Olomouc: Palacký University.

Hůrková, Jiřina. 1995. *Česká výslovnostní norma*. Praha: Scientia.

Kučera, Jiří, and Jiří Zeman. 1998. *Výslovnost a skloňování cizích osobních jmen v češtině: Anglická osobní jména.* Hradec Králové: Gaudeamus.

Romportl, Milan, ed. 1978. *Výslovnost spisovné češtiny. Výslovnost slov přejatých*. Praha: Academia.

Nocturnal and *Vizard* as Late Modern English Metonymy-Based Synonyms of *Prostitute*

Bożena Duda

University of Rzeszów
`bozenaduda@yahoo.co.uk`

For well over a decade it has been acknowledged that, as Panther and Radden (1999:9) put it, "metonymy is not, as has often been taken for granted, merely a matter of the substitution of linguistic expressions but a cognitive process that evokes a conceptual frame". A fair number of contemporary cognitive linguists "share the assumption that metonymy is a cognitive phenomenon underlying much of our ordinary thinking and that the use of metonymy in language is a reflection of its use" (Panther and Radden 1999:2). One of innumerable plausible linguistic realisations of metonymic mappings is the subject matter of the ongoing analysis, namely the formation of synonyms of *prostitute*. From the diachronic perspective, metonymy has been part and parcel of the conceptualisaton patterns observable in the ontological realm of prostitution since Anglo-Saxon times. Already the body of Old English (O.E.) lexical items comprising *bepæcestre*, *forligerwif* and *portcwene* betray their metonymic nature, as well as the Middle English (M.E.) synonym *strumpet*. In turn, among the Early Modern English (E.Mod.E.) synonyms of *prostitute* metonymic conceptualization patterns may be observed in the semantics of such lexical items as *stew*, *streetwalker*, *walk-street*, *night-shade*, *night-trader*, *waistcoateer*, *fling-dust/-stink* and *baggage*. The body of lexical data to be studied in the foregoing includes such metonymically conditioned Late Modern English (L.Mod.E.) synonyms of *prostitute* as *nocturnal*, *night-walker*, *town-woman*, *town-miss*, *market dame*, *kennel-nymph*, *crack*, *vizard*, *mobbed-head* and *barber's chair*, extracted from the *Historical Thesaurus of English* (and testified in a number of historical lexicographic sources).

In what follows, we shall analyse the metonymic mappings within the ontological realm of prostitution with the use of the idealized cognitive model (ICM) theory as understood by Lakoff (1987). Following Kövecses (2000:34), it needs to be stressed at this point that, like conceptual metaphors, conceptual metonymies "may have stability over time", which may not necessarily be seen at the lexical level (or through *linguistic manifestations*, to use Kövecses's (2000:34) terms). This is to say that while metonymic patterns may be universal across time, their linguistic realisations may undergo alterations as a result of the changing reality, be it sociological, cultural or technological. In order to provide evidence for the stability of metonymic patterns over time the L.Mod.E. lexical items will be compared with the synonyms from the earlier historical periods.

Keywords: metonymy, onomasiology, synonyms of *prostitute*, euphemisation, idealised cognitive models (ICMs)

Selected References

Allan, Kathryn. 2009. *Metaphor and Metonymy: A Diachronic Approach*. Chichester: Wiley and Blackwell.

Benczes, Réka, Antonio Barcelona, and Francisco J. Ruiz de Mendoza Ibáñez (eds.). 2011. *Defining Metonymy in Cognitive Linguistics. Towards a consensus view*. Amsterdam/Philadelphia: John Benjamins.

Bierwiaczonek, Bogusław. 2013. *Metonymy in Language, Thought and Brain*. Sheffield/Oakville: Equinox.

Croft, William, and Alan D. Cruse. 2004. *Cognitive Linguistics*. Cambridge: Cambridge University Press.

Díaz-Vera, Javier E. 2015. *Metaphor and Metonymy across Time and Cultures. Perspectives on the Sociohistorical Linguistics of Figurative Language*. Berlin/Munich/Boston: Walter de Gruyter.

Evans, Vyvyan, and Melanie Green. 2006. *Cognitive Linguistics: An Introduction*. London: Lawrence Erlbaum Associates.

Kövecses, Zoltán. 2000. *Metaphor and Emotion. Language, Culture and Body in Human Feeling*. 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, and Mark Johnson. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.

Littlemore, Jeannette. 2015. *Metonymy: Hidden Shortcuts in Language, Thought and Communication*. Cambridge: Cambridge University Press.

Mustard, Deborah J. 2000. "Spinster: An evolving stereotype revealed through film." *Journal of Media Psychology* 4. Accessed December 20, 2015. http://web.calstatela.edu/faculty/sfischa/spinster.html.

Panther, Klaus-Uwe, and Gunter Radden (eds.). 1999. *Metonymy in Language and Thought*. Amsterdam/Philadelphia: John Benjamins.

Panther, Klaus-Uwe, Linda L. Thornburg, and Antonio Barcelona (eds.). 2009 *Metonymy and Metaphor in Grammar*. Amsterdam/Philadelphia: John Benjamins.

Discourse-Motivated Word Order Variation in Udmurt

Katalin É. Kiss and Erika Asztalos

Research Institute for Linguistics of the Hungarian Academy of Sciences, Budapest, Hungary
`e.kiss.katalin@ny01.nytud.hu; aszterik@gmail.com`

Aims: Our aim is to explain in the generative framework the word order variation of the Udmurt sentence and the different interpretations associated with the word order variants.

Data to be explained: In Udmurt, the most neutral order of a transitive sentence answering the questions 'What's new?' and 'What did XY do?' is S(Adjunct)OV. E.g.:

context$_1$: 'What's new?'
context$_2$: 'What did Sasha do?'
(1) *Saša kinoťeatryn T'erminatorez   uchkiz.*
   Alex cinema-INE Terminator-ACC   watch-PST.3SG
   'Alex watched the Terminator in the cinema.'

In contexts eliciting subject or object focus also other variants can appear. According to Tánczos (2010), sentences with object focus are either SOV (2a) or SVO (2b), while sentences with subject focus show OSV (3a), SVO (3b) or OVS (3c) (i.e., foci appear either left-adjacent to the verb or sentence-finally). Moreover, our data suggest that OSV order is also possible with object foci (2c) and SOV order with subject foci (3d). Thus, we argue that a further, sentence-initial focus position exists, as well.

(2) (a) *Saša kinoťeatryn T'ERMINATOREZ uchkiz.*
    (b) *Saša kinoťeatryn uchkiz T'ERMINATOREZ.*
    (c) *T'ERMINATOREZ Saša kinoťeatryn uchkiz.*

(3) (a) *T'erminatorez kinoťeatryn SAŠA uchkiz.*
   (b) *SAŠA uchkiz kinoťeatryn T'erminatorez.*
   (c) *T'erminatorez kinoťeatryn uchkiz SAŠA.*
   (d) *SAŠA kinoťeatryn T'erminatorez uchkiz.*

We have also found evidence of all-new sentences with a clause-final subject, e.g.:

Context: 'What's new?'
(4) *Tunne   mi   dory vuoz   kuno.*
   today   3PL.NOM   to   arrive-FUT.3SG   guest.NOM
   'A guest will come to us.'

We seek answers to the following questions: Are there any syntactic and semantic/pragmatic differences between the initial, preverbal and clause-final focus positions? Are these focus slots A or A-bar positions? Is any of them associated with the features [+contrastive] and/or [+exhaustive]? Do non-specific subjects conveying new information occupy the same position as specific, topical subjects? Or do specific subjects undergo topic movement?

Methods of investigation: Our research relies on data collected from Udmurt informants. They had to make grammaticality judgements about sentences that contained a focused item in different positions. The sentences were situated in focus-eliciting contexts, e.g., various types of wh-questions, sentences with a superlative predicate, etc. We also obtained information on their interpretative differences (the exhaustivity and the contrastivity of their foci). We used the exhaustivity tests of Szabolcsi (1981), i.e., in the case of (3c), we asked if the sentence *SAŠA kinoťeatryn T'erminatorez uchkiz, Mašajen Saša öz* 'It was Sasha who saw Terminator in the cinema, not Sasha and Masha') was contradictory. A further exhaustivity test involved numerically modified noun phrases; we asked if their numeral was interpreted as 'exactly *n*' or 'at least *n*'. The presence of the feature [+contrastive] was tested in alternative questions, and polar questions with corrective answers. We tested if specific, topical subjects and non-specific subjects occupy the same position.

We asked subjects to evaluate the different word order variants on a five-point Likert scale.

Results: Our data suggest that the left-peripheral focus position is only licensed in contrastive contexts. It is an operator position in the CP domain derived by A-bar movement. Interestingly, it appears to be available only to arguments. The preverbal focus is neither [+exhaustive] nor [+contrastive], although it can assume an exhaustive or contrastive meaning pragmatically. We concluded that it is an *in situ* information focus. Objects can be focussed in this position without any movement. Preverbal subject foci are derived either by the leftward movement of the object into Spec, TopP or by the rightward extraposition of the object. Sentence-final foci are not necessarily [+exhaustive] or [+contrastive], either. We tentatively assume that they are derived by rightward extraposition. It needs further testing if a constituent extraposed to the right can also function as a topic, and whether in the Russified Udmurt of the younger generations, a postverbal object can be an object *in situ*.

The non-specific subjects of unaccusative verbs appear either immediately preverbally, or in the clause-final focus position; they cannot occupy the left-peripheral position of specific subjects. This suggests that the left-peripheral position occupied by the subjects e.g., in (1) and (2a–c) is a topic position in Spec,TopP.

Keywords: Udmurt; information structure; word order; focus; topic

References

É. Kiss, Katalin. 1998. "Identificational Focus Versus Information Focus." *Language* 74: 245–73.

É. Kiss, Katalin. 2010. "Structural focus and exhaustivity." In *Information Structure. Theoretical, Typological and Experimental Perspectives*, edited by Malte Zimmermann and Caroline Féry, 64–88. Oxford: Oxford University Press.

Szabolcsi, Anna. 1981. "Compositionality in focus." *Folia Linguistica* 15: 141–162.

Tánczos, Orsolya. 2010. "Szórendi variációk és lehetséges okaik az udmurtban." *Nyelvtudományi Közlemények* 107: 218–228.

Winkler, Ederhard. 2011. *Udmurtische Grammatik*. Languages of the World 212. München: Lincom Europa.

Selection without Syntax: Explaining the Difference between Clauses and Nominal Phrases

Patrick Elliott

University College London, UK

`p.elliott@ucl.ac.uk`

Overview: using *explain* as a case study, we argue that syntax can be eliminated in accounting for selection of DPs vs. CPs.

Ambiguities with *explain*: Pietroski (2000) claims that the interpretation of a sentence with *explain* depends on the category of its complement. In (1a), the CP complement specifies the content of the *explanation* (the *explanans* reading), whereas in (1b) the DP complement specifies what is explained (the *explanandum* reading). Pietroski captures this distinction by claiming that CPs and DPs are assigned the CONTENT and THEME thematic roles, respectively. This commits Pietroski to a lexical ambiguity view of *explain*, but this phenomenon can also be observed with verbs such as *describe*. In (2a), the CP specifies the content of the *description*. In (2b) the nominal complement specifies what is described.

Special quantifiers: we provide evidence from Moltmann's (2013) *special quantifiers* that Pietroski's empirical generalization is incorrect: DPs may receive both *explanans* and *explanandum* readings, as shown by (3). Special quantifiers have wider, hitherto unnoticed consequences for selection. Examples like (4) standardly show that *think* strictly selects for a CP complement. Grimshaw (1979) accounts for this in terms of c-selection; Pesetsky (1982) in terms of case (*believe* assigns case, whereas *think* does not). Neither approach can be correct, since *think* allows a special quantifier as its complement (5). That special quantifiers are DPs is evidenced by (6) and (7): they do not survive under passivization, and they can appear as the complement to a preposition, unlike CPs.

Analysis: Following Moulton (2015), we propose that *that*-clauses denote *properties of individuals with propositional content*, of type <e,t>. We eliminate the basic type-distinction between individuals and events, instead implementing them as sortal distinctions in *De*. Consequently, *explain* denotes a *property of events* of type <e,t>, and the verb and *that*-clause combine intersectively, returning the set of *explaining* events with the CONTENT specified by the embedded clause. DPs headed by content nouns are of type e, and therefore must be integrated via the neo-Davidsonian thematic function THEME. Special quantifiers are free to range over *events* or *facts*, and therefore may combine with the verb directly, or via THEME. This elegantly derives Pietroski's observations without invoking the syntactic category of the complement. I explore further ramifications for the relation between the verb and its complement in the talk, as well as spelling out the compositional semantics in detail.

(1a) Nora explained [cp that Fido barked].   (1b) Nora explained [DP the fact that Fido barked].
(2a) Nora described [cp that the CEO was wearing a tie]
(2b) Nora described [DP the CEO's attire].
(3) John explained something namely – {[DP the fact that Fido barked] | [cp that Fido barked]}
(4) John {*thinks | believes} [DP the rumour that Mary is moving to Germany].
(5) John {thinks | believes} [DP something].
(6) It was believed {*[DP the rumour] | *[DP something] | [cp that Fido barked]}
(7) John hoped for {[DP Mary's return] | [DP something] | *[cp that Fido barked]}

Keywords: c-selection, s-selection, syntax-semantics interface, clausal complements, complementation, event semantics

References

Beck, Sigrid. 2006. "Intervention effects follow from focus interpretation*." *Natural Language Semantics* 14 (1): 1–56.

Grimshaw, Jane. 1979. "Complement selection and the lexicon." *Linguistic inquiry*: 279–326.

Moltmann, Friederike. 2013. *Abstract objects and the semantics of natural language*. Oxford University Press.

Moulton, Keir. 2015. "CPs: copies and compositionality." *Linguistic Inquiry*.

Pesetsky, David Michael. 1982. "Paths and categories." PhD diss., Massachusetts Institute of Technology.

Pietroski, Paul M. 2000. "On explaining that." *The Journal of philosophy*: 655–62.

Non-Intersective Readings in the Slavic Noun Phrase:
Diagnosing Two Varieties of Left Branch Extraction

Patrick Elliott[a] *and Andrew Murphy*[b]

[a]University College London, UK; [b]Universität Leipzig, Germany
`p.elliott@ucl.ac.uk;andrew.murphy@uni-leipzig.de`

Overview: we examine *Left Branch Extraction (LBE)* (Ross 1967, Corver 1990) in Slavic. Based on evidence from *non-intersective* readings of adjectives, we argue that 'LBE' reflects two distinct strategies: (i) literal extraction from the edge of the Noun Phrase, and (ii) a base-generated long-distance dependency.

LBE: extraction of adjectival modifiers from the DP is impossible in, e.g., English (1), but possible in many Slavic languages, such as Serbo-Croatian (SC) (3) and Czech (5) (see Bošković 2005 for an overview).

Non-intersective readings: some adjectives are ambiguous between *intersective* and *nonintersective* readings. In (4a) the *intersective* reading entails the Olga is both a dancer, and beautiful. The *non-intersective* reading entails that Olga dances beautifully, but not that she is beautiful *per se*. Similarly, under their non-intersective readings, (2) entails that Meri barely works, and (5) entails that Marie has known her friend for a long time.

Analysis: we follow Larson (1998) in claiming that certain nouns introduce an event variable, which certain adjectives can modify. The event variable is closed off at a fixed position in the NP by a covert event quantifier GEN, partitioning NP into the *evenitive domain* and *noneventive domain*. Non-intersective adjectives are merged below GEN, and intersective adjectives are merged above. This explains why the non-intersective reading is unavailable when (i) the modifier is a predicate (4b), and (ii) there is an intervening intersective adjective (4d). It is not bled by DegP inversion (4c), rather the moved DegP can reconstruct to its base position below GEN. (4c) suggests that if LBE is literal extraction from the NP (as in Bošković 2005) the non-intersective reading should be available, since the moved DegP should reconstruct to its base-position below GEN. This is true for Czech (5) but not for SC (3) (we provide a cross-linguistic survey in the talk). We argue that in Czech-type languages, LBE is literal extraction from the NP, but in SC-type languages, it is a *scope-marking* construction involve base-generation of a *wh*-operator in SpecCP. In the talk, we provide additional evidence for these two strategies from *intervention effects* (Beck 2006).

(1) *[DegP How beautiful]$_i$ is Olga [DP a t_i dancer]?

(2) [NP Koliko teškog neradnika]$_i$ je   Meri   zaposlila t_i?
     how   heavy   non-worker.ACC   be.3P.SG   Meri.NOM   hire.3P.SG.PAST
     $^?$*intersective*, ^{OK}*non-intersective*

(3) [DegP Koliko teškog]$_i$ je   Meri   zaposlila   [NP t_i neradnika]?
     How   heavy   be.3P.SG   Meri.NOM   hire.3P.SG.PAST   non-worker.ACC
     ^{OK}*intersective*, **non-intersective*

(4a) Olga is [DP a [GEN [DegP beautiful] dancer]].   (4b) [DP That [GEN dancer]] is [DegP beautiful]
     ^{OK}*intersective*, ^{Ok}*non-intersective* ^{OK}*intersective*, **non-intersective*

(4c) [DP [DegP How beautiful]$_j$ a [GEN t_j dancer]]$_i$ is Olga t_i? ^{OK}*intersective*, ^{Ok}*non-intersective*

(4d) Olga is [DP a [DegP beautiful] [DegP talkative] [GEN dancer]].^{OK}*intersective*, **non-intersective*

(5)   [DegP   Jak   starého]$_i$ Marie včera   potkala   [NP t_i přítele]?
           How   old.ACC   Marie yesterday   met   friend.ACC
     ^{OK}intersective, ^{OK}non-intersective

Keywords: Left branch extraction, Slavic, syntax-semantics interface, adjectival modification, locality

References

Beck, Sigrid. 2006. "Intervention effects follow from focus interpretation*." *Natural Language Semantics* 14 (1): 1-56.

Bošković, Željko. 2005. "Left branch extraction, structure of NP, and scrambling." *The free word order phenomenon: Its syntactic sources and diversity*: 13-73.

Corver, Norbert Ferdinand Marie. 1990. "The syntax of left branch extractions." PhD diss., Katholieke Universiteit Brabant.

Larson, R. K. 1998. "Events and modification in nominals." In *Proceedings of Semantics and Linguistic Theory (SALT 8)*, edited by D. Strolovitch and A. Lawson, 145–168. New York: Cornell University, Ithaca.

Ross, John Robert. 1967. "Constraints on variables in syntax." Ph.D. diss., Massachusetts Institute of Technology.

How Formal Lexical Entries Produce Paradigms: The French Clitic System

Joseph E. Emonds

Palacky University, Olomouc, Czech Republic
`jeemonds@hotmail.com`

Systems of pronominal clitics for arguments and adverbial adjuncts of verbs in Romance languages have many regular and formal properties that widely accepted grammatical models have not been able to satisfactorily account for. Most recent analyses center on some of these properties and leave several others to the side (Adger and Harbour 2007; Cardinaletti 2008; de Cat (2002); Emonds 2001; Perlmutter 1971)). Empirically, French provides a typical system.

   Their analysis in formal grammar needs to account for:

- Their internal word orders, which do not reflect the order of phrasal arguments. They often conform to the Mirror Principle (Baker 1985).
- Whether they are proclitic or enclitic, with proclitic status favoured. More generally, the devices needed to account for their word-internal positions (Lieber 1980).
- Their 'structural distance' allowed between a clitic and the argument it replaces (Embick and Noyer 2001; Emonds 1999).
- Two opposing tendencies, to have the same form as strong form pronouns and partial departures from this pattern (Kayne 1975).
- The fact that a language's clitic system is 'complete' or doesn't exist at all.
- The possibility that some clitics are actually phonologically empty (Rizzi 1986).
- A recurrent pattern whereby grammatical number, unlike case, doesn't affect clitic ordering.

Taken together, these properties point to a type of analysis in which groups of clitics are analyzed as single lexical entries inserted in Phonological Form, with allomorphs specified by extensive use of the parentheses/ brace notations. In French, the groups include adverbial clitics, clitics marked for person, and third person non-reflexive clitics. Lexical entries for each group will be formalized (cf/ Borer 1985) and it will be explained how their formal properties predict their empirical patterns (as in e.g. Veselovská and Vos 1999).

References

Baker, Mark. 1985. The Mirror Principle and Morphosyntactic Explanation. *Linguistic Inquiry*, vol. 16.

Borer, Hagit. 1984. *Parametric Syntax: Case Studies in Semitic and Romance Languages*. Dordrecht: Foris.

Adger, David and Daniel Harbour 2007. "Syntax and syncretisms of the Person Case Constraint." *Syntax* 10.1, 2-37.

Benveniste, Émile. 1960. *Problemes de linguistique générale.* Paris: Gallimard.

Borer, Hagit. 1984. *Parametric Syntax: Case Studies in Semitic and Romance Languages*. Dordrecht: Foris.

Cardinaletti, Anna. 2008. "On different types of clitic clusters." In *The Bantu-Romance Connection. A comparative investigation of verbal agreement, DPs and information structure.* Cécile de Cat and Katherine Demuth (eds.). Ansterdam: John Benjamins.

De Cat, Cécile. 2002. *French Dislocation.* PhD dissertation, University of York.

Embick, David and Ralph Noyer. 2001. Movement Operations after Syntax. *Linguistic Inquiry,* 32, 555-595.

Emonds, Joseph . 1999. "How clitics license null phrases: a theory of the lexical interface." In van Riemsdijk (1999: 291-367).

Emonds, Joseph. 2001. "La relation entre la Dislocation à Droite et le clitique franco-italien *en/ne*." *Journal of the Linguistic Society of Japan* 119, 1-32, 2001.

Kayne, Richard. 1975. *French Syntax.* Cambridge: MIT Press.

Lieber, Rochelle. 1980. *On the Organization of the Lexicon.* Cambridge: MIT. PhD dissertation.

Perlmutter, David. 1971. *Deep and surface structure constraints in syntax.* New York: Holt, Rinehart and Winston.

Rizzi, Luigi. 1986. Null Objects in Italian and the Theory of *pro. Linguistic Inquiry* 17, 501-557.

van Riemsdijk, Henk. 1999. *Empirical Approaches to Language Typology: Clitics in the Languages of Europe.* Berlin: Mouton de Gruyter.

Veselovská, Ludmila and Riet Vos. 1999. In van Riemsdijk (1999)

Reporting Verb *Said* and Its Czech Translations

Lenka Fárová

Charles University, Prague, Czech Republic

`lenka.farova@ff.cuni.cz`

The question of shifts in translating reporting verbs, especially English verb *said*, into Czech has recently occurred in several studies. Corness (2009, 171) points out that at least some Czech translators of English fiction tend to distort narrative structure and style of the original text by introducing semantically and stylistically loaded reporting verbs instead of neutral *said*. This neutral reporting verb is however in about 10% of cases accompanied by an adverb of manner.

As Czech translations influenced by the stylistic tradition introduced mainly by Levý (1998, 144) tend to avoid repetition, it can be expected that translators will render the modifying adverbs accompanying the verb *said* with reporting verbs in which the semantic information of the adverb is somehow included (e. g. *said accusingly − vyčetl/vyčetla*, *said apologetically − omlouval/omlouvala se*).

The investigation is based on a sub-corpus created from the parallel corpus InterCorp, version 8 (available at http://www.korpus.cz/intercorp) containing fiction originally written in English. The size of the sub-corpus is about 11 million words. The study focuses mainly on the most prototypical pattern, i.e. *said* followed by an adverb ending in *–ly*.

The most common adverbs modifying reporting verb *said* are *quietly*, *softly*, *slowly* and *quickly*, but more than 500 different adverbs occurred in this position in total, of which 200 were unique occurrences. An analysis of translation equivalents shows that most of the translations keep the structure of the original (verb + adverb) and the expected use of the more expressive verbs that Czech otherwise commonly uses is in fact quite rare in these cases. The closest equivalent of *said*, which is *řekl/řekla*, is used dominantly (35%). It is interesting to note, that in some cases the reporting verbs used as equivalents do not correspond to the semantic meaning of the original, sometimes amplifying (*said feebly − hlesl chabě*) or even shifting it (*said nervously − stěžovala si nervózně*).

Keywords: Corpus/Computer linguistics, Contrastive Linguistics, Translation studies

References

Corness, Patrick. 2010. "Shifts in Czech translations of the reporting verb said in English fiction." In F. Čermák, P. Corness & A. Klégr (Eds.), *InterCorp: Exploring a Multilingual Corpus,* edited by František Čermák, Patrick Corness and Aleš Klégr, 159-176. Praha: Nakladatelství Lidové noviny/Ústav Českého národního korpusu.

Fárová, Lenka. Forthcoming. "Uvozovací slovesa v překladech třech různých jazyků." In A. Čermáková, L. Chlumská & M. Malá (Eds.), *Jazykové paralely*. Praha: Nakladatelství Lidové noviny/Ústav Českého národního korpusu.

Levý, Jiří. 1998. *Umění překladu*. Praha: Ivo Železný.

Paralelní korpus InterCorp, verze 8. Ústav českého národního korpusu FF UK. Dostupný na http://www.korpus.cz/intercorp

New Roles and Architecture for Gender:
Evidence from Semitic, Berber, and Romance

Abdelkader Fassi Fehri

Mohammed V University, Rabat, Morocco
`abdelkaderfassifehri@gmail.com`

Since at least Brugmann (1897) for Indo-European, or Brockelmann (1910) for Semitic, Gen(der) has been shown to express diverse multiple meanings other than sex (or animacy), including *individuation*, *collectivity, abstractness, quantity, size*. It is not solely 'arbitrary'/formal, or 'redundant'. Further meanings and structures (including discursive functions) have been identified, including qualitative *evaluation*, *perspectivization*, and speech act role modification or *performativity,* to name a few.

This polysemy (and polyfunctionality) and the differentiated structural multitude are not expected in the current reductive typology/theory of Gen, which sees it as essentially (a) a *nominal class marking* device, (b) semantically *sex-based*, and (c) syntactically *reflected in gender agreement* through sex/animate controllers (Corbett 1991; Kibort & Corbett 2008; Dahl 2000; Kihm 2005), despite its well-acknowledged complexity. We propose instead that only an *integrative* and *constructional* view of Gen is appropriate for taking into account its polyfunctional nature, and providing room for more 'unorthodox' syntax. Furthermore, the fact that gender agreement patterns and controllers are syntactically diverse and non-uniform is compatible with such a view.

Assuming a Minimalist Distributed Morphology model of Grammar a la Chomsky (1995) and Halle & Marantz (1993), we depart from the view that Gen is confined to a dedicated syntactic position (GenP in Picallo (2008), or nP in Kihm (2005) or Kramer (2014)), and interpreted basically as male/female (Percus 2010). Rather, Gen is *distributed* over various layers of the DP or CP architecture, in the spirit of Steriopolo & Wiltschko (2010), Déchaîne (2014), Pesetsky (2013), or Ritter (1993), or in SAP (making use of Speas & Tenny's 2003, or Hill's 2014 cartography).

Distinct layers of Gen are then postulated and motivated: (a) *conceptual* Gen; (b) *n* Gen; (c) *Cl*(assifier) Gen; (d) *Num*(ber) Gen; (e) *DP/CP* Gen, or (f) *Speaker* Gen. Most of these distinct positions give sources to unorthodox meanings. Syntactically relevant interpretable Gen features include ± fem, ± indiv, ± group, ± small/big, ± bad/good, ± endearing, etc.

Since Gen is shown not to be limited to 'referential-tracking' (Heath 1983), or perspectivization of referents, extending to expressives, perspective shifts, or illocutionary/ speech acts functions, a unique semantics/pragmatics based on sex appears to be highly inappropriate. Our polysemic/polyfunctional hypothesis provides a more appropriate integrative treatment. Building on contributions by Jurafsky (1996), Dressler & Barbaresi (1994), Körtvélyessy (2014), and Grandi & Körtvélyessy (2015) with regard to the semantic treatment of evaluatives, we propose that Gen can be (distributively) *hyperonymic*, embracing the diverse and structurally organized and related meanings or functions found cross-linguistically, the sex (or animate) meaning being only a *hyponym*.

The following cross-linguistic data illustrate partially the wide range of meaning/function diversity a Gen typology/theory should be able account for ('fem' marked by *–at*, *-t* or *–a*):

Arabic
(1) (a) naḥl 'bee'→ naḥl-*at* 'bee-unit', "a bee" (*singulative*)
   (b) xayyaaṭ "tailor" → xayyaṭ-*a* 'tailor-fem', "group of tailors" (*plurative*)

(c) raaḥil "traveller" → raḥḥaal-*at* 'traveller + augment+ fem'
   i. "an extremely big traveller" (*intensive*);
   ii. "a famous big traveller" (*evaluative*)
(2) yaa ʔab-*at*-i!
   Oh father-fem-mine
   Oh my beloved father! (*performative*)
   Hebrew
(3) (a) neqam-*a* "vengeance" (*abstract*);
   (b) oni → oniyy-*a* "a ship" (*singulative*);
   (c) daag "a fish" → dagg-*a* "a collection of fish" (*plurative*)
   Berber
(4) afus "hand" → t-afus-*t* "small hand" (*diminutive*)
(5) ṭamšmaš-*t* "a single apricot" (*individuative*)
(6) argaz "man" → t-argaz-*t* «mannish female» (*endearment* or *contempt*)
   Romance
 (7) (a) kortell-o → kortell-*a* 'large kitchen knife' (*augmentative*)
   (b) barc-o → barc-a 'small ship' (*diminutive*)
   (c) aceitun-o 'olive tree' → aceitun-a 'olive-unit' (*singulative*)

Keywords: polysemous gender; distributed; singulative; plurative; performative

References
Brockelmann, Karl. 1910. *Précis de linguistlque sémitique*. Paris: Geuthner.
Brugmann, Karl. 1897. The Nature and Origin of the Noun Genders in the Indo-European Languages. Lecture delivered at Princeton Univ.
Corbett, Greville. 1991. *Gender.* Cambridge: CUP.
Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: The MIT Press.
Dahl, Osten. 2000. Elementary Gender distinctions. In Barbara Unterbeck et al eds. *Gender in grammar and cognition*, 577-593.
Hachimi, Atiqa. 2007. Gender. In Kees Versteegh ed. *Encyclopedia of Arabic Languages and Linguistics,* Vol. 1, 155-164. Leiden: Brill.
Fassi Fehri, Abelkader. 2015. Semantic Gender Diversity and Its Architecture in the Grammar. To appear in *Brill's Journal of Afroasiatic Languages and Linguistics* 8.1.
Fassi Fehri, Abdelkader. (to appear). New roles for Gender: Evidence from Arabic, Semitic, Berber, and Romance. In Laura Bailey & Michelle Sheehan eds. *Order and Structure in Syntax*. Language Science Press.
Halle, Morris & Alec Marantz, A. 1993. Distributed morphology and the pieces of inflection. In Kenneth Hale & Jay Keyser eds. *The View from Building 20,* 111-176. Cambridge: The MIT Press.
Kahane, Henry & Renée Kahane. 1948-9. The augmentative feminine in the Romance Languages. *Romance Philology* 2, 135-75.
Kihm, Alain. 2005. Noun Class, Gender and the Lexicon-syntax-morphology Interfaces: A Comparative Study of Niger-Congo and Romance Languages. In Guglielmo Cinque & Richard Kayne eds. *The Handbook for Comparative Syntax*, 459-512. Oxford: OUP.
Körtvélyessy, Livia. 2014. Evaluative Derivation. In Rochelle Lieber & Pavol Štekauer eds. *The Oxford Handbook of Derivational Morphology*, 296-316. Oxford: OUP.
Steriopolo, Olga & Martino Wiltschko. 2010. Distributed Gender Hypothesis. In Gerhild Zybatow et al. eds. *Formal Studies in Slavic Linguistics*. Linguistik International 25, 155-172. Frankfurt: Peter Lang.
Unterbeck, Barbara. 2000. Gender: New light on an old category. In Barbara Unterbeck et al eds. *Gender in grammar and cognition*, xv–xxv. Berlin: Mouton de Gruyter.

Locatives, Part and Whole in Uralic

Ludovico Franco[a], Giulia Bellucci[b], Lena Dal Pozzo[b,c], Rita Manzini[b]

[a]Universidade Nova de Lisboa, [b]Università di Firenze, [c]PUC-Rio de Janeiro
franco.ludovico@gmail.com

Spatial reference has always been debated in linguistics. Many authors have developed models which aim to account how spatial expressions are syntactically encoded in natural languages (Koopman 2000, Svenonius 2010, Den Dikken 2010, Pantcheva 2011, Lestrade et al. 2011, among many others). Prima facie natural languages seem to display a lot of variation in this respect, employing specialized case-endings (Finnish, Hungarian, Lezgian, etc.), spatial adpositions (Italian), or both (Pashto). This fact is not surprising if we take case-inflections to be the morphological counterpart of adpositions (Fillmore 1968). We focus on inflected locative adpositions in Uralic languages. Building on primary data from Finnish (1) and on a fine-grained cross-linguistic survey taking into account 16 Uralic varieties we show that a two-tiered structure as that of the tree in Figure (1) can capture the cross-linguistic facts.

(1)   Auto   kadun   keskellä.
        Car-NOM   street-GEN   centre-ADE
        ´The car in the middle of the street´   *Finnish*

What are labeled adpositions in Finnish (and elsewhere in Uralic) are best characterized as Axial-Parts (Svenonius 2006). In a Figure/Ground configuration (Talmy 1991, 2000) involving spatial Ps the Ground-complement can be assumed as the possessor of the axis (the AxPart P) taken to evaluate the location of the Figure, introduced by means of the pP node in (1b). Axial Parts are nominal in nature in Uralic and their projection is the 'external argument' of the genitive *–n* in (1b). Many languages beyond the Uralic family treat regional constructions in the same manner as dependent possessed nominals (e.g. Inuktitut and Uzbeki, Johns & Thurgood 2011). Thus, the relation between AxPart and the complement of the genitive predicate in (1b) is a kind of 'Part-Whole' relationship (Fábregas 2007), notated here as (⊆), following Manzini & Franco (2016) who have treated (genitive/dative) case morphemes as (elementary) predicates introducing a relation between the argument they select and another argument (contra the characterization of Asbury 2010, who assumes that such items are D-like elements). We aim at addressing the proximity of dative/genitive and locative specifications, corresponding to frequent syncretic lexicalizations of dative and locative. Possession/Part-Whole is often identified with a location in the literature, cf. in particular Freeze (1992), Lyons (1967). Recently, Boneh & Sichel (2010) take the part-whole relation to be the conceptual core of partitives and of inalienable possession - however they factor out alienable possession, treated as a locative relation, since in the language they consider (Palestinian Arabic), material possession is lexicalized by a locative preposition.
Here we suggest that the *–l/-s* locative morphemes of Finnish (Ylikoski 2011) could be analysed as locative specializations of the fundamental oblique (⊆). We construe locatives as a specialization of the part-whole relation, roughly 'x included by y, y a location', where different locatives introduce different restrictions on inclusion. What the previous discussion implies is that there is a parallelism between the syntactic configuration/relationship involving

the Axial Part and the Ground and the Part-Whole relation. This idea is confirmed by the fact that natural languages consistently employ the same strategy to lexically encode a Part-Whole and an Axial Part-Ground relation (Franco et al. in preparation). Uralic data support this view.
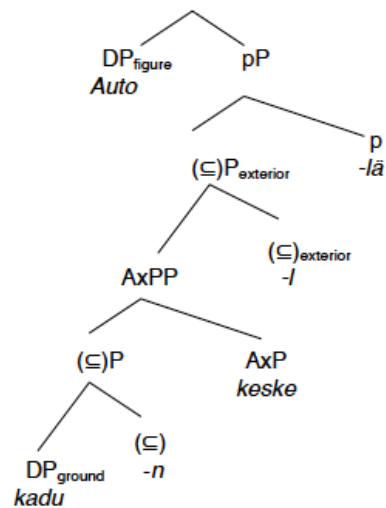
DP_{figure} *Auto* — pP

$(\subseteq)P_{exterior}$ — p *-lä*

AxPP — $(\subseteq)_{exterior}$ *-l*

$(\subseteq)P$ — AxP *keske*

DP_{ground} *kadu* — $(\subseteq)$ *-n*

Figure (1)

Keywords: Locatives, Part-Whole, Axial Parts, Oblique Case, Uralic.

References:

Asbury, Anna. 2008. The Morphosyntax of Case and Adpositions. Ph.D. thesis, Utrecht University.

Den Dikken, Marcel, 2010. "On the functional structure of locative and directional PPs", in Guglielmo Cinque & Luigi Rizzi (eds.), Mapping Spatial PPs, The Cartography of Syntactic Structures, Vol. 6, New York: Oxford University Press, 74–126.

Fabregas, Antonio. 2007. " (Axial) Part and Wholes". In *Nordlyd* 34(2): 1-32.

Fillmore, Charles J. 1968. "The Case for Case." In *Universals in Linguistic Theory*. Emmon Bach and Robert T. Harms (eds). New York: Holt, Rinehart, and Winston, 1-88.

Lestrade Sander, Kees de Schepper & Joost Zwarts. 2011. "The division of labor between adpositions and case within complex PPs". In *STUF* 64 (3): 256–274.

Manzini, M. Rita and Ludovico Franco. 2016. "Goal and DOM Datives". In *Natural Language and Linguistic Theory* 34(1): 197-240.

Pantcheva, Marina. 2011. Decomposing Path: The Nanosyntax of Directional Expressions. PhD Thesis, University of Tromsø.

Svenonius, Peter. 2006. "The emergence of Axial Parts". *Nordlyd* 33(1): 49-77.

Talmy, Leonard. 2000. *Towards a Cognitive Semantics*. Cambridge, MA: MIT Press.

Piotrowski's Law and Four Cases in the History of Polish

Rafał L. Górski and Maciej Eder

Institute of Polish Language, Polish Academy of Sciences, Cracow, Poland
{rafal.gorski;maciej.eder}@ijp-pan.krakow.pl

Raijmund G. Piotrowski (1974, cf. Altmann 1983) suggested that language change is described by a formula which was used in other branches of science, chiefly in biology, as a model of growth processes. The aim of this paper is to confront Piotrowski law with empirical data gathered from a diachronic corpus of Polish. The corpus contains ca 9 million running words, spanning from 1380 to 1774. In a commonly accepted periodisation, around 1546 commences the Middle Polish period, which lasts until mid 18th century. Thus the corpus covers more than this epoch. It is rather opportunistic, consisting chiefly of belles-lettres, with a handful of sermons, registers of rural community courts as well as learned texts.

Of the changes to be examined three are examples of epenthesis: a change of *na- > naj-*, a prefix which is a marker of superlative, and two isolated epentheses: [s] in *wszytko > wszystko* 'all'; [d] in *barzo > bardzo* 'very', and a change *więtszy > większy* 'bigger'.

The corpus was divided into time brackets. We experimented with different spans of these brackets – between 20 and 50 years, yet they were all shifted by 10 years, e.g. 1550-1570, 1560-1580 ... 1740-1760, 1750-1770 or 1550-1600, 1560-1610 etc. This procedure can be seen as a kind of smoothing, however its motivation is twofold. On the one hand, the time-span should be wide enough so as to guarantee a balanced (or rather varied) sample which is cumulated as a data point. On the other hand, in order to assure feasible analysis the number of data points should be as high as possible. Yet, if each data point represents a longer time-span, than outermost texts within it are much more distant than two texts in neighbouring stretches. The proposed procedure assures both a higher number of data-points and rather varied group of texts which represent a data point. However, what's most important is that we diminish an effect of a Procrustean bed that is cutting the data into arbitrary slices.

Of these four examples two are described with a Piotrowskian curve with a reasonable fit. The evolution of *wszytko* doesn't even slightly resemble the curve in question, although we observe a shift from a rather limited amount of the new forms up to 0,7% at the end of the examined period. These four cases should be confronted with the elision of [l] in *albo* which was an unsuccessful innovation. The share of the innovative form raised rapidly to 50%, oscillated for some 60 years between 50% and 27%, and again fell to almost 0% in our corpus. The archaic form is the only accepted one in modern Polish.

Our paper supports the observation that the law named after its discoverer is a strong tendency with a considerable number of exceptions, rather than a linguistic law in a strict sense.

References

Altmann, Gabriel. 1983. "Das Piotrowski-Gesetz und seine Verallgemeinerungen". In *Exakte Sprachwandelforschung* Karl-Heinz Best and Jürgen Kohlhase, 59-90. Göttingen: Herodot.

Klemensiewicz, Zenon, Tadeusz Lehr-Spławiński, Stanisław Urbańczyk. 1965. *Gramatyka historyczna języka polskiego*. Warszawa: Państwowe Wydawnictwo Naukowe.

Piotrowskaja, A. A. and Raijmund G. Piotrowski. 1974. "Matematičeskie modeli diachronii i tekstoobrazovanija". In: *Statistica reči i avtomatičeskij analiz teksta*, 361-400. Leningrad: Nauka.

Keywords: Diachronic change, Piotrowski's Law, Quantitative linguistics
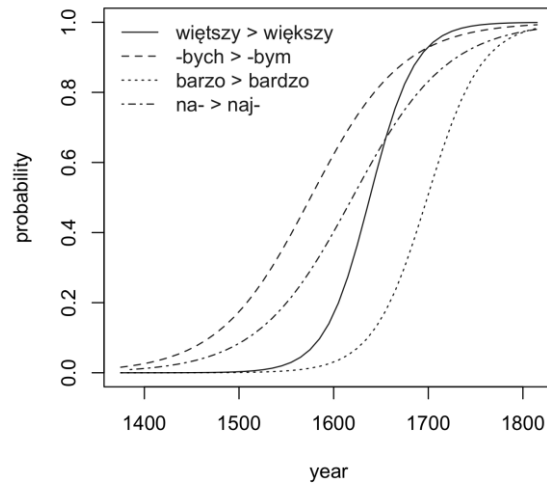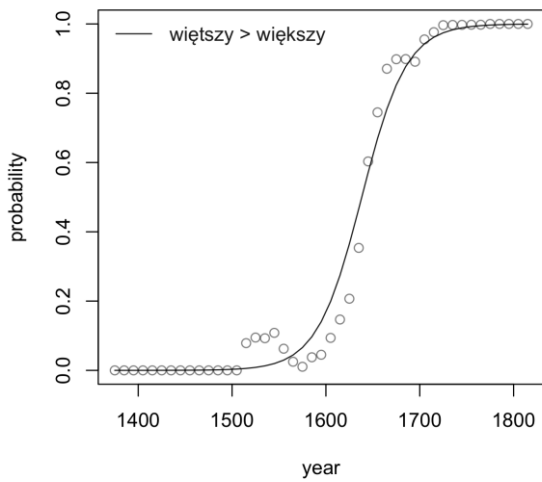
Resumptive Pronouns in Polish *co* Relative Clauses

Wojciech Guz

John Paul II Catholic University of Lublin, Poland
`wguz@o2.pl`

This paper discusses the problem of resumption in Polish object relative clauses introduced by the relative marker *co*, as in (1):

(1) gdzie ta mucha co ją zabiłem?
    where this fly$_{NOM}$ CO she$_{ACC}$ I killed
    'Where is that fly (that) I killed?'

In the literature dealing with resumptive pronouns, different accounts vary significantly as to the basic question of when the resumptive pronoun is to be expected. Some say it is always obligatory in object clauses (Giejgo 1981; Kardela 1986; Bondaruk 1995; Mykowiecka 2001), others seem to make the same assumption without stating it explicitly (Gołąb and Friedman 1972; Topolińska, Grochowski, and Karolak 1984, 345), still others allow for reservations to be made to the presence of the resumptive (Fisiak, Lipińska-Grzegorek, and Zabrocki 1978; Broihier 1995; Szczegielniak 2004; Lavine 2003). Besides the contrasting claims put forward by authors, virtually all previous analyses have been based on introspection only.

The present study addresses the use and non-use of resumptive pronouns (accusative and non-accusative) by means of qualitative and quantitative analysis of authentic conversational spoken Polish – a language variety in which *co* relatives typically occur. Additionally, introspection is utilized to reinforce and complement corpus data when we consider the relative acceptability or felicitousness of the presence or absence of resumptives. The focus of the analysis is on discovering and describing patterns of usage.

The corpus examples were retrieved from a collection of 1.6 milion words of conversational spoken Polish by an exhaustive search of all occurrences of the word *co*. Each occurrence was manually inspected and relevant tokens of the relative marker use of *co* were collected. The sample consists of 204 object relative clauses, which were analysed for factors relevant in resumption.

As is shown, the relatives are used in two broad configurations – unmarked (most frequent (81%), with null resumptives and inanimate referents) and marked (with overt resumptives and human referents). Both scenarios are linked to distinct strategies of case-recovery. The presence of the pronoun itself is one such strategy. In contrast, the omission of the pronoun is often (74%) accompanied by case-matching effects between the head and the trace which facilitate the omission. It appears that *co* relative clauses display a case-matching effect, whereby utterances in which the case form of the head matches that of the trace (*te* and *tą* in (2)) sound better – better integrated – than utterances with non-matching forms (*ta* in (2)). In relatives where the cases do not match, a resumptive may be used to resolve the awkwardness, as in (3).

2) te   /?ta   / tą   co   miałam   na sylwestra
   these $_{NOM/ACC}$ /this$_{NOM F}$/ this$_{ACC F}$ CO   I had [t$_{ACC}$]   on New Year's Eve
   'the ones / the one (that) I had on for the New Year's Eve party'

3) ta   co   ją   miałam   na sylwestra
   this$_{NOM F}$ CO   she$_{ACC}$ I had [t$_{ACC}$]   on New Year's Eve
   'the ones / the one (that) I had on for the New Year's Eve party'

Another typical property of *co* relatives is their preference for encoding definiteness of referents, as opposed to the readiness of *który* clauses to signal indefiniteness. This is evidenced by the frequent co-occurrence of *co* clauses with head-internal demonstratives (85%), as in (1). Interestingly, these head-internal demonstratives can also render resumptive pronouns unnecessary, thus constituting another factor relevant in resumption.

References

Bondaruk, Anna. 1995. "Resumptive Pronouns in English and Polish". In *Licensing in Syntax and Phonology. PASE Studies and Monographs*, vol. 1, edited by Edmund Gussmann, 27–55. Lublin: Folium.

Broihier, Kevin. 1995. *Optimality-Theoretic Rankings with Tied Constraints. Slavic Relatives, Resumptive Pronouns and Learnability*. Ph.D. dissertation, MIT.

Fisiak, Jacek, Maria Lipińska-Grzegorek and Tadeusz Zabrocki. 1978. *An Introductory English-Polish Contrastive Grammar*. Warszawa: PWN.

Giejgo, Joanna. 1981. *Movement Rules in Polish Syntax*. Ph.D. diss., University College London.

Gołąb, Zbigniew and Victor A. Friedman. 1972. "The Relative Clause in Slavic". In *The Chicago Which Hunt: Papers from the Relative Clause Festival*, edited by Paul M. Peranteau, Judith N. Levi, Gloria C. Phares, 30–46. Chicago: Chicago Linguistic Society.

Kardela, Henryk. 1986. *Wh-Movement in English and Polish. Theoretical Implications.* Lublin: UMCS.

Lavine, James E. 2003. "Resumption in Slavic. Phases, Cyclicity and Case". In *Formal Approaches to Slavic Linguistics*, edited by Wayles Browne, 355–72. Ann Arbour Michigan Slavic Publications.

Mykowiecka, Agnieszka. 2001. "Polish Relatives with the Marker *co*". In *Generative Linguistics in Poland. Proceedings of the GLiP-2 Conference,* edited by Adam Przepiórkowski and Piotr Bański, 149–57. Warszawa: Instytut Podstaw Informatyki PAN.

Szczegielniak, Adam. 2004. *Relativization and Ellipsis*. Ph.D. dissertation, Harvard University.

Topolińska, Zuzanna, Maciej Grochowski and Stanisław Karolak. 1984. *Gramatyka Współczesnego Języka Polskiego. Składnia.* Warszawa: PWN.

Comparing Naive Discriminative Learning, Sublexicon Phonotactics, and Analogical Learning

Matías Guzmán Naranjo and Elena Pyatigorskaya

Leipzig University, Leipzig, Germany
matias.guzman_naranjo@uni-leipzig.de;
elenaln@gmx.de

Introduction. To explain how speakers choose between different diminutive forms in Russian masculine nouns (*-ik*, *-chik*, *-ok*), Gouskova, Newlin-Łukowicz, and Kasyanenko (2015) (from now on as GNK) argue for a model of lexicon/morphology where speakers store sub-lexicons of nouns with a sort of diacritic that indicate the diminutive form they take, and then use some form of phonotactic generalization over those sublexicons that they then use to produce novel forms. At its heart, this is an analogical model of morphology (Bybee 2010), but the implementation is much more complex and theory dependent than simple analogical models.

Objective. We wanted to compare GNK's approach with a more traditional analogical model (implemented with a perceptron), and for reference also compare these two with a Naive Discriminative Learning approach (Arppe et al. 2014).

Methodology. We used the data set provided by GNK in their study, whcih consists of around 1300 masculine diminutive nouns derived with one of the three forms mentioned above. We expanded this list by extracting their frequency from Google ngrams. We then fitted a traditional NDL model using 2- and 3-graphs (sequences of two and three letters) within the nouns, and a simple analogical model using hand picked predictors: last phoneme of the word, position of stress, stressed vowel, last vowel, number of vowels, and length. Finally, we compared both models with GNK's model.

Results. First of all, we found a clear flaw in GNK because they fit and evaluate their multinomial regression model on the same data-set, which means that they are not really making predictions on new data. However, if one directly tests the predictions made by the grammars they generated with the UCLA phonotactics learner, the result is that the grammar (a) is more or less at chance level (the accuracy is no different, or inferior than the no information rate, and kappa = 0.073), (b) makes absolute predictions and completely misses the fact that the alternation is probabilistic (as their own study on nonce words shows). Similarly, the NDL model trained with 2- and 3-graphs performs at chance level both for categorical predictions and probabilistic predictions. Compared to these, the hand picked analogical model performs above chance (kappa = 0.26), and for probabilistic predictions the analogical model outperforms the NDL (lower brier scores, lower mean square errors, and higher correlation coefficients).

Finally, including frequency information reduced the performance of both the NDL and analogical models, which is specially interesting, because it indicates that types are more important for this particular alternation than tokens are (that is, high frequency types are not more relevant for the generalizations than low frequency types).

Conclusion. We conclude that a simple analogical (perceptron-based) model can better capture speakers performance when forming Russian diminutives than the alternative approaches.

Keywords: morphology, analogy, Russian diminutives, alternations

References
Arppe, Antti, Peter Hendrix, Petar Milin, R. Harald Baayen, and Cyrus Shaoul. "Package 'ndl'." (2014).
Bybee, Joan. 2010. *Language, usage and cognition*. Cambridge University Press.
Gouskova, Maria, Luiza Newlin-Łukowicz, and Sofya Kasyanenko. "Selectional restrictions as phonotactics over sublexicons." *Lingua* 167 (2015): 41-81.
Hayes, Bruce and Colin Wilson. "A Maximum Entropy Model of Phonotactics and Phonotactic Learning". *Linguistic Inquiry* 39 (2008): 379-440.

A New Syntactic Analysis of Dutch Nominal Infinitives

Kateřina Havranová

Palacky University, Olomouc, Czech Republic
`havranova@email.com`

This paper deals with Dutch nominalizations, namely with two types of nominal infinitives, and tries to draw parallels between the Dutch and English constructions. Traditionally, four types of constructions are considered to be Dutch nominalizations (GE-nominals, ING-nominals, and bare and determined nominal infinitives) since they all fulfill two basic criteria: Firstly, they inherit the denotation (namely the state of affairs) of the verb they are derived from and, secondly, they inherit the argument structure of that verb if interpreted as process (complex event) nominals.[1]

However, the main focus of this paper are the nominal infinitives (NIs) of two types. The first type are bare nominal infinitives (NI-Bs) (1), the second type are determined nominal infinitives with the definite article *het* (NI-Ds) (1b).

(1)   a *Boeken lezen is interessant.*
         books read is interesting
         'Reading books is interesting.'

        b *Het lezen van boeken is interessant.*
         the read   of books is interesting
         'The reading of books is interesting.'

I demonstrate that although their external syntax is basically the same – they both have the distribution of NP/DPs fulfilling the syntactic functions of subjects, objects, PP-objects or adverbials – their internal structures differ. Both types of nominal infinitives also inherit the argument structure of the verb as well as its denotation, but they denote the action of the verb only as a process (event) and never as a result. Furthermore, I compare their nominal and verbal properties and examine how they behave with respect to different criteria such as the form of an internal object, determiners, pluralization, quantification, modification, etc.

      Dutch nominal infinitives have been studied previously in detail by both traditional and generative linguists (e.g. Hoekstra, 1985; Zubizarreta & Van Haaften, 1988; Looyenga, 1992; Hoekstra, 1999; Schoorlemmer, 2002; Reuland, 2011; Broekhuis, 2012, etc.) but they have always been "notoriously difficult to analyze" (Schoorlemmer, 2002). Although these authors have managed to describe their behaviour extensively, they have not been able to show formally that they are in fact very systematic constructions or how they fit into a broader theoretical linguistic context. I depart from previous approaches in my treatment of nominal infinitives and propose a new analysis using only one syntactic operation that

---

[1] The terms process/complex event and result nominals are used in line with Grimshaw (1990).

combines Categorial Switch, a language particular phenomenon previously described by Panagiotidis & Grohmann (2009), and Merge, which is part of Universal Grammar, into a single step. This elegant solution also helps to explain how both types of Dutch nominal infinitives can combine with their objects in two different ways.

Keywords: (Dutch nominalizations, the nominalization process, Dutch nominal infinitives, external distribution, internal syntax)

References

Bresnan, Joan. 1997. "Mixed Categories as Head Sharing Constructions." *Proceedings of the LFG97 Conference,* ed. M. Butt and T. Holloway King. Stanford, Calif.: CSLI Publications.

Broekhuis, Hans, and Marcel den Dikken. 2012. *Syntax of Dutch*. Amsterdam: Amsterdam University Press.

Emonds, Joseph. 2014. "Gerunds vs. Infinitives in English: Not Meaning but Form." *From Theory to Practice 2013.* ed. G. J. Bell, K. Nemčokova and B. Wojcik. Zlin: Tomas Bata University Press.

Grimshaw, Jane. 1990. *Argument Structure*. Cambridge, Mass.: MIT Press.

Hoekstra, Teun, and Pim Wehrmann. 1985. "De Nominale Infinitief." *GLOT* 8/3: 257-274.

Hoekstra, Teun. 1999. "Parallels between Nominal and Verbal Projections." In *Specifiers: Minimalist Approaches*, ed. D. Adger, S. Pintzuk, B. Plunkett, and G. Tsoulas, 163-187. Oxford: Oxford University Press.

Looyenga, Sietze. 1992. "A Syntactic Analysis of Dutch Nominal Infinitives." In *Linguistics in the Netherlands*, ed. R. Bok-Bennema and R. van Hout, 173–184.: John Benjamins Publishing Company.

Panagiotidis, Phoevos, and Kleanthes K. Grohmann. 2009. "Mixed Projections: Categorial Switches and Prolific Domains." *Linguistic Analysis* 35: 141-161.

Reuland, Eric. 2011. "What's Nominal in Nominalizations." *Lingua* 121/7: 1283-1296.

Schoorlemmer, Maaike. 2001. Dutch Nominalised Infinitives As Non-Identical Twins. Ms. UiL OTS, Utrecht University.

Zubizarreta, Maria Luisa, and Ton van Haaften. 1988. "English -ing and Dutch -en Nominal Constructions: a case of simultaneous nominal and verbal projections." In *Morphology and Modularity*, ed. M. Everaert, 361-394. Dordrecht: Foris.

Minimal Pronouns

Anders Holmberg[1] and On-Usa Phimsawat[2]

Newcastle/Cambridge[1] and Burapha University[2]

`anders.holmberg@newcastle.ac.uk; onusap@hotmail.com`

Phimsawat (2011) proposes that the null inclusive generic pronoun in Thai has no φ-features.

(1)   *hàak Ø wáicay khɔn   Ø cà   cɔncay ʔeeŋ*   [Thai]
        if   trust person   FUT regret   self
        'If one trusts acquaintances one will regret it later '

This explains (a) why it has inclusive generic reference, and (b) why it's null. No φ-features means unrestricted reference, and that is what inclusive generic reference is: it includes the speaker, the addressee, and other people. It's null because there are no φ-features and no root to spell out. So what is it if it has no φ-features? Just N, a minimal noun? But can there be a categorial feature N (or *n*), when there is no root?

   The Thai null inclusive pronoun can be compared with the Finnish null inclusive pronoun.

(2)   *Tässä voi   Ø istua.*   [Finnish]
        here can.3SG   sit   'One can sit here.'

This pronoun has the φ-features 3SG, shown by the agreement on the finite verb. Biberauer et al (2010) shows that this is proper agreement, not default agreement. This suggests that the null subject has φ-features just because they are needed to assign values to the unvalued φ-features of T, and it can be null because the φ-features are spelled out on T. The Finnish inclusive generic pronoun has another characteristic: it can refer to humans only: (3) can only be about humans. It cannot include for example plants (along with humans).

(3)   Sitä   kasvaa   hyvin jos saa   hyvää hoitoa ja paljon ravintoa. [Finnish]
        EXPL grow.3SG well   if   get.3SG good care and much nutrition
        'One grows well if one gets good care and much nutrition.'

Why the feature [human]? We will explore the idea that it's a default value of N, a minimal root. We propose that there can be no N without either semantic features (a root) or phonetic features (the latter to allow for expletives). Furthermore, there can be no φ-features without N. The minimal φ-feature specification is 3SG. It follows that the null inclusive generic pronoun in Finnish is 3SG and restricted to human reference. The connection between agreement and human reference is confirmed by the observation that the generic construction in Thai is not restricted to human reference. (4) can generalize over humans, animals, and plants.

(4)   *thâa dâayráab khwaamrák khwaamʔawjaysay kôo cá   too   rew*   [Thai]
        if   get   love   care   then FUT grow fast
        'If one gets love and care, one will grow faster.' [plants, animals, and humans]

 The same is true of Japanese, Korean, Mandarin, Sinhalese, Vietnamese, all agreementless languages, while it is restricted to humans in Hebrew, Brazilian Portuguese, Bengali, Assamese, all languages with agreement. This suggests that the inclusive pronoun in the agreementless languages isn't syntactically represented at all. However, the reflexive in (1) indicates that there is a syntactic null generic subject in this Thai sentence. If this can be

further substantiated for all the languages concerned, our initial hypothesis will need to be reconsidered.

Keywords: generic, inclusive, human, agreement

References
Biberauer, Theresa, Anders Holmberg, Ian Roberts and Michelle Sheehan. 2010. *Parametric variation: null subjects in minimalist theory*. Cambridge University Press.
Phimsawat, On-Usa. 2011. The syntax of pro-drop in Thai. PhD dissertation, Newcastle University.

Lexical and Orthographic Distances between Czech, Polish, Russian, and Bulgarian – a Comparative Analysis of the Most Frequent Nouns

Klára Jágrová, Irina Stenger, Roland Marti, and Tania Avgustinova

Saarland University, Saarbrücken, Germany
{kjagrova, avgustinova}@coli.uni-saarland.de
{ira.stenger, rwmslav}@mx.uni-saarland.de

We examine the lexical distances between four selected Slavic languages with special attention to orthography. The underlying assumption is that not only the *share* of cognates but also the *transparency* of orthography may increase the mutual intelligibility of related languages. This study is based on methods of Heeringa et al. (2013) for determining lexical and orthographic distance between related languages in correlation to geographic distance. The latter is, however, beyond the scope of our analysis. We modify their method as follows.

Empirical basis	Heeringa et al.	Our approach
Source of data set	British National Corpus	Frequency lists from the national corpora of Czech, Polish, Russian, Bulgarian
Material	translations of the 100 most frequent English nouns	selection of the 100 most frequent nouns of CZ, PL, RU, BG
Language family	Romance, Germanic, Slavic	Slavic
Slavic languages	Czech, Slovak, Polish, Slovene, Croatian, Bulgarian	Czech, Polish, Russian, Bulgarian

Instead of translating the 100 most frequent nouns from the British National Corpus, which turn out to include instances that are considerably rare in other languages (e.g. *form*, *effect*, *police*), we systematically use original resources only in order to establish a more representative picture of the individual languages.

Methods	Heeringa et al.	Our approach
Translation	in two steps: 1. English → each language 2. each language → other languages of the same group	CZ → PL, RU, BG PL → RU, BG, CZ RU → BG, CZ, PL BG → CZ, PL, RU
Cyrillic to Latin transliteration	web application http://bg.translit.cc/	according to DIN 1460

In both approaches the decision process in case of polisemy of potential cognates is handled similarly: (i) if there are several possible translations, cognates are preferred; (ii) in case of multiple cognates, the orthographically closest is taken; (iii) no *false friends*, i.e. there is at least one overlap in meaning. For example, for the Czech word *oko* (*eye*) belonging to the 100 most frequent Czech nouns and having two possible translations in Russian, *глаз* and *око*, we choose the cognate *око* (arch. *eye*), because *глаз,* which is the 14th most frequent noun in

our Russian list, does not have a Czech cognate. Similar cases are observed in all investigated language pairs.

Distance measures	Heeringa et al.	Our approach[1]
Lexical	number of non-cognates for each combination	
Orthographic	average Levenshtein distance in the cognate pairs	
Geographic	yes	no

While Heeringa et al. find no asymmetries on the lexical level in their test set, our results are lexically asymmetric in all language combinations, e.g. CZ-RU 27% (Czech decoder of Russian stimulus) vs. RU-CZ 21% (Russian decoder of Czech stimulus). Eventually, we got a smaller orthographic distance between BG and RU 13,47% (Cyrillic script) than between CZ and PL 37,91% (Latin script) with further asymmetries depending on the decoding direction for both pairs.

Keywords: receptive multilingualism, Slavic, lexical distance, orthographic distance

References

Fischer, Andrea, Klára Jágrová, Irina Stenger, Tania Avgustinova, Dietrich Klakow, and Roland Marti. 2015. "An Orthography Transformation Experiment with Czech-Polish and Bulgarian-Russian Parallel Word Sets." In *Natural Language Processing and Cognitive Science 2015 Proceedings*, edited by Bernadette Sharp, Wiesław Lubaszewski, and Rodolfo Delmonte, 115-126. Venezia: Libreria Editrice Cafoscarina.

Heeringa, Wilbert, Jelena Golubovic, Charlotte Gooskens, Anja Schüppert, Femke Swarte, and Stefanie Voigt. 2013. "Lexical and orthographic distances between Germanic, Romance and Slavic languages and their relationship to geographic distance." In *Phonetics in Europe: Perception and Production*, edited by Charlotte Gooskens and Renée van Bezoijen, 99-137. Frankfurt a.M.: Peter Lang.

Sources of lexical material:

The British National Corpus, version 3 (BNC XML Edition). 2007. Distributed by Oxford University Computing Services on behalf of the BNC Consortium.

Czech National Corpus – SYN. Institute of the Czech National Corpus, Praha. Accessed January 01, 2016. http://www.korpus.cz.

Frequency Dictionaries of Bulgarian. 24.01.2016. Accessed April 05, 2016. http://dcl.bas.bg/en/tchestotni-retchnitsi-na-balgarskiya-ezik-2/.

Manually annotated subcorpus of the Polish National Corpus – IPIPAN. 23.01.2016. Accessed March 17, 2016. http://www. http://nkjp.pl.

Ljaševskaja, Ol'ga N. and Sergej A. Šarov. *Novyj Častotnyj Slovar' Russkoj Leksiki*. 2009. Accessed February 28, 2016. http://dict.ruslang.ru/freq.php?

---

[1] We wish to thank Varvara Obolonchykova for her support in the automatic calculation of the orthographic distances.

Subextraction in Dative Clitic and Differential Object Marking Constructions

Ángel L. Jiménez-Fernández

University of Seville

`ajimfer@us.es`

1. Introduction, the problem and our goal. In current research on the structure of DPs in Differential Object Marking and Dative Clitic Constructions, there has been an explosion of proposals suggesting that the preposition *a* present in both accusative and dative objects is not a true P in Spanish, but a morphological marker (Demonte 1995; Cuervo 2003; Ormazabal & Romero 2013; Pineda 2013, a.o.). Adopting the idea that this P does not project into a PP but rather occupies the K(ase) head above DP, in this talk I analyse subextraction out of both accusative and dative prepositional DPs in psych constructions in Spanish Wh-questions, as illustrated in (1).

(1) a. *¿De qué edificio dices que no conoces [a ningún vecino]?*
     'Of what building do you say that you don't know any neighbours?

   b. *¿De qué partido crees que no les ha gustado [a muchos votantes] la nueva normativa?*
     'Of what party do you think many voters didn't like the new regulations?'

However, the Spanish data are far from clear in that by assuming that a P is opaque for extraction (Abels 2003), the prediction follows that Experiencers introduced by P *a* should induce island effects, contrary to facts. To solve this problem, in line with Haegeman et al. (2014), I argue that island effects in objects introduced by *a* in Spanish are multifactorial. I extend their analysis by suggesting that one of the factors mitigating islandhood is the functional character of some prepositions (Riemsdijk 1978), and that the P *a* in dative and accusative DPs is a functional preposition which heads a Kase Phrase, motivated by the case properties of P. Being endowed with an Edge Feature, this KP is a weak phase which allows subextraction.

2. Analysis. I claim that the dative and the accusative are transparent for movement since the preposition *a* is just a case-assigning element, resurrecting the suggestion that this kind of DP projects into a Kase Phrase, a functional projection independently proposed by Loebel (1994), Lyons (1999), Abney (1987), and Lamontagne & Travis (1986), as a category separate from D. By adopting the distinction between weak and strong phases (Bianchi & Chesi 2014; Jiménez-Fernández 2009), I propose that, as prepositional, this KP is a phase, but of a weak nature, whose specifier can be used as an escape hatch for extraction, because K has an Edge Feature. Lexical PPs, by contrast, are strong phases and no Edge Feature is carried by P. This predicts that under minimalist premises subextraction will be available in KP but not in PP. This prediction is borne out, as observed when comparing (1a-b) and (2):

(2) *¿De qué congreso crees que esa propuesta depende [de los organizadores]?*
    'Of what conference do you think that proposal depends on the organisers?'

Keywords: subextraction, dative clitic constructions, Differential Object Marking, Kase Phrase, phases

Selected References

Bianchi, Valentina and Cristiano Chesi. 2014. "Subject Islands, Reconstruction, and the Flow of the Computation." *Linguistic Inquiry* 45 (4): 525–569.

Haegeman, Liliane, Ángel L. Jiménez-Fernández and Andrew Radford. 2014. "Deconstructing the Subject Condition in Terms of Cumulative Constraint Violation." *The Linguistic Review* 31(1): 73–150.

Jiménez-Fernández, Ángel L. 2009. "On the Composite Nature of Subject Islands: A Phase-Based Approach." *SKY Journal of Linguistics* 22: 91–138.

Ormazabal, Javier and Juan Romero. 2013. "Differential Object Marking, Case and Agreement." *Borealis* 2 (2): 221–239.

Pineda, A. 2013. "Double Object Constructions in Spanish (and Catalan) Revisited." In Sergio Baauw, Frank Drijkoningen, Luisa Meroni and Manuela Pinto (eds.), *Romance Languages and Linguistic Theory 2011*, 193–216. Amsterdam: John Benjamins.

Riemsdijk, Henk C. van. 1978. *A Case Study in Syntactic Markedness: The Binding Nature of Prepositional Phrases*. Lisse: The Peter de Ridder Press.

The Hungarian Focus: Presuppositional Content and Exhaustivity Revisited

Tamás Káldi[1], Anna Babarczy[2] and Ágnes Bende-Farkas[3]

[1,3]Research Institute for Linguistics (HAS); [2]Department of Cognitive Science (BME)

kaldi.tamas@nytud.mta.hu; babarczy@cogsci.bme.hu;
agnesbf@gmail.com

The study looks at factors behind the exhaustiveness effects of focus in general and in the Hungarian pre-verbal focus (preVf) in particular. Some theorists argue that the exhaustiveness of preVF is truth-conditional and thus invariably present (e.g. Szabolcsi 1994, É. Kiss 1998, Kenesei 2006). Others, however, claim that the exhaustive interpretation arises through an implicature (e.g. Wedgwood 2005) and is context dependent. Experimental work (e.g. Gerőcs et al. 2014, Onea & Beaver 2011, Kas & Lukács 2013) has supported the latter view showing that the exhaustive interpretation is optional in a variety of behavioural tasks.

One objection to these experiments is that lexically marked focus sentences (*only*-F) were used as a control condition even though *only*-F sentences are believed to have a different presuppositional content than their preVf counterparts. While in 'John ate only the apple' the presupposed content is that 'John ate the apple', and the asserted content is that 'it is exclusively the apple', in 'It is the apple that John ate' the presupposition is that 'John ate something', while the assertion is that what he ate is 'the apple'. These differences may thus make the two sentence types incomparable. A second objection is that since the above studies used behavioural methods, they could only measure the 'end-product' of the process of interpretation but provided no insight into the process itself. We addressed these issues in the present experiments.

First, in an online survey 50 respondents completed preVf and *only*-F sentences with an ending that directly reflects either (a) on the exclusiveness of the object or (b) on the identity of the object. If the above theorising is correct, (a) should be preferred in the case of *only*-F, and (b) in the case of preVf sentences. Our results do not support these predictions. While for *only*-F sentences respondents chose (a) in 97.5% of cases, for preVf sentences the choice of (b) was around chance level suggesting that subjects are not necessarily sensitive to the presuppositional content of the preVf construction. Thus we conclude that *preVf* may be compared to *only*-F as a baseline.

Second, in two visual-world eye-tracking experiments participants listened to a prerecorded preVf or *only*-F sentence and saw four images: an exhaustive scenario, a non-exhaustive image and two distractors. The task was to choose one image in the first experiment (N = 16), and any number of images in the second experiment (N = 30) that best matched the sentence. The results reveal that in the forced choice setup, subjects invariably chose the exhaustive image, but with no limit on the number of choices, both the exhaustive and non-exhaustive images were chosen 34.17% of the time. In the forced choice task, eye-tracking data revealed a gradually increasing preference for the exhaustive picture in both sentence contitions but in the free choice task, this trend was observed only for *only*-F sentences while looking preferences remained at chance level in the preVf condition even if an exhaustive response was given (Figures 1 & 2). This pattern suggests that first, task context plays a crucial role; and second, the non-exhaustive interpretation is not automatically exclud-

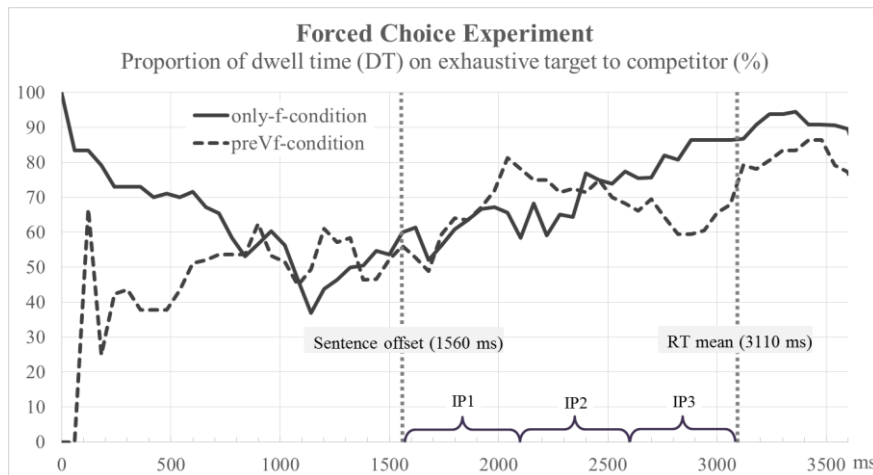ed as the sentence is processed. Thus our results give further support to the pragmatic view of preVf interpretation.

Figure 1

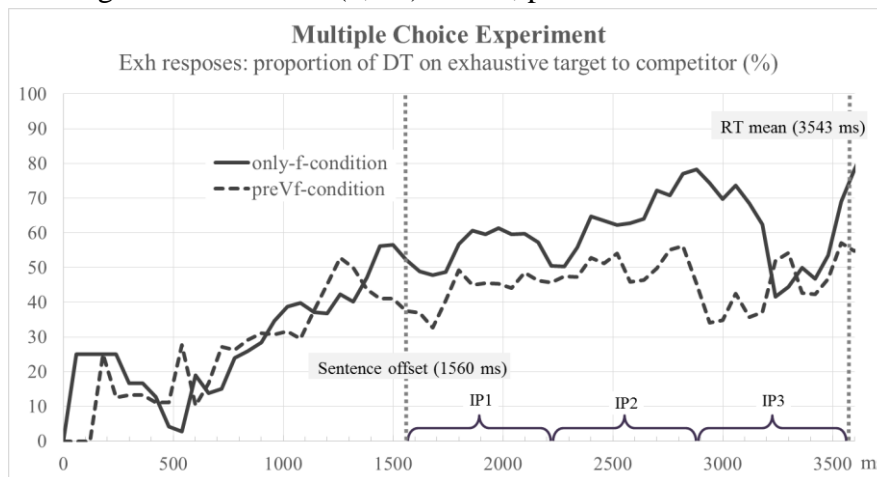Linearly increasing trend over IPs: $F_{(2, 15)} = 4.45$, $p = 0.34$. No main effect of Sent. Type.

Figure 2

Main effect of Sent. Type: $F_{(1, 29)} = 15.20$, $p = .001$. No significant trend in IP.

References

É. Kiss, K. "Identificational Focus versus Information Focus." *Language* 74 (1998): 245 –73.

Gerőcs, Mátyás, Anna Babarczy, and Balázs Surányi. "Exhaustivity in Focus: Experimental Evidence from Hungarian." Olomouc Modern Language Series 3 (2014): 181–94.

Kas, Bence and Ágnes Lukács. "Focus Sensitivity in Hungarian Adults and Children." *Acta Linguistica Hungarica* 60, no. 2 (2013): 217–45.

Kenesei, István. "Focus as Identification." In *The architecture of focus*, edited by Valéria Molnár and Susanne Winkler, 137–68. Berlin - New York: Mouton de Gruyter, 2006.

Onea, Edgar and David Beaver. "Hungarian Focus Is Not Exhausted.". Vol. 19 of *Semantics and Linguistic Theory*, 2014.

Szabolcsi, Anna. "All Quantifiers Are Not Equal: The Case of Focus." 5th Symposium on Logic and Language. Special issue of *Acta Linguistica Hungarica* 42 (1994): 171–87.

Wedgwood, Daniel. *Shifting the Focus. From Static Structures to the Dynamics of Interpretation*. Amsterdam: Elsevier, 2005.

Information Status: An Experimental Study at the Syntax-Semantics Interface

Jiri Kaspar

University College London, Great Britain
`jiri.kaspar.10@ucl.ac.uk`

Introduction. The categorial distinction between 'given' and 'new' is frequently made in the literature on information structure. While the notions of 'givenness' and/or 'newness' have been extensively debated (e.g., Schwarzschild 1999; Kučerová 2007; Šimík and Wierzba 2015), their relation to the more general notion of 'information status' has received less attention (e.g., Prince 1981; Nissim *et al.* 2004; Riester 2008). The present paper reports the results of two online experimental studies on the syntax-semantics interface, which together show that not all information can be classified as exclusively 'given' or 'new'.

Methodology. Experiment I (n=45) assumed a one-way design with three levels of independent variable. The phenomenon studied was the sensitivity of the Czech particle *že* in embedded *wh*-questions to the level of givenness of the proposition expressed by the answer to the question. Each test item consisted of a short story followed by a lead-in question and two sentences. The stories had three versions. Version I (see (1a)) forced the informant to interpret the embedded clause as a request for repetition. Version II (see (1b)) and Version III (see (1c)) forced the informant to interpret the embedded clause as a request for new information. The labels given to the resulting three conditions were 'Given', 'Implied' and 'New', respectively. The sentences that followed took the form of audio recordings and presented a minimal pair consisting of a particular *wh*-question with *že* and a corresponding *wh*-question without *že* (see (2)). The elicitation method used in the experiment was Forced Choice. Experiment II (n=70) was a follow-up study testing the phenomenon in matrix *wh*-questions for Implied and New conditions.

(1) One day, Peter talked to Martha about the purchase of her new car. Peter knew that Martha bought a new car, but, because she had been in a difficult financial situation for some time, he did not know where she got the money to buy it.

    (a) During their chat, Martha mentioned that she had to borrow the money, and then she said who lent it to her. When she was saying who it was, an ambulance was passing by, and Peter heard only '… lent me the money for my new car'. Peter was interested in knowing who lent Martha the money, so he asked her about it.

    (b) During their chat, Martha mentioned that she had to borrow the money, but she did not say who lent it to her. Peter was interested in knowing who it was, so he asked her about it.

    (c) Peter was convinced that somebody lent money to Martha, and, since he was interested in knowing who it was, he asked her about it.

(2) Petr chtěl   vědět, kdo (že) Martě   půjčil peníze   na její nové auto.
Peter wanted know who že   Martha$_{DAT}$ lent   money$_{ACC}$ for her new car
'Peter wanted to know who lent Martha money for her new car.'

Results. The statistical method used to analyse the data was a version of Generalised Linear Mixed-effects Model. In Experiment I, there was a highly significant difference ($p<.001$) between Given and Implied/New. Interestingly, there was no significant difference ($p>.05$) between Implied and New (see Figure 1). In Experiment II, there was a highly significant difference ($p<.001$) between Implied and New (see Figure 2). (Note: The higher the value on the vertical axis, the higher the preference for *že* in the relevant condition (e.g., 20 = 'an average of 20% of all trials in the relevant condition').)

Conclusion. The results of Experiment I are compatible with the 'standard' bi-categorial classification system (i.e., [given – new]). The results of Experiement II are compatible with a

classification system that makes either sub-categorial distinctions (i.e., [given – [new [implied – brand new]]]) or further categorial distinctions (i.e., [given – implied – new]). The results suggest that the representation of discourse with respect to 'speaker knowledge' needs to be more granular than usually assumed in the realm of information structure.

Keywords: syntax-semantics interface; information status; givenness; common ground
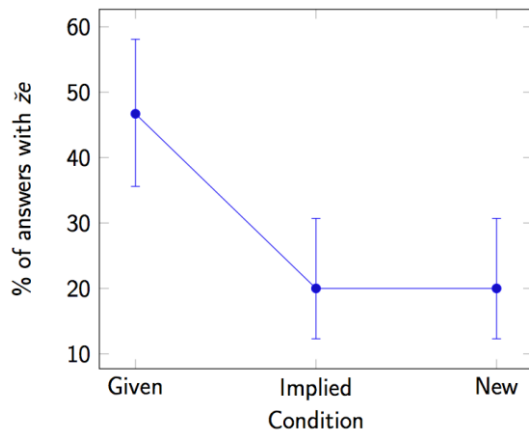
Figure 1 – Estimated means, including confidence intervals, for Experiment I.
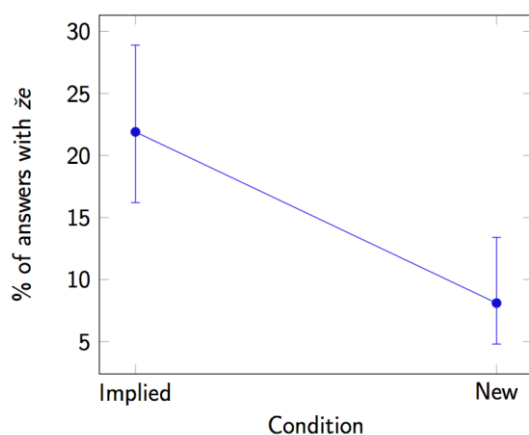
Figure 2 – Estimated means, including confidence intervals, for Experiment II.

References

Kučerová, Ivona. 2007. "The Syntax of Givenness." PhD Thesis. Boston: Massachusetts Institute of Technology.

Nissim, Malvina, Shipra Dingare, Jean Carletta, and Mark Steedman. 2004. "An Annotation Scheme for Information Status in Dialogue." In *Proceedings of the 4th Conference on Language Resources and Evaluation (LREC2004)*. Lisbon.

Riester, Arndt. 2008. "A Semantic Explication of Information Status and the Underspecification of the Recipients' Knowledge." Manuscript. Universität Stuttgart.

Schwarzschild, Roger. 1999. "Givenness, AvoidF and other constraints on the placement of accent. " *Natural Language Semantics* 7 (2): 141–77.

Šimík, Radek and Marta Wierzba. 2015. "The role of givenness, presupposition, and prosody in Czech word order: An experimental study. " *Semantics and Pragmatics* 8: 1–103.

Prince, Ellen F. 1981. "Toward a taxonomy of given-new information. " In *Radical Pragmatics*, edited by Peter Cole. New York: The Academic Press.

Counterscopal Morphology

Paul Kiparsky

Stanford University, Stanford, CA, USA
`kiparsky@stanford.edu`

The Mirror Principle (Baker 1985) stipulates that morpheme order and the constituent structure of words reflect semantic scope. The Mirror Principle can be violated when morphotactic constraints impose counterscopal affix orders and constituency. In this talk I show that such mismatches correlate with particular types of exceptional phonological and allomorphic behavior, and propose an analysis of them that explains this correlation between semantics, morphology, and phonology, as well as the Mirror Principle itself. The supporting data comes from inflection and derivation in morphologically rich languages.

I assume a generative lexicalist morphology, although the arguments could also be adapted to realizational frameworks such as Distributed Morphology. The key assumption is that morphological operations are cyclically interleaved with the processes that assign them a semantic and phonological interpretation. Thus a morphological combination (such as affixation and compounding) undergoes lexical phonology and semantics before the next morphological operation. This has the conceptual advantage of unifying the Mirror Principle with the cyclicity of rule application on the P-side. It also derives the basic morphological locality and inward sensitivity constraints (Carstairs 1987), and automatically excludes lookahead allomorph selection. And it correctly predicts that phonological allomorph selection depends only on the cyclically derived phonological form of their bases— not on the underlying form, or on the output form.

The mutual scope of derivational affixes can be DISTINCTIVE (the causative of a desiderative is distinct from the desiderative of a causative), while the mutual scope of inflectional affixes is PREDICTABLE: case invariably scopes over possessors, and possessors over number, similarly mood > tense > aspect, etc. Mismatches with morphological order and constituent structure occur with both types of scope relations (see (1b), (2b)). However, the mismatches show very different syndromes of correlated phonological and morphological anomalies, which diagnose distinct morphological structures.

Mismatches involving predictable scope result from affix bundling ("co-affixation", "simulfixation"): the counter-scopally ordered affixes are added in one step, viz. [Stem [Affix$_1$ Affix$_2$]]. Evidence for this structure comes from anticyclicity in phonology (no cycle on Stem+Affix$_1$, cycle on Affix$_1$+Affix$_2$), from bidirectional dependencies in morphology (Affix$_1$ can depend on Affix$_2$ and vice versa), and from level-ordering paradoxes and bracketing paradoxes. The bundled affixes remain distinct morphemes but form a single morphotactic unit with the distributional properties of a portmanteau morpheme. I provide examples from Hungarian (see (3)), Finnish, Tundra Nenets, Upper Sorbian, and English.

Mismatches involving reversal of distinctive scope, on the other hand, cannot have this structure, since the semantic interpretation is not recoverable from an affix bundle. In such cases the morphotactics and semantic interpretation jointly force a derivation in which the affixes are inserted and interpreted in the derivational order that reflects their scope, but

placed in the sequence dictated by morphotactic constraints. These force affixes to be inserted below the previously introduced affixes that they scope over (Kiparsky 1982, cf. the morphological head operations of Aronoff and Richards's notion of syntactic "tucking in"). This is confirmed by the phonological and morphological data. Phonological evidence comes from cases where Root + Affix$_1$ undergoes phonological processes before a scopally higher Affix$_2$ splits them ("endocyclicity", Hyman and Orgun 2005), and from outwardly-sensitive allomorphy selection. Examples will be cited from Karimojong vowel harmony (Lesley-Neumann 2007), Sanskrit prefix-suffix interactions, Enets (Yenisei-Samoyed), and Modern Greek.

(1)   a. ci-kīr -ṣ   -ay -a -ti   ≠   ci-kār -ay -iṣ -a -ti
        make -Desid -Caus -Pres -3Sg   make -Caus -Desid -Pres -3Sg
        'causes to want to make'   'wants to cause to make'   (Sanskrit)

   b. [[[-lil] its] il-]   [[[-tákás] -its] il-]   *[[[-tákás] -il] i:ts-]
        cry Caus Applic   stir   Caus Applic   stir   Applic Caus
        '[cause to cry] with]'   'cause [to stir with]'   'cause [to stir with]'   (Chichewa)

(2)   a. köpek -ler -im -de   'in my dogs' (Turkish)
        dog   -Pl -my -Locative

   b. koir -i -ssa- ni   'in my dogs' (Finnish)
        dog -Pl -Inessive -my

(3) Hungarian: affix bundling resolves level-ordering violations

   a. (a) rohan -t   (b) rohan -hat- ott (Törkenczy 2004)
        run   -Past   run   -Modal -Past
        'he ran'   'it is/was possible that he ran' (not 'it was possible that he would run')

   b. Semantics: (((run)Past)Possible)

   c. A level-ordering paradox: Modal -*hat* is a level 2 (word level) ending, because it attaches without a linking vowel to any stem that ends in a single consonant. Past tense -*(V)t(t)* is a level 1 ending, because its initial linking vowel depends on the last consonant of the stem.

   d. Affix bundling analysis: /hat/ $\xrightarrow{\text{level 1}}$ hat-ott $\xrightarrow{\text{level 2}}$ rohan-hat-ott

References

Baker, M. 1985. "The Mirror Principle and Morphosyntactic Explanation." *Linguistic Inquiry* 16: 373-415.

Carstairs, Andrew. 1987. *Allomorphy in Inflexion.* London: Croom Helm.

Hyman, Larry M., and C. Orhan Orgun. 2005. "Endocyclicity and Paradigm Non-Uniformity." In *Morphology and the Web of Grammar*, edited by C. Orhan Orgun and Peter Sells. CSLI Publications.

Kiparsky, Paul. 1982. "Lexical Morphology and Phonology." In *Linguistics in the Morning Calm*, edited by I.-S. Yang. Seoul: Hanshin, 3-91.

Lesley-Neumann, Diane. 2007. *Harmony in Karimojong: Justification for a Stratal Optimality Theory.*

Törkenczy, Miklós. 2004. *The Phonotactics of Hungarian*. Budapest.

Quantitative Analysis of US Presidential Inaugural Addresses

Miroslav Kubát and Radek Čech

University of Ostrava, Ostrava, Czech Republic

`miroslav.kubat@gmail.com; cechradek@gmail.com`

The research aims to investigate several features of inaugural addresses of the presidents of the United States. Although many analyses have been done in this field, most of them are qualitative or concentrated to content analysis (e.g. Lim 2004; Liu 2012). Our approach is strictly quantitative based on the last methods of the contemporary quantitative linguistics (Popescu et al. 2009; Čech et al. 2015, Kubát & Milička 2013). The goal of the paper is to observe the presidential speeches from a viewpoint of stylometry indices and to discover whether political and historical circumstances (wars, financial crisis, ideology, etc.) influence the style of inaugural addresses; analogically to findings presented by Čech (2014).

Specifically, vocabulary richness, thematic concentration and text activity are computed and differences among texts are statistically tested (Čech et al. 2015; Kubát & Milička 2013; Zörnig et al. 2015). Moreover, the thematic concentration also allows extracting so called thematic words, i.e. words which represent main topic(s) of text. The thematic words (TW) can be viewed as an alternative to keywords (Čech et al. 2015). The advantage of TW lies in the fact that those words are based solely on the frequency structure distribution of the text; no reference corpus is needed for the analysis. These three indices were chosen especially due to (a) their high efficiency of automatic text classification (genre analysis, authorship attribution, etc.), (b) their independence on text length and (c) simple linguistic interpretation. The combination of the three methods allows both to investigate the style of the particular presidential speeches in powerful linguistically comprehensive view and to observe the development trends of the specific genre of inaugural addresses during the more than 200 years long history. The corpus comprises inaugural addresses of all US presidents from George Washington to Barack Obama (57 texts in total).

The obtained results are linguistically and historically interpreted and compared with previous works which dealt with presidential speeches (Savoy 2010; Lim 2004; Liu 2012; Tuzzi et al. 2010; Čech 2014).

Keywords: stylometry, presidential speeches, vocabulary richness, thematic concentration, activity of text

References

Čech, Radek. 2014. "Language and ideology: Quantitative thematic analysis of New Year speeches given by Czechoslovak and Czech presidents (1949–2011)." *Quality & Quantity* 48(2): 899–910.

Čech, Radek, Radovan Garabík, and Gabriel Altmann. 2015. "Testing the thematic concentration of text." *Journal of Quantitative Linguistics* 22(3): 215–232.

Kubát, Miroslav, and Jiří Milička. 2013. "Vocabulary Richness Measure in Genres." *Journal of Quantitative Linguistics* 20(4): 339–349.

Lim, Elvin T. 2004. "Five Trends in Presidential Rhetoric: An Analysis of Rhetoric from George Washington to Bill Clinton." *Presidential Studies Quarterly* 32(2): 328–348.

Liu, Fang. 2012. "Genre Analysis of American Presidential Inaugural Speech." *Theory and Practice in Language Studies* 2(11): 2407–2411.

Popescu, Ioan-Iovitz, Gabriel Altmann, Peter Grzybek, Bijapur D. Jayaram, Reinhard Köhler, Viktor Krupa, Ján Mačutek, Regina Pustet, Ludmila Uhlířová, and Matummal N. Vidya. (2009). *Word frequency studies*. Berlin/New York: Mouton de Gruyter.

Savoy, Jacques. 2010. "Lexical Analysis of US Political Speeches." *Journal of Quantitative Linguistics* 17(2): 123–141.

Tuzzi, Arjuna, Ioan-Iovitz Popescu, and Gabriel Altmann. 2010. *Quantitative Analysis of Italian Texts*. Lüdenscheid: RAM.

Zörnig, Peter, Kamil Stachowski, Ioan-Iovitz Popescu, Tayebeh Mosavi Miyangah, Panchanan Mohanty, Emmerich Kelih, Ruina Chen, and Gabriel Altmann. 2015. *Descriptiveness, Activity and Nominality in Formalized Text Sequences*. Lüdenscheid: RAM.

φ-Feature Resolution in a DP Coordination:
A Case Study at the Syntax-Semantics Interface

Ivona Kučerová

McMaster University, Hamilton, ON, Canada
`ivona@alum.mit.edu`

Most of the current literature agrees that the label of a conjoined DP is determined both by semantic and morpho-syntactic features (Farkas¸ and Zec 1995, King and Dalrymple 2004, Heycock and Zamparelli 2005, a.o.), even though strictly morpho-syntactic (e.g., Marušič et al. 2015) and semantic approaches have been proposed as well (e.g., Lasersohn 2013). Less is known about the formal connection between the morpho-syntactic and semantic features. This paper provides novel empirical evidence that the connection at the level of the CI interface is established via PERSON, modeled as [±PARTICIPANT] (Nevins 2007). The formal connection between syntactic PERSON and semantic PARTICIPANT allows for a direct CI association of a PERSON feature with an index. The data comes from DP coordinations with numeral constructions in Slavic, primarily Czech.

The puzzle: Farkas and Zec (1995) observe that the conjoined DP φ-features (as identified by predicate agreement) are identical to φ-features of a pronoun anaphoric to the coordination. The pattern shows that there is a connection between a pronominal φ-feature resolution and φ-feature resolution on coordinated DPs. Czech (but also Polish and Slovenian) numeral constructions with 5 and above (5&up) are a striking exception. Even though their coordination yields obligatory singular agreement (failed agree; Preminger 2009), the corresponding anaphor is in plural, (1).

(1) Pět chlapců   a   pět dívek   se   sešlo/ *sešli   v klubu.
     five boys. GEN and five girls. GEN   REFL met. N.SG/ * M.PL in club
     *Ono/ oni. . .
     it. SG.N /they. M.PL
     'Five boys and five girls got together in the club.'   DEFAULT AGREE

5&UPs are also the only DPs that in coordination optionally trigger closest conjunct agreement (CCA), (2). If, however, the other conjunct is 1st or 2nd person, the agreement must be plural, (3).

(2) Děvčata   a   pět chlapců šli/ šlo/ *šla   do ZOO.
     girls. N.PL and five boys   gone.M.PL / N.SG/ N.PL to ZOO
     'Girls and five boys went to the ZOO.'   CCA OR PLURAL

(3) Já/ty a   pět   chlapců   jsme/jste   šli/ *šlo   do ZOO.
     I/you and five.NOM   boys. GEN.PL AUX.1/2.PL   gone.M.PL/ gone.N.SG to ZOO
     'I/you and five boys went to the ZOO.'   PLURAL

The proposal: I argue that the key to the pattern lies in the observation (i) that 5&UPs are not labeled for φ-features (they trigger only a default agreement; their anaphoric pronouns must agree in semantic features, never in N.SG; they cannot licence secondary predicates; data omitted for reasons of space), and (ii) plural agreement (based on boolean conjunction) arises only if the other conjunct provides a PERSON feature (obligatory for [+PERSON], optional for [−PERSON]). I follow Farkas and Zec (1995) and others in that features of a coordinated DP are computed as a combination of semantic and morpho-syntactic features. The primary semantic feature is PERSON, modeled as [±PARTICIPANT] (Nevins 2007), which allows for a direct CI association with an index (obligatory for [+PERSON]/ [+PARTICIPANT]). Semantic coordination is based on indices associated with individual conjuncts (matching indices ⇒ SG; non-matching ⇒ PL). Semantic plurality is obligatory if at least one of the conjuncts is [+PERSON]. 5&UPs lack a PERSON feature but if they combine with [+PERSON], agreement is still PL because the [+PERSON] conjunct provides an index, and there is no matching index on the 5&UP conjunct, (3). If the coordination consists solely of 5&UPs, there is no PERSON feature to compute semantic agreement. In addition, since 5&UPs are numberless, the system cannot calculate the number from morpho-syntactic features either, and the only plausible agreement is post-syntactic agreement with the closest conjunct (Bhatt and Walkow 2013), (1). If one conjunct is [−PERSON], the system can either track the PERSON feature (⇒ PL; syntactic agree), or morpho-syntactic features (⇒ CCA; post-syntactic), (2).

Keywords: numerals; Agree; coordination; Czech

References

Bhatt, Rajesh, and Martin Walkow. 2013. Locating agreement in grammar: An argument from agreement in conjunctions. *Natural Language & Linguistic Theory* 31:951–1013.

Farkas, Donka, and Draga Zec. 1995. Agreement and pronominal reference. In *Advances in Roumanian linguistics*, ed. Guglielmo Cinque and Guiliana Giusti, 83–102. John Benjamins Publishing.

Heycock, Caroline, and Roberto Zamparelli. 2005. Friends and colleagues: Plurality, coordination, and the structure of DP. *Natural language semantics* 13:201–270.

King, Tracy Holloway, and Mary Dalrymple. 2004. Determiner agreement and noun conjunction. *Journal of Linguistics* 40:69–104.

Lasersohn, Peter. 2013. *Plurality, conjunction and events*. Springer Science & Business Media.

Marušič, Franc, Andrew Ira Nevins, and William Badecker. 2015. The grammars of conjunction agreement in Slovenian. *Syntax* 18:39–77.

Nevins, Andrew. 2007. The representation of third person and its consequences for Person-Case effects. *Natural Language & Linguistic Theory* 25:273–313.

Preminger, Omer. 2009. Breaking agreements: Distinguishing agreement and clitic doubling by their failures. *Linguistic Inquiry* 40:619–666.

The (Not So) Inverse Linking Pattern in Plains Cree

Yuriy Kushnir

Leipzig University, Leipzig, Germany
`yuriy@lingvistas.com`

Background and claims. In this work, I argue that the so-called inverse agreement pattern observed in the Algonquian language Plains Cree is, in fact, a system displaying the more common typological feature called differential case marking, influenced by an intrinsic salience hierarchy built into the grammar. By re-analyzing the direction markers of Plains Cree as case markers, I assert that there is no (stipulative) morpho-syntactic feature of the type [±INV] as assumed in previous work.

Data. The most striking typological feature of Cree is the so-called inverse agreement pattern (Klaiman 1992, Zúñiga 2006) driven by the following language-specific salience hierarchy: 2 » 1 » 3 » 3' » 3". A basic example can be seen below:

(1) *ki-waapam-**aa**-w-ak*　　　(2) *ki-waapam-**iko**-w-ak*
2-see-**DIR**-3.ANIM-3PL　　　　2-see-**INV**-3.ANIM-3PL
'You see them.'　　　　　　　'They see you.'

The direction markers marked in bold indicate whether the argument configuration is aligned properly with the salience hierarchy (i.e. whether the agentive argument is more discourse-salient than the patient). The nature of these markers is, however, questionable since some of them encode not only directionality, but also φ-features of the respective argument DPs (3-6). Also, it is not entirely clear how 'inverseness' is formally implemented: most previous work either states the descriptive generalization without any formal derivation or has to postulate a stipulative feature of the kind [±INV] (e.g. Stump 2001).

(3) *ki-waapam-**i**-n*　　　　(4) *ki-waapam-**iti**-n*
2-see-**DIR(2›1)**-SG　　　　2-see-**INV(1›2)**-SG
'You see me.'　　　　　　 'I see you.'
(5) *ni-waapam-**aa**-w*　　　 (6) *waapam-**ee**-w*
1-see-**DIR(SAP›3)**-3.ANIM　 see-**DIR(3›3)**-3.ANIM
'I see him.'　　　　　　　 'He_{prox} sees him/them_{obv}.'

If we juxtapose these latter examples with (1) and (2), it becomes evident that the direction markers reflect various properties of the arguments. The directionality marking system is thus not at all 'clean'. I therefore argue that what hides behind these affixes are actually fairly straightforward case markers whose distribution is driven by the inherent salience hierarchy outlined above. This analysis continues along the guidelines outlined in Aissen 2002 and Wunderlich 2005, and provides a deeper account for the agreement pattern in Plains Cree than that described in traditional reference grammars (Dahlstrom 1991, Wolfart 1973) or work dedicated to inverse languages.

Analysis. I assume that structural cases assigned in syntax are further decomposed into binary features, one of them being [±subj]. An argument marked for [+subj] is deemed to be in the Ergative case; [–subj] is the Accusative, and a marker in the case slot which is

underspecified for [±subj] is considered to be in the Absolutive (unmarked) form. This creates the following tripartite system: Abs ↔ Erg ↔ Acc.

In a language with differential case marking (DCM), various arguments will or will not bear overt case morphology depending on their internal properties. If we assume the inherent hierarchy mentioned in the paragraphs above, it may be postulated that SAP (speech act participant) arguments are prototypical agents, while third-person actants are expected to be patients. In this configuration, the interpretation is trivial and therefore no case marking is needed for either one of the arguments. However, if one (or both) of the arguments licensed by the verb is/are atypical, e.g. 3›SAP / SAP›SAP or 3›3, a case marker must be used to reflect this.

In order to implement my idea, I use the Distributed Morphology (DM) framework. Before a vocabulary item may be inserted into a terminal, the features of a functional head are manipulated by the morphological apparatus in order to enable the hierarchy effects mentioned above. Two crucial impoverishment rules deleting case features apply as follows: **1.** +subj → Ø / { +part }; **2.** –subj → Ø / { –part }. The feature [±part] distinguishes between SAP and non-SAP arguments. These two rules insure that prototypical subjects and objects are not marked for case. As for the actual vocabulary items, they are represented by several straightforward case markers:

1. { +subj –part } ↔ /-iko/ 3.ERG
2. { –subj +part –2 } ↔ /-i/ 1.ACC
3. { –subj +part (+2) } ↔ /-iti/ 2.ACC
4. { +part } ↔ /-aa/ 1/2.ABS
5. { –part } ↔ /-ee/ 3.ABS

The fact that the ergative is not marked in 3.prox › 3.obv configurations can be captured by a further impoverishment rule which effectively removes the [+subj] feature in these contexts based on the fact that the object is even lower on the hierarchy scale than the subject.

Conclusion. In this paper, I have shown how a relatively simple case-marking system can provide an adequate account for the inverse pattern observed in Plains Cree. This re-addresses the challenge of analyzing such systems in terms of their formal behavior on deeper representation levels.

Keywords: morphology, inverse, algonquian, case, argument alignment.

References

Aissen, Judith. 2003. "Differential Object Marking: Iconicity vs. Economy." *Natural Language & Linguistic Theory* 21: 435-483.

Dahlstrom, Amy. 1991. *Plains Cree Morphosyntax.* London & New York: Garland Publishing, Inc.

Halle, Moris & Alec, Marantz. 1993. "Distributed Morphology and the Pieces of Inflection." In *The view from Building 20: Essays in Linguistics in Honor of Sylvian Bromberger*, edited by Kenneth Hale & Samuel Jay Keyser, 112-176. Cambridge, Mass.: MIT Press.

Klaiman, M. H. 1992. "Inverse languages." *Lingua* 88: 227-261.

Wunderlich, Dieter. 2005. "The challenge by inverse morphology." *Lingue e Linguaggio* 4: 195-214.

Zúñiga, Fernando. 2006. *Deixis and alignment. Inverse systems in indigenous languages of the Americas.* Amsterdam & Philadelphia: John Benjamins Publishing Company.

Nasal Place Neutralization in Classical Nahuatl: A Derivational OT Account

Michał Kuźmicki

University of Warsaw, Poland
Mikaelk89@gmail.com

1. Introduction. The paper offers a phonological account of a previously unrecognized pattern in the distribution of nasal segments in Classical Nahuatl. I argue that their behaviour is driven by place restrictions on coda nasals. However, there is an asymmetry between morpheme-internal and morpheme final codas. I show that standard Optimality Theory is unable to handle these patterns but that the problem can be easily solved if the possibility of level distinction in the evaluation of output forms is admitted.

2. Descriptive generalizations. The two nasal stops in Classical Nahuatl, bilabial [m] and alveolar [n], contrast before vowels but elsewhere their distribution is restricted. On the basis of data gathered from descriptive sources (Lockhart 2001, Campbell & Karttunen 1989), three generalizations may be drawn: (a) Morpheme-internally, nasals agree in terms of place with the following consonant unless it is dorsal, when [n] surfaces, see (1); (b) Word-finally, only [n] is found. This static generalization is supported by alternations, whereby underlying /m/ delabializes when followed by a word boundary, as in (2); (c) Across morpheme boundaries, NC sequences diverge: [n] can appear before any segment, whereas [m] is only found before other bilabials. Thus, underlying *n*s are invariant (3) but underlying *m*s alternate with [n], (4).

(1) pampa [pampa] 'on behalf of'; intlā [intła:] 'when'; cenkah [senkaʔ] 'very, greatly'
(2) nemi [nemi] 'He/she lives' – nen [nen] 'He/she lived'
(3) conmaca [k+on+maka] 'He gives it to him' – conhuica [k+on+wika] 'He takes it away'
(4) ampāquih [am+pa:ki+ʔ] 'You (PL) are happy' – annemi [an+nemi+ʔ] 'You (PL) live'

3. The problem. The lack of restrictions in the prevocalic position, coupled with the fact that syllables in Classical Nahuatl are maximally CVC, suggests that the observations above can be attributed to a version of the Coda Condition constraint (Itô 1986) that penalizes a nasal segment's Place if it is not associated with the syllable onset (NCC). If place assimilation is viewed as place sharing, observation (a) can be explained by ranking NCC above IDENTITY constraints that require place faithfulness. Assimilation to dorsals is blocked due to an undominated segment inventory constraint banning the velar nasal, *[ŋ]. In this case, the least marked alveolar nasal emerges as a result of the universal ranking *PL(LAB) » *PL(COR). However, the ranking required to analyze place assimilation, shown in (5), yields incorrect results for observations (b) and (c). For word-final nasals, it predicts that the faithful candidate should always win, as both word-final [n] and [m] violate NCC. For sequences spanning two morphemes, it predicts that not only underlying *m*s but also *n*s should assimilate.

(5) HAVEPLACE, *[ŋ], NCC » IDENT(PLACE) » *PL(LAB, DOR) » *PL(COR)

To derive the correct results for observations (b) and (c), it is necessary to use a version of NCC relativized to labials, while the more general version of NCC should be ranked low:

(6) HAVEPLACE, *[ŋ], NCC(LAB) » IDENT(PLACE) » *PL(LAB, DOR) » * PL(COR), NCC

Although this ranking works for observations (b) and (c), it predicts that morpheme-internally, /n/ should not assimilate to the following labial sounds, contrary to the facts.

4. Proposal. The ranking paradox described above can be solved if the difference between the stem level and word level is recognized in OT (Kiparsky 2000, Rubach 2000, Bermúdez-Otero 2003). At stem level, high-ranked NCC results in placeless nasals in the coda position, both word-internally and word-medially (Table 1) if HAVEPLACE is low ranked and place sharing is penalized by *MULT-LINK (Rubach 2000, 288). At word level, NCC and *MULT-LINK are demoted, while NCC(LAB) and HAVEPLACE are ranked higher (Table 2). This not only yields the correct results for observations (a–c) but also avoids the directionality problem discussed, e.g. by Wilson (2001) and McCarthy (2008).

Table 1. DOT derivation: stem level (hypothetical inputs used for compactness)

//panpa//	*MULT-LINK	*[ŋ]	NCC	IDENT (PL)	*PL (LAB)	*PL (COR)	NCC (LAB)	HAVE PLACE
a. pan.pa			*!		**	*		
b. pam.pa			*!	*	***		*	
☞ c. paN.pa				*	**			*
d. pam͡pa	*!			*	**			
e. pan͡ta	*!			*	*	*		
//nem//	*MULT-LINK	*[ŋ]	NCC	IDENT (PL)	*PL (LAB)	*PL (COR)	NCC (LAB)	HAVE PLACE
a. nem			*!		*	*	*	
b. nen			*!	*		**		
☞ c. neN				*		*		*

Table 2. DOT derivation: word level (hypothetical inputs used for compactness)

//on+paNpa//	*[ŋ]	HAVE PLACE	NCC (LAB)	IDENT (PL)	*PL (LAB)	*PL (COR)	NCC	*MULT-LINK
a. on.paN.pa		*!			**	*	*	
b. on.pan.pa				*	**	**!	**	
☞ c. on.pam͡pa				*	**	*	*	*
d. om.pam.pa				**!	**			**
e. om.pan.pa				**!	**	*	*	*
//am+neN//	*[ŋ]	HAVE PLACE	NCC (LAB)	IDENT (PL)	*PL (LAB)	*PL (COR)	NCC	*MULT-LINK
a. am.neN		*!	*		*	*	*	
b. am.nen			*!	*	*	**	*	
c. an.nen				**		***!	*	
☞ d. an͡nen				**		**		*

Keywords: Classical Nahuatl, Optimality Theory, nasals, delabialization, assimilation

References

Campbell, R. Joe and Frances Karttunen. 1989. *Foundation Course in Classical Nahuatl. Volume 2: Vocabulary and Key*. Missoula: University of Montana.

Bermúdez-Otero, Ricardo. 2003. "The Acquisition of Phonological Opacity." In *Variation within Optimality Theory: Proceedings of the Stockholm Workshop on 'Variation within Optimality Theory'*, edited by Jennifer Spenader, Anders Eriksson and Östen Dahl, 25–36. Stockholm: Department of Linguistics, Stockholm University.

Itô, Junko 1986. Syllable theory in prosodic phonology. Doctoral dissertation, University of Massachusetts, Amherst. New York: Garland Press.

Kiparsky, Paul. 2000. "Opacity and Cyclicity." *Linguistic Review* 17: 351–65.

McCarthy, John. 2008. "The Gradual Path to Cluster Simplification". *Phonology* 25: 271-319.

Lockhart, James. 2001. *Nahuatl as Written: Lessons in Older Written Nahuatl with Copious Examples and Texts*. Stanford: Stanford University Press.

Rubach, Jerzy. 2000. "Glide and Glottal Stop Insertion in Slavic Languages: A DOT analysis." *Linguistic Inquiry* 31: 271–317.

Wilson, Colin. 2001. "Consonant Cluster Neutralisation and Targeted Constraints." *Phonology* 18: 174-197.

The Structure of *v*-Heads and the Status of the Initiator Role

James E. Lavine

Bucknell University, Pennsylvania, USA

`jlavine@bucknell.edu`

Legate (2014) proposes a coarse-grained Initiator "macro-role" in her analysis of non-canonical voice constructions (see also Ramchand 2008). I argue below for a finer-grained treatment of causers based on Legate's own discussion of accusative survival in Ukrainian and Icelandic passives. My principal claim is that non-volitional causers are not external arguments and, as such, are not licensed by features of a Voice head. Further evidence for distinguishing non-volitional causers from the more general Initiator role comes from the restricted distribution of causers in Russian and Lithuanian "pain verbs" which also occur with accusative in the absence of an external argument. In the case of pain verbs, I show that VP-internal, non-volitional causers do not always find an (appropriate) interpretation when merged in the specifier of VoiceP. Note first the Transitive Impersonal Passive in Ukrainian (1) and its apparent counterpart in Icelandic (2), referred to by Jónsson 2009 and Sigurðsson 2011 as the "New Passive". In both constructions accusative appears on the thematic object and the participial morphology is default.

(1) *Tabir   bulo zajnjato   amerykans'kym   vijs'kom.*
     camp:ACC   was occupied:PASS American   troops-INST
     'The camp was occupied by American troops.' [Lavine 2013:187–194]

(2) *Það   var skoðað   bílinn   af bifvélavirkjanum.*
     there:EXPL was inspected:PASS   car.the:ACC by car.mechanic.the
     'The car was inspected by the mechanic.' [Jónsson 2009: 294]

Legate's analysis falsely predicts that the passive-like construction in Ukrainian (3), involving a Natural Force Causer, should carry over to Icelandic (4) *if the Natural Force Causer is just one instantiation of the all-inclusive Initiator* (Legate 2014: 94). In (4) we see, instead, that the Icelandic New Passive fails with a Natural Force Causer.

(3) *Derevo   bulo   vypaleno   soncem.*
     wood:ACC   was:PST burned:IMP   sun:INST
     'The wood was burned/warped by the sun.' [Lavine 2013: 187–189]

(4) **Það   var rekið   bátinn   á land   af vindinum.*
     there:EXPL was driven:PASS   boat.the:ACC   to land   by wind.the
    [Intended: 'The boat was driven ashore by the wind'] [H. Sigurðsson, p.c.]

Natural Force, it follows, is not licensed by (Legate's) Voice. This suggests that accusative assignment in Ukrainian (3) might have to do, instead, with a lower *v*-CAUSE head and its associated feature of causation. Pylkkänen (2008) observes that transitive causative constructions occur in the absence of an external argument (and Voice), citing the Japanese Adversity Causative as an example (90–91). The patently non-passive Adversity Causative

can even occur with a "*by*-phrase" that names the causing event, just as Ukrainian *soncem*:sun-INST names the causer in (3). On the present analysis, in which causers are *not* all treated as syntactically equivalent, implicit Agents, as in the passives in (1–2), are introduced by Voice, whereas Voice plays no role in introducing non-volitional causers. I suggest below that the latter identify *v*-CAUSE as active and accusative-assigning. It follows that Ukrainian (3), in point of fact, is not passive, despite its passive-participial morphology and surface similarity with the Ukrainian passive in (1). Now consider the pain verbs in Russian and Lithuanian (5-6). In Russian (5b), if we merge the causer ('hunger') in Spec,VoiceP as a generic Initiator, where it receives nominative, the idiosyncratic reading is lost and the sentence is pragmatically odd. In Lithuanian (6b), higher merger of the causer ('intense light') is impossible, suggesting the absence of a VoiceP in this construction altogether. That is, some non-volitional causer constructions have no canonical transitive counterpart, which provides further evidence against the identical treatment of causers and other Initiators.

(5)a. *Život   krutit   ot   goloda*.   b.*#*Golod   krutit   život*.
     stomach:ACC turn:IMP from hunger   hunger:**NOM**.SG turn:PRS.3SG   stomach:ACC
     'My stomach is churning from hunger'

(6)a. Nuo ryškios šviesos jam   skaudėjo akis.   b.*Ryški šviesa jam skaudėjo akis
     from   intense light   he:DAT hurt:PST.3 eyes:ACC   intense light:**NOM**
     'His eyes hurt from the intense light.'   [Intended: 'Intense light hurt his eyes']

References

Jónsson, Johannes Gisli. 2009. The new impersonal as a true passive. In *Advances in Comparative Germanic Syntax,* eds. A. Alexiadou et al., 281–306. Amsterdam: John Benjamins.

Lavine, James E. 2013. Passives and Near-Passives in Balto-Slavic: On the Survival of Accusative. In *Non-Canonical Passives*, eds. A. Alexiadou and F. Schäfer, 185–211. Amsterdam: John Benjamins.

Legate, Julie Anne. 2014. *Voice and v: Lessons from Acehnese.* Cambridge, Mass.: MIT Press.

Pylkkänen, Liina. 2008. *Introducing Arguments.* Cambridge, Mass.: MIT Press.

Ramchand, Gillian Catriona. 2008. *Verb Meaning and the Lexicon*: *A First-Phase Syntax.* Cambridge: Cambridge University Press.

Sigurðsson, Halldór. 2011. On the new passive. *Syntax* 14: 148–178.

The Influence of Sequential Iconicity on the Ordering of Czech Adverbial Clauses

Michal Láznička

Charles University, Prague, Czech Republic
`michal.laznicka@ff.cuni.cz`

In an analysis of temporal adverbial clauses in English, Diessel (2008) concludes that sequential iconicity is a strong predictor of clause order. This term refers to the tendency for the order of events in discourse to reflect the perceived order of events in real world (e.g. Haiman 1985). Such situation is illustrated in 1., where the emptying preceded the lighting both in reality and in discourse. However, the subordinate clause (SC) may also precede the main clause (MC), the order of events being marked by the connective *než* 'before'.

1. *Dopil sklenici, než si zapálil.* 'He emptied the glass, before he lit a cigarette.'
2. *Než si zapálil, dopil sklenici.* 'Before he lit a cigarette, he emptied the glass.'

There are only a few studies addressing the principles governing clause order in Czech, most of the authors agreeing that information structure plays an important role in the positioning of SCs whose order relative to the MC is not fixed (e.g. Havránek and Jedlička 1970). However, there is no empirical research on the role of different potentially important factors influencing clause order.

In this paper, I follow Diessel's analysis and elaborate on Chudobová's (2011) pilot corpus study by addressing the influence of iconicity on clause order. In the analysis, I focus on the connectives *než*, *dříve/předtím než* 'before'; *až*, *potom/poté co* 'after'. These are particularly interesting because the connectives provide information about the order of events by marking the SC as either preceding or following the events depicted in MC, at the same time their 'time reverse' potential goes against the iconicity principle. These connectives are contrasted with *zatímco* 'while' and *protože* 'because'. While the former marks simultaneity of events, the latter is used in causal adverbial clauses and has no inherent temporal meaning. The "cause event" may thus precede, follow or happen simultaneously with the MC event.

To provide a complex picture of the clauses' behavior, I use samples of 500 instances for each connective extracted from the corpus SYN2015 (Křen et al. 2015), treating the 'before' and 'after' connectives both as a single construction. I code the individual sentences for following variables: SC position (ante-, inter-, or postposition), conceptual order (iconic, non-iconic), relative length of SC (number of words in SC divided by number of words total), SC complexity (single clause, other subordinate), sentence complexity (other MC or other clause subordinated to the MC), discourse status of event (given, new), subject identity (same, other), verb lemma, verb tense, aspect, and mood. This rich annotation allows to assess the role of iconicity and all the other potentially relevant factors using regression models. It also provides a general profile of the constructions especially with respect to TAM configurations of both MC and SC verbs. Based on the literature, I predict to find a combined effect of discourse status, complexity, and iconicity, or, in the case of the 'before' and 'after' connectives, "reversed" iconicity, as suggested by a preliminary corpus query.

Keywords: clause order – Czech adverbial clauses – sequential iconicity

References

Diessel, Holger. 2008. "Iconicity of sequence: A corpus-based analysis of the positioning of temporal adverbial clauses in English." *Cognitive Linguistics 19(3)*: 465-90.

Chudobová, Martina. 2011. *Větosled v současné češtině*. Master's thesis, Charles University in Prague.

Haiman, John. 1985. *Natural Syntax. Iconicity and Erosion*. Cambridge: CUP.

Havránek, Bohuslav and Alois Jedlička. 1970. *Česká mluvnice*. Praha: SPN.

Křen, M., V. Cvrček, T. Čapka, A. Čermáková, M. Hnátková, L. Chlumská, T. Jelínek, D. Kováříková, V. Petkevič, P. Procházka, H. Skoumalová, M. Škrábal, P. Truneček, P. Vondřička, and A. Zasina. 2015. *SYN2015: reprezentativní korpus psané češtiny*. Praha: Ústav Českého národního korpusu FF UK.

Czech Habitual Morpheme *-va-* as an Expression for Coding Gaps in Time Reference

Eva Lehečková and Jan Křivan

Charles University in Prague, Czech Republic

`Eva.Leheckova@ff.cuni.cz; Jan.Krivan@ff.cuni.cz`

The paper focuses on the status of Czech imperfective verbs formed by a grammaticalized morpheme *-va-* that conveys the meaning traditionally called habitual. First part of the paper concentrates on the description of the morpheme coding the past time reference. Second part focuses on a generalized account of *-va-* regardless of the tense category.

Two accounts of Czech *-va-* markers are at hand. First, there is a prevalent claim in existing literature on habituality in Czech (e.g. Kopečný 1962, Danaher 2003, among others) that habitual *-va-*verbs in the past tense denote a special meaning of a distant past (cf. (1) from Danaher 2003). Second, Plungian and van der Auwera (2006) in their cross-linguistic investigation of a specific class of "idle" past markers introduced the temporal concept of a "discontinuous past" (markers coding discontinuity of the past and the present).

(1) *V dětství   jsme   často chodí-va-li   / chodi-li   k   babičce.*
    As children AUX:1PL often go-HAB-PST:PL(IPFV) / go-PST:PL(IPFV) to grandmother
    "As children, we often used to visit / visited grandmother."

We assume that the latter account is adequate for Czech, too. In order to verify it, we carried out a corpus survey based on SYN2015 (Křen et al. 2015) where a set of habitual verbs was searched for. We have extracted a random sample of 1500 concordances and coded the dataset for a number of relevant formal and semantic features (e.g. lemma, tense, structural and event type of the verb and its temporal and measure adjuncts). A cluster analysis (see e.g. Gries 2009, Levshina 2015) was then performed so as to show what distinct subtypes of *-va-* verbs emerge from the data.

With the support of our corpus analysis, we argue that in contrast to languages that consistently express the distant past meaning by a specific marker (such as Makaa and Choctaw), Czech *-va-* verbs do not encode any objectively perceivable distant past meaning opposed to a recent past meaning. We show that Danaher's account is essentially wrong and it does not account for empirical evidence properly. The distant past meaning in Czech is only one of several contextually induced components of a complex meaning of a habitual marker *-va-*. We suppose that the language specific past *-va-* coding in Czech is essentially based on the discontinuity temporal semantics suggested by Plungian and van der Auwera.

Following a well-known Reichenbach's schema (1966 [1947]) we describe the crucial temporal meaning of the *-va-*form in the past as a gap between the time of speech (S) and the time of secondary reference (R, denoting the moment when a habit ceased to exist). Usage of *-va-*forms in Czech depends on two properties that vary according to cognitive and extra-linguistic conditions: (i) variable of time-span of E, (ii) variable interval between R and S.

Crucially, from a general perspective the properties (i) and (ii) allow to account for the whole range of habitual usage of *-va-* marker in Czech, irrespective of the value of the tense attribute. We predict that the *-va-* marker shares the identical inherent feature in all its

occurences – a gap in time reference (for the future the time between S and R, for the past the time before R, in both cases R denoting the moment when a habit was initiated). Finally, we discuss this prediction and its consequences in a typological perspective of languages with "discontinuous past" markers.

Keywords: habituals, Czech, distant past, time reference points

References
Danaher, David. 2003. *The Semantics and Discourse Function of Habitual-Iterative Verbs in Contemporary Czech*. Munich: Lincom.
Gries, Stefan T. 2009. *Quantitative Corpus Linguistic with R: A Pratical Introduction.* New York: Routledge.
Kopečný, František. 1962. *Slovesný vid v češtině*. Praha: Nakladatelství Československé akademie věd.
Křen, Michal, Václav Cvrček, Tomáš Čapka, Anna Čermáková, Milena Hnátková, Lucie Chlumská, Dominika Kováříková, Tomáš Jelínek, Vladimír Petkevič, Pavel Procházka, Hana Skoumalová, Michal Škrabal, Petr Truneček, Pavel Vondřička, and Adrian Zasina. 2015. *SYN2015: reprezentativní korpus psané češtiny*. Praha: Ústav Českého národního korpusu FF UK. http://www.korpus.cz.
Levshina, Natalia. 2015. *How to Do Linguistics with R. Data Exploration and Statistical Analysis.* Amsterdam: John Benjamins.
Plungian, Vladimir, and Johan van der Auwera. 2006. "Towards a typology of discontinuous past marking." *Sprachtypologie und Universalienforschung* 59: 317–49.
Reichenbach, Hans. 1966. *Elements of Symbolic Logic*. [Originally published in 1947.] New York: The Free Press.

A Pilot Study of T/V-Pronouns in European Languages Based on a Parallel Corpus of Online Film Subtitles

Natalia Levshina

Leipzig University, Leipzig, Germany

`Natalia.Levshina@uni-leipzig.de`

This pilot study investigates the cross-linguistic asymmetries in the construals of social interaction, focusing on the so-called T/V-pronouns (e.g. French *tu* and *vous*, German *du* and *Sie*, Russian *ty* and *vy*) in twelve European languages from the Indo-European and Finno-Ugric families (Bulgarian, Czech, Dutch, French, German, Greek, Romanian, Russian, Spanish and Swedish; Finnish and Hungarian) . These construals represent an elusive object of investigation because the communicative situations where one or the other pronoun is used are difficult to compare cross-culturally. Film subtitles in different languages offer a convenient solution of these problems because the situations of communication between film characters can serve as convenient comparative concepts (Haspelmath 2010) and represent diverse social relationships.

To compare the pronouns, I first identify approximately 200 contexts where the pronoun *you* is used in the English version of the online user-made subtitles of ten films which represent different genres. Next, I identify the personal pronouns used in the translations. I also code the relationships between the speaker and addressee (age, social status, level of familiarity, etc.) based on an in-depth analysis of multimodal evidence from the films. On the basis of these data I perform a series of multidimensional analyses (Multiple Correspondence Analysis with supplementary points and Multidimensional Scaling), creating token-based semantic maps (e.g. Wälchli & Cysouw 2012) and type-based constructional maps. These methods allow me to pinpoint the differences and similarities between the language-specific pronouns and compare the ways the languages 'carve up' the pragmatic space.

The results of this pilot study can be used for development of questionnaires that would allow for a fine-grained analysis of the pronouns, and for formulation of hypotheses that can be tested on authentic (non-translated) data. I will also discuss the implications of this study for translation theory and practice.

Keywords: personal pronouns, parallel corpus, probabilistic semantic map, multivariate statistics

References

Haspelmath, Martin. 2010. "Comparative concepts and descriptive categories in crosslinguistic studies." *Language* 86 (3): 663–687.

Wälchli, Bernhard, and Michael Cysouw. 2012. "Lexical typology through similarity semantics: Toward a semantic map of motion verbs." *Linguistics* 50 (3): 671–710.

Use of Parallel Texts as a Methodology in Cultural-Cognitive Linguistics: A Case Study on English-Chinese and English-Czech Parallel Texts

Wei-lun Lu

Center for Chinese Studies, Masaryk University, Czech Republic

`weilunlu@gmail.com`

The present paper addresses the usefulness of parallel literary texts in studying metaphor variation across languages and cultures, which is expected to help define cognitive linguistics as a multi-disciplinary field by attracting scholars in contrastive linguistics, corpus linguistics, linguistic typology, cultural linguistics, stylistics, translation, and literary studies.

The role of cultural context has been extensively recognized in metaphor studies. Different languages and cultures provide their users with different socio-cultural environments, with which the speakers understand, conceptualize and interact with the world around them. Accordingly, the metaphor (or the source concept involved therein) that different languages and cultures may utilize in talking about the same event is bound to vary.

Past research on the variation of metaphor has been methodologically based on use of introspection, mono-lingual corpora and experimental methods. However, as language production is heavily influenced by all sorts of context, there has been no way of studying the interaction of culture and metaphor by controlling for the same linguistic, physical and social context, while keeping the language production contextualized. In view of this problem, I believe that use of parallel texts (translations) constitute an efficient methodological opportunity for studying metaphor across languages and cultures in a contextualized way— If we see the author and the translator(s) as sensible text producers, then by keeping the same most other contextual factors, including linguistic, physical, social context, production mode and genre, researchers are allowed to empirically study the role played by the cultural context in metaphor use in stretches of discourse where all text producers try to get across highly similar (if not identical) messages. However, use of parallel texts (or translation) in studying metaphor has not received much attention, with only few exceptions (Chapter 7 in Kövecses 2005; Rojo and Ibarretxe-Antuñano 2013; Schaffner 2004; Tabakowska 1993).

Accordingly, the paper will present various parallel samples from English with translations from and to Chinese and Czech, using world masterpieces such as *Alice in Wonderland* (by Lewis Carroll) and *The Republic of Wine* (by Mo Yan), in order to testify the usefulness of the methodology in cognitive linguistics.

Keywords: metaphor, cultural variation, parallel texts, literature

References

Kövecses, Zoltan. 2005. *Metaphor in Culture: Universality and variation*. Cambridge: Cambridge University Press.

Rojo, Ana. and I. Ibarretxe-Antuñano (eds.) 2013. *Cognitive Linguistics and Translation. Advances in Some Theoretical Models and Applications*. Berlin: De Gruyter Mouton.

Schaffner, Christaina. 2004. "Metaphor and translation: Some implications of a cognitive approach." *Journal of Pragmatics*, 36: 1253-1269.

Tabakowska, Elzbieta. 1993. *Cognitive Linguistics and Poetics of Translation*. Tübingen: Gunter Narr Verlag.

Polyfunctionality and German Modals

Dagmar Machová

Tomas Bata University in Zlín, Czech Republic

`machova@fhs.utb.cz`

The paper argues that in German (and also in English), there is a link between **formal properties** of modal elements and **modal polyfunctionality**, i.e. the ability of a morpheme to express simultaneously both epistemic and deontic modalities. More precisely, the paper proposes the hypothesis that polyfunctionality of German modals triggers **the absence of agreement** in the singular paradigm in 1st and 3rd persons – see the following set, comparing a lexical verb *machen* 'make' and a polyfunctional modal verb *müssen* 'must':

(1) *machen* **'make'**   *müssen* **'must'**
    (a) *ich mache*   *ich muss Ø*
    (b) *du machst*   *du musst*
    (c) *er macht*   *er muss Ø*

To test the hypothesis, the paper analyzes semantic and formal properties of several German verbs. These include *dürfen* 'can', *können* 'can', *mögen* 'will', *müssen* 'must', *sollen* 'should', *wollen* 'will', *brauchen* 'need', *werden* 'become', *wissen* 'know', and *lassen* 'let'.

The paper proves that there is, indeed, a consistent correlation between the two properties. First, modal verbs *dürfen* 'can', *können* 'can', *mögen* 'will', *müssen* 'must', *sollen* 'should', *wollen* 'will' are all polyfunctional and demonstrate gaps in the agreement. The paper stresses that the absence of a full agreement paradigm is not automatically related to the preterite-present origin of the modal verbs; see polyfunctional *wollen* 'will', which was originally a regular verb with a regular agreement paradigm. Second, the paper shows that *werden* 'become' is modally polyfunctional and at the same time it demonstrates the same agreement paradigm as other central modals. Furthermore, *brauchen* 'need' has recently acquired polyfunctionality, and as a result, in some dialects, it demonstrates predicted gaps in the agreement paradigm – see the examples in (2).

(2) *werden* **'become'**   *brauchen* **'need'**
    (a) *ich werde*   *ich brauch Ø*
    (b) *du wirst*   *du brauchst*
    (c) *er wird Ø*   *er brauch Ø*

Third, the verb *lassen* 'let' has got a modal meaning similar to English deontic *can*, however, it is monofunctional, i.e. it does not express epistemic modality. As a result, it demonstrates a regular agreement paradigm. The paper also tries to provide an explanation of the semantic and formal behavior of the marginal modal *wissen* 'know', which is monofunctional, even though it demonstrates gaps in the agreement paradigm.

Keywords: modal polyfunctionality; agreement; German

References

Birkmann, Thomas. 1987. *Präteritopräsentia: Morphologische Entwicklungen einer Sondernklasse in den altgermanischen Sprachen*. Tübingen: Niemeyer.

Diewald, Gabriele. 1999. *Die Modalverben in Deutschen: Grammatikalisierung und Polyfuncionalität*. Tübingen: Max Niemeyer Verlag.

Heine, Bernd. 1995. "Agent-Oriented vs. Epistemic Modality: Some Observations on German Modals." In *Modality in Grammar and Discourse*, edited by Joan Bybee and Suzanne Fleischman, 17–54. Amsterdam: John Benjamins.

Hopper, Paul, and Elisabeth Closs Traugott. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.

Reis, Marga. 2001. "Bilden Modalverben im Deutschen eine syntaktische Klasse?" In *Modalität und Modalverben im Deutschen*, edited by Reimar Müller and Marga Reis, 287–318. Hamburg: Helmut Buske Verlag.

Roberts, Ian, and Anna Roussou. 2003. *Syntactic Change. A Minimalist Approach to Grammaticalization*. Cambridge: Cambridge University Press.

Van der Auwera, Johan, Andreas Ammann, and Saskia Kindt. 2005. "Modal polyfunctionality and Standard Average European." In *Modality. Studies in Form and Functi*on, edited by Alex Klinge and Henrik Müller, 247–72. London: Equinox.

N Morphology and Its Interpretation: Romance Feminine/Plural –*a*

M. Rita Manzini and Leonardo M. Savoia

Università di Firenze, Italy
`rmanzini@unifi.it; lsavoia@unifi.it`

Standard Italian has feminine plurals in –*a* alternating with masculine singulars. These are count plurals, cf. *tre dit-a* 'three fingers', with a distinctive semantics, denoting 'a plurality of weakly differentiated parts' (Acquaviva 2009). The *-a* plurals are few in Italian, but they are quite productive in Central/Southern Italian varieties, for instance S. Gregorio Matese in Fig. 1. Loporcaro & Paciaroni (2011), based on Central/Southern Italian, treat the alternations [masc sg] vs. [fem pl] as defining a third, 'neuter' gender. Acquaviva (2009), based on Italian, argues that –*a* plurals are a "lexeme deriving process".

We contribute two sets of data to this discussion, from Central Calabrian (Fig. 2) and Romansh (Surselva) (Fig. 3). We assume that lexical roots are category-less (Marantz 1997) predicates; they have an argument that is bound by a D/Q operator (Higginbotham 1985). The functional layer closest to the root consists of a Class(ification) system: gender (and number, Borer 2005) in Romance/Germanic, nominal class in Bantu, classifiers in Chinese (Crisma et al. 2011). The Class system contributes to the nominal categorization of the expression, be it the Marantzian *n* (Kihm 2005), N Asp (Déchaine et al. 2014), or just N (Manzini & Savoia 2005). More controversially, we take all manifestations of N/Class morphology (gender/number, nominal class, classifiers) to have interpretive content. We work towards two conclusions: **(A)** Italo-Romance –*a* is an N/Class morpheme (inflectional); **(B)** the interpretive contribution of *-a* confirms the semantically contentful nature of N/Class in general.

Central Calabrian. Central Calabrian varieties like Iacurso (Fig. 2) allow us to pose the question of –*a* plurals independently of gender, since [fem] and [masc] are differentiated only in the singular. The plural has the gender-neutral realization –*i* on most nouns, on adjectives and on functional categories of the noun – alternating with the realization –*a* on some nouns. Acquaviva's (2009) semantic characterization of –*a* plurals as consisting of 'weakly differentiated parts' appears to holds for Calabrian as well, witness *l-i jiðit-a* 'the fingers'.

Let us assume that *-i* and –*a* are pure plurals. Manzini & Savoia (2011) impute to the plural (specifically to Italian –*i*) a content that they notate [⊆]; [⊆] says that subsets can be partitioned off the set denoted by the lexical base and is therefore essentially Borer's (2005) Div. Let us say that in Calabrian, the –*i* morphology is associated with the [⊆] content. The –*a* inflection will be associated with the same content, and with a further restriction to 'weakly differentiated' members, as in Fig. 4. Thus –*a* is an inflectional N/Class morpheme and at the same time it carries semantic content – which governs its agreement patterns.

Sursilvan. Sursilvan varieties of Romansh such as Vattiz (Fig.3) have an –*s* plural which combines both with bare [masc] bases and with –*a* [fem] bases. The same semantics that we have so far imputed to –*a* plurals appears to be associated with singular –*a* forms, alternating with bare bases, witness *l-a dɛt-a* 'the fingers set'. The singular status of –*a* is confirmed by agreement with the verb, e.g. *la dɛta ai liuŋga* 'the fingers IS long' (with distributive reading).

In present notation, –*s* is the [⊆] morpheme, i.e. a plurality of atomic individuals. Following Chierchia (2010), a mass singular is also a plurality of sorts, namely a whole made up of parts. Thus a singular mass noun is like a plural count noun in that both include a multiplicity – namely a multiplicity of individuals, or a multiplicity of parts. In this perspective, we are not surprised that the Romance –*a* morphology can turn up denoting both a 'plurality of poorly differentiated parts' (Central/Southern Italian) and a 'mass'/collective singular (Sursilvan). We stress this continuity by our notation of the 'mass'/collective singular

as [⊆: part/whole] as in Fig. 5. Assuming that [fem] is the Elsewhere setting of –a, the correct [fem] agreement patterns are derived.

(Central) Italian: consequences. In Central Italian, the –a morpheme is [⊆: 'weakly differentiated' members], as in Calabrian, agreeing with respect to the [⊆] property. At the same time, it is not gender neutral. Now, we have just postulated that, -a is [fem] by Elsewhere. We assume that this is true independently of whether –a is singular, as in Sursilvan, or plural, as in Central Italian, yielding [fem] agreement in both instances. As time allows, we will consider whether there are more principled treatments of the 'syncretism' of [⊆] and [fem] attested by –a.

Fig. 1   Inflection classes of S. Gregorio Matese (South-Central Italy)

	-u, -i (m)	-a, -e (f)	-e, -i (m)	-e, -i (f)	-u, -a (m, f)
sg	**r-u jatt-u** 'the (he-)cat'	l-a kɔʃʃ-a 'the thigh'	r-u pɛr-e 'the foot'	l-a noʃ-e 'the walnut'	**r-u riut-u** 'the finger'
pl	r-i jatt-i	**l-e kɔʃʃ-e**	r-i pɛr-i	l-e noʃ-i	**r-e reut-a**

Fig. 2   Inflection classes of Iacurso (Central Calabria, Italy)

	-u (m), -i	-a (f), -i	-e (m), -i	-e (f), -i	-u, -a
sg	**l-u kurtieɽ-u** 'the knife'	l-a rot-a 'the wheel'	l-u mɛlun-ɛ 'the melon'	l-a cav-ɛ 'the key'	**l-u jiðit-u** 'the finger'
pl	**l-i kurtieɽ-i**	**l-i ruɐt-i**	**l-i mɛlun-i**	**l-i cav-i**	**l-i jiðit-a, l-i kurtieɽ-a**

Fig. 3   Inflection classes of Vattiz (Lumnezia Valley, Switzerland)

	-∅, -s (m)	-a, -a-s (f)	-a
sg	**iʎ maʎ** 'the apple'	**l-a rɔd-a** 'the wheel'	**l-a mail-a** 'the apples (as a whole made of apple parts)'
pl	iʎ-s mail-ts	l-as rɔd-a-s	

Fig. 4   DP   Iacurso (Central Calabrian)

```
                              DP
                    ┌──────────┴──────────┐
                    D                     N
               ┌────┴────┐           ┌────┴────┐
               D         N           √      N/Class
               l         i          jiðit      a
                       [⊆]                [⊆: 'weakly differentiated' members]
```

Fig. 5   DP   Vattiz (Romansh)

```
                              DP
                    ┌──────────┴──────────┐
                    D                     N
               ┌────┴────┐           ┌────┴────┐
               D         N           √      N/Class
               l         a          dɛt       a
                                        [⊆: part/whole]
```

Fig. 6   DP   S. Gregorio Matese (South-Central Italy)

```
                              DP
                    ┌──────────┴──────────┐
                    D                     N
               ┌────┴────┐           ┌────┴────┐
               D         N           √      N/Class
               l         e          reut      a
                                   [⊆: 'weakly differentiated' members]
```
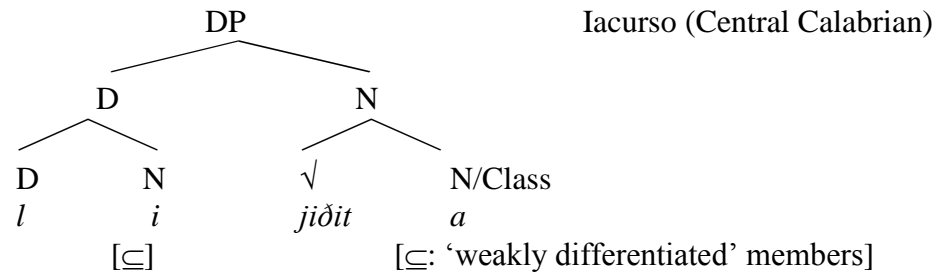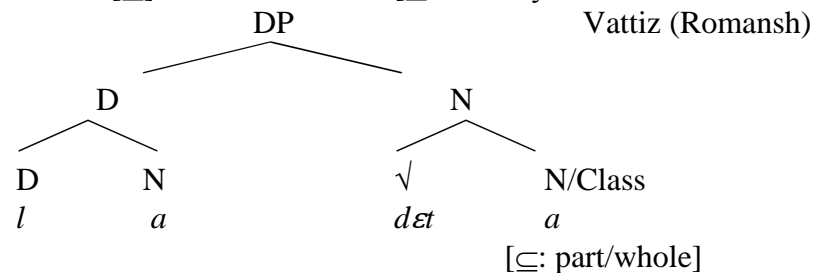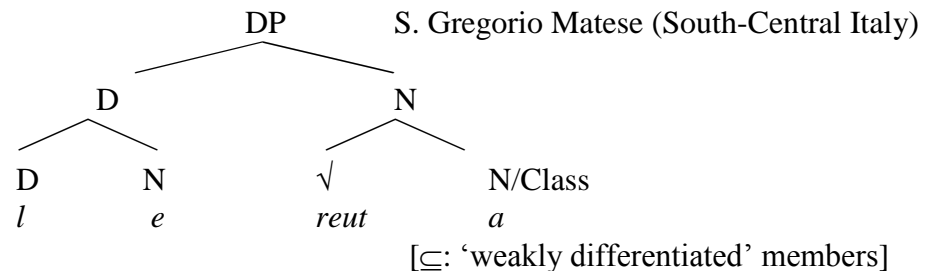
Boundary Crossing Motion Events in Czech Source and Target Texts: Evidence from a Parallel Corpus

Michaela Martinková

Palacký University, Olomouc, Czech Republic
michaela.martinkova@upol.cz

In 1985 Talmy first posits a typological distinction according to the way languages express Path and Manner in the description of Motion events. In most Indo-European languages (with the exception of Romance languages), motion verbs encode the Manner of motion, while the Path is expressed in what he calls a satellite, hence satellite-framed languages. In the second typological pattern it is the verb that encodes the Path. "If a Co-event of Manner … is expressed in the same sentence, it must be as an independent, usually adverbial or gerundive type constituent", and is often omitted (2000, 49). This was confirmed by psycholinguistic experiments, which revealed a difference in the "rhetorical style" in the description of motion events in the two types of languages (e.g. Berman and Slobin 1994, Slobin 1996). What was challenged, however, was the fact that all languages should fall neatly into one of the patterns (e.g. Slobin 2006). Differences were also observed between languages belonging to the same group (e.g. Ibarretxe-Antuñano 2004, Hijazo-Gascón and Ibarretxe-Antuñano 2013, Filipović 2007, Slobin et al. 2014). Translatological research then focused on the use of translation strategies when the source and target languages differ in their semantic typology, and investigated the amount of information lost in translation (Slobin 2005).

This pilot study relies on what Chesterman (2003) calls T-universals, i.e. "claims about the way translators use the target language" (318), namely quantitative deviations from the target language norm (Altenberg and Granger 2002, 40). Czech (satellite-framed, but satellite is a bound morpheme, which might lead to restrictions, cf. Filipović 2007 about Serbo-Croatian) is used to contrast English (satellite-framed, satellite is a free morpheme) and Spanish (verb-framed) in their expression of boundary crossing events. Tokens of verbs with the satellite *v-* [in] denoting a boundary crossing were downloaded from three subcorpora of Czech fiction (cca 9,5 million text positions each), created within the parallel translation corpus Intercorp: 1. Czech source texts, 2. Czech translations from English and 3. Czech translations from Spanish. Preliminary findings reveal indeed a higher number of different verb types and tokens in Czech translations from English than from Spanish, which reflects the typological difference. This happens in spite of the fact that "the information about the Manner of motion can be spontaneously added (Ibarretxe-Antuñano and Filipović [2013, 270] about interpreting witness interviews from Spanish to English). Using classification from Slobin et al. (2014), the paper then compares correspondences of selected Czech verbs in the Spanish and English source and target texts.

The aim of the study is not only to contribute to the on-going investigation of the typological difference, but also (given that Czech has not been yet systematically studied with respect to this typological difference) to initiate a discussion about the way Czech speakers encode motion events.

Keywords: parallel corpus, motion, lexicalization patterns, semantic typology

References

Altenberg, Bengt, and Sylvianne Granger. 2002. "Recent trends in cross-linguistic lexical studies." In *Lexis in Contrast: Corpus-based Approaches*, edited by Bengt Altenberg and Sylvianne Granger, 3–48. Amsterdam: John Benjamins.

Berman, Ruth A., and Dan I. Slobin. 1994. *Relating events in narrative: A crosslinguistic developmental study*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Chesterman, Andrew. 2003. "Contrastive Textlinguistics and Translation Universals." In *Contrastive analysis in language. Identifying linguistic units of comparison*, edited by Dominique Willems, Bart Defrancq, Timothy Colleman, and Dirk Noël, 213–229. New York: Palgrave Macmillan.

Filipović, Luna. 2007. *Talking about Motion A crosslinguistic investigation of lexicalization patterns.* Amsterdam/Philadelphia: John Benjamins.

Hijazo-Gascón, Alberto, and Iraide Ibarretxe-Antuñano. 2013. "Same family, different paths. Intratypological differences in three Romance languages." In *Variation and Change in the Encoding of Motion Events*, edited by Juliana Goschler and Anatol Stefanowitsch, 39–54. John Benjamins.

Rosen, Alexandr, and Martin Vavřín. 2015. *Korpus InterCorp, verze 8 z 4. 6. 2015.* Ústav Českého národního korpusu FF UK. Praha. Accessed January 5, 2016. http://www.korpus.cz.

Slobin, Dan I. 1996. "Two ways to travel." In *Grammatical Constructions: Their form and meaning*, edited by Masayoshi Shibatani and Sandra Thompson, 195–219. Oxford: Clarendon Press.

Slobin, Dan I. 2005. "Relating Narrative events in Translation." In *Perspectives on language and language development: Essays in honor of Ruth A. Berman*, edited by Dorit Ravid and Hava Bat-Zeev Shyldkrot, 115–129. Dordrecht: Kluwer.

Slobin, Dan I. 2006. "What makes manner of motion salient? Explorations in linguistic typology, discourse, and cognition." In *Space in languages: Linguistic systems and cognitive categories*, edited by Maya Hickmann and Stéphane Robert, 59–81. Amsterdam/Philadelphia: John Benjamins.

Slobin, Dan I., Iraide Ibarretxe-Antuñano, Anetta Kopecka, and Asifa Mají. 2014. "Manners of human gait: A crosslinguistic event-naming study." *Cognitive Linguistics* 25(4): 701–741.

Ibarretxe-Antuñano, Iraide. 2004. "Language typologies in our language use: the case of Basque motion events in adult oral narratives." *Cognitive Linguistics* 15(3): 317–349.

Ibarretxe-Antuñano, Iraide and Luna Filipović. 2013. "Lexicalization patterns and translation." In: *Cognitive Linguistics and Translation: Advances in Some Theoretical Models and Applications*, edited by Ana Rojo and Iraide Ibarretxe-Antuñano, 253–283. Berlin/New York: Mouton de Gruyter.

Talmy, Leonard. 2000. "Lexicalization patterns." In *Toward a Cognitive Semantics. Volume II.* Cambridge, MA: MIT Press.

Measuring String 'Randomness':
Applications of Quantitative Methods to Natural and Formal Languages

Vladimir Matlach and Diego Gabriel Krivochen

Palacký University, Olomouc, Czech Republic; and University of Reading, Great Britain
`v.matlach@seznam.cz`

In this presentation we address the issue of the recognition of random strings of symbols, where 'random' is to be interpreted as 'not being derived by means of a grammatical formalism'. We will present a quantitative procedure to identify random strings from strings that are the output of a formal grammar based on Type-Token Ratios (TTR), series of n-gram analysis in combination with Zipf's law and measurement of specific features and their comparison (Zipf, 1949). The grammars we will consider all fall within the Chomsky Hierarchy of formal grammars and languages (Chomsky, 1959). This is relevant for the study of both formal and natural languages, because we can address questions about the nature of the computational system that underlies human language by analyzing the quantitative properties of its output. What we propose is a simple method that can distinguish random strings from non-random strings with relative success. It has been tested for various types of texts ranging from natural languages, encrypted texts, computer binary code, DNA strings, sound, and various types of randomly generated strings (e.g., background radiation). The results are stable and provide good measure for randomness. Thus, we have a heuristic procedure to establish whether a string is random or not.

Prospects for future research on making the heuristics more fine graded in order to distinguish between levels in the Chomsky Hierarchy will also be presented. The ultimate aim of this method is to find a way to infer the type of Chomsky-normal / Greibach-normal grammar which generated a particular set of strings based on quantitative properties of said strings.

Keywords: String randomness; *n*-gram analysis; Type-Token Ratio; formal grammar; Zipf's law

References

Chomsky, Noam. 1959. "On Certain Formal Properties of Grammars". *Information and Control* 2. 137-167.

Greibach, Sheila. 1965. "A New Normal-Form Theorem for Context-Free Phrase Structure Grammars". *Journal of the ACM* 12 (1). 42-52.

Zipf, George. 1949. *Human Behavior and the Principle of Least Effort.* Cambridge, Mass.: Addison-Wesley.

Multiple and Short *Wh*-Movement as *Wh*-Movement to the Peripheries

Petra Mišmaš

University of Nova Gorica, Nova Gorica, Slovenia
`petra.mismas@ung.si`

In this talk I use Slovenian to explore the parallel behaviour of questions with multiple *wh*-movement, (1), and questions with short movement (i.e. *wh*-questions in which at least one *wh*-phrase moves to the clause initial position but one moves to a clause internal position, cf. Citko (2010)), (2). Based on the similarities, I argue that in both cases *wh*-phrases undergo *wh*-movement to a 'Periphery' – short *wh*-movement to the Low Periphery in the sense of Belletti (2004), and multiple *wh*-movement to the Left Periphery in the sense of Rizzi (1997).

In Slovenian, we can observe parallel behavior of non-initial *wh*-phrases in questions with multiple *wh*-movement, (1), and clause internal *wh*-phrases in questions with short movement, (2). In both (i) the order of the focused and the non-initial *wh*-phrases is free, (3a, b) vs. (3c, d), (ii) the order of the topic and the non-initial *wh*-phrases is free, (iii) in both there is no strict word order between the topic, focus, and *wh*-phrases, (4a, b) vs. (4c, d), and (iv) just as to the Left Periphery, more than one *wh*-phrase can be short moved, (1) vs. (2).

(1)   Kdo   je   kaj   kdaj Martinu   dal?
            who AUX   what when Martin.DAT   give
            'Who have what to Martin?'

(2)   Kdo   je   Martinu   kaj   kdaj dal?
            who AUX   Martin.DAT   what   when give
            'Who have what to Martin?'

(3)   (a) Kdaj   je   komu   TONETA   Miha   predstavil?
              when   AUX   who.DAT   TONE.ACC   Miha.NOM   introduce
            'When did Miha introduce TONE to whom?'

           (b) Kdaj je TONETA komu Miha predstavil?

           (c) Kdaj je Miha komu TONETA predstavil?

           (d) Kdaj je Miha TONETA komu predstavil?

           (e) #TONETA je Miha kdaj komu predstavil?

(4)   Maja je izpostavila Toneta virusu ebole.
        'Maja exposed Tone to the Ebola virus.'

        (a) Zakaj   je   kdaj   BOŽOTA   temu   virusu   Janez izpostavil?
            why   AUX   when   Božo.ACC   this   virus.DAT   Janez.NOM expose
            'Why and when did Janez expose BOŽO to this virus?'

        (b) Zakaj je temu virusu BOŽOTA kdaj/ kdaj temu virusu BOŽOTA Janez izpostavil?

        (c) Zakaj je Janez kdaj temu virusu BOŽOTA/ BOŽOTA temu virusu izpostavil?

        (d) Zakaj je Janez temu virusu kdaj BOŽOTA/ BOŽOTA kdaj izpostavil?

Based on this, I argue that short *wh*-movement is parallel to the movement of non-initial *wh*-phrases in multiple *wh*-fronting which I assume, following Mišmaš (2015a, b), is movement to the Left Periphery. Given the data, I propose that all non-initial *wh*-phrases move to *Wh*-Projections (either in the Low or the Left Periphery), which means that short movement is *wh*-movement to the Low Periphery in Slovenian (but see Citko (2010) for Polish). Based on the data, I show the structure of the Low and the Left Periphery in Slovenian, both of which can host *Wh*-, Focus, and Topic Projections in which the *wh*-, focus, and topic phrases are located.

This proposal enables us to treat multiple *wh*-questions with short *wh*-movement in the same manner as questions with multiple *wh*-fronting.

References
Belletti, Adriana. 2004. "Aspects of the low IP area." In *The structure of CP and IP. The cartography of syntactic structures* 2, edited by Rizzi, Luigi, 16–51. Oxford: Oxford University Press.
Citko, Barbara. 2010. "On the (a)symmetric nature of movement: A view from Polish *wh*- and passive movement." In *Formal Approaches to Slavic Linguistics 18: The Cornell Meeting 2009*, edited by Browne, Wayles, Adam Cooper, Alison Fisher, Esra Kesici, Nikola Predolac and Draga Zec, 38–57. Ann Arbor: Michigan Slavic Publications.
Mišmaš, Petra. 2015a. "On the Optionality of Multiple Wh-Fronting in a Multiple *Wh*-fronting Language. PhDdiss., University of Nova Gorica.
Mišmaš, Petra. 2015b. "*Wh*-in Situ in a Multiple *Wh*-fronting Language." In *Slavic Languages in the Perspective of Formal Grammar Proceedings of FDSL 10.5, Brno 2014, edited by* Zikova, Marketa, Pavel Caha and Mojmir Dočekal, 199–213. Frankfurt am Main: Peter Lang.
Rizzi, Luigi. 1997. "The fine structure of the left periphery." In *Elements of Grammar. A Handbook in Generative Syntax*, edited by Haegeman, Liliane, 281–337. Dordrecht: Kluwer Academic Publishers.

A Corpus-Based Study of Gradience of a Complex Preposition Category:
The Case of Polish *na rzecz*, *do spraw* and *w celu*

Urszula Modrzyk

Institute of the Polish Language, Polish Academy of Sciences, Cracow, Poland
`urszula.modrzyk@ijp-pan.krakow.pl`

Grammaticalization is considered a gradual process (Bybee 2011, Hoffmann 2005, Poplack 2011, Torres Cacoullos & Walker 2011). In effect, a synchronic 'gradience' of categories can be observed (Anderson 2001, Traugott & Trousdale 2013), which means that at any moment constructions belonging to one category can vary according to the degree of their grammaticalization. The aim of this study is to observe the degree of grammaticalization of three semantically similar Polish phrases, which show evident features of a complex preposition: *na rzecz* 'for the benefit,' *do spraw* 'for' and *w celu* 'in order to'.

There is an established array of tests used in 'armchair' linguistics to decide whether a certain Prepositional Phrase is in fact a complex preposition (Milewska 2003, Nowak 2008). Another aim of this paper is to discuss the possibilities and limitations of a realisable adaptation of these methods for a corpus study. The data used here was obtained from the National Corpus of Polish (NKJP).

The tests which were adapted for the purpose of this paper examine the following:
– discontinuity of phrases,
– possibility of relativization of the nominal constituent of the complex preposition,
– the question if pronouns, which function as complements, occur in post-prepositional forms (which would suggest the prepositional character of a given phrase)
– possibility to form questions, for example, *na czyją rzecz*? 'for whose benefit', and in consequence, to interpret the relation between 'rzecz' and its subordinate as one of possession,
– the question if a superordinate phrase opens a place for the whole complex preposition or only for its prepositional constituent,
– the question if a subordinate phrase is a complement of the whole complex preposition or if it is just a subordinate of the nominal constituent,
– semantic substitution – determining if the phrases can be replaced by a single preposition.

In the case of the first four tests, the number of occurrences of particular types of phrases (eg. continuous vs discontinuous) in the NKJP is considered. In the next two tests, I have measured the strength of the collocation between the complex preposition and its subordinate and superordinate phrases compared to the collocational strength between each of the constituents of the complex preposition separately and the adjacent words. Concerning semantic substitution, I have checked if there are examples of the most frequent left and right collocates with single-word prepositions in-between.

In addition to the tests listed above, I have examined the semantics of the phrases by analyses of semantic classes of their strongest collocates. Also the use of the phrases within proper names was examined, via analysis of their spelling (according to the rules of Polish orthography, prepositions in proper names should be spelled in lower-case).

The results of the study prove that the phrases in question are placed at different stages in the process of grammaticalization. Therefore, they can be seen as an example of 'gradience.' The most visible symptom of this 'gradience' is a difference between the results of syntactic and semantic analyses of the phrases. Another interesting outcome of the tests is the fact that the results of grammaticalization can suggest unevenness of the process – some of the phrases examined are more grammaticalized in bureaucratic texts.

Keywords: complex preposition, gradience, grammaticalization, Polish

References

Anderson, Henning. 2001. *Actualization and the (uni)directionalist*. In *Actualization: Linguistic Change in Progress*, edited by Henning Anderson, 225–248. Amsterdam: Benjamins.

Bybee, Joan L. 2011. *Usage-based theory and grammaticalization. In The Oxford Handbook of Grammaticalization*, edited by Bernard Heine and Heiko Narrog. Oxford: Oxford University Press.

Hoffmann, Sebastian. 2005. *Grammaticalization and English Complex Prepositions: A corpus-based study*. London and New York: Routledge.

Milewska, Beata. 2003. *Słownik polskich przyimków wtórnych*. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.

Nowak Tomasz. 2008. *Przyimki lokatywno-inkluzyjne we współczesnym języku polskim.* Katowice: Wydawnictwo Uniwersytetu Śląskiego.

Poplack, Shana. 2011. *Grammaticalization and linguistic Variation*. In *The Oxford Handbook of Grammaticalization*, edited by Bernard Heine and Heiko Narrog. Oxford: Oxford University Press.

Traugott, Elizabeth C., and Graeme Trousdale. 2013. *Constructionalization and Constructional Changes*. Oxford: Oxford University Press.

Torres Cacoullos, Rena, and James A. Walker. 2011. Collocations in grammaticalization and variation. In The Oxford Handbook of Grammaticalization, edited by Bernard Heine and Heiko Narrog. Oxford: Oxford University Press.

Gang Effects with Left-Branch Extraction: Arguments for Weighted Constraints

Andrew Murphy

Universität Leipzig, Germany

`andrew.murphy@uni-leipzig.de`

Problem: A long-standing puzzle in the literature on wh-movement in Slavic is why multiple left-branch extraction (MLBE) seems to be impossible in languages that have multiple wh-fronting (MWF) and left-branch extraction (LBE) independently (Fernandez-Salgueiro 2006, Grebenyova 2012). One would expect that if a language allows for both MWF (1) and LBE (2), it should allow these two processes to combine and permit MLBE. In languages with both processes (e.g. Polish, Russian, Serbo-Croatian), MLBE is entirely impossible (3).

(1) Kto$_j$ kogo$_i$ t$_j$ priglasil t$_i$ na užin?   (2) Čju$_i$ on kupil [$_{NP}$ t$_i$ mašinu] ?
     who whom   invited   to dinner   whose he bought   car

(3) *Kakoj$_i$ čju$_j$ [$_{NP}$ t$_i$ aktër] kupil   [$_{NP}$ t$_j$ mašinu] ?
      which   whose   actot bought   car   (*Russian*; Grebenyova 2012)

Following the standard approach in Bošković (2005), LBE is possible if languages lack a DP phase, there is no obvious reason why MLBE should be excluded. There have not been many attempts to explain this odd fact, and all existing proposals claim that LBE must involve a different kind of movement (Fernandez-Salgueiro 2006, Grebenyova 2012).

Proposal: Instead, I argue that the ban on MLBE is a case of cumulative constraint interaction in Harmonic Grammar. To model this, I adopt a constraint-based model of syntax with cyclic optimization (cf. Harmonic Serialism; McCarthy 2010, Heck & Müller 2013) and weighted constraints (cf. Harmonic Grammar; Legendre et al. 1990, Pater 2009). Crucially, operations are only permitted if they are *harmonically improving*, i.e. a movement operation is only possible if it does not violate a more important constraint than non-movement. In HG, constraints bear a numerical weight and violations are deducted from the base Harmony Score of 0. In a language allowing LBE, there is a constraint WH-CRIT stating that all wh-phrases must be in the specifier of a licensing head (C$_{[wh]}$). There is another constraint, LBC (Left-Branch Condition), banning LBE. If LBE is possible, the weighting w(WH-CRIT) > w(LBC) must hold. Thus, in Tableau 1 the candidate which does not move (a) has a worse harmony score than (a) and loses. Furthermore, if this language also allows MWF, then the constraint WH-CRIT must have a higher weight than *MULTSPEC , which punishes the creation of multiple specifiers. The weighting w(WH-CRIT) > w(*MULTSPEC) allows for MWF (T2). With these rankings in place, we would expect MLBE to be possible, since WH-CRIT > {LBC, *MULTSPEC}. HG is unique in that it allows for cumulative constraint interaction or 'gang effects'. Since we have weighted constraints, two constraints can 'gang up' to overthrow a higher one. In Step 1, LBE is licensed since it is harmonically improving to incur a violation of LBE to avoid a violation of WH-CRIT. For the second movement step (that creates an additional specifier), the summed weights of *MULTSPEC and LBC are higher than a single violation of WH-CRIT. This movement step is ruled out since it is not harmonically improving. This, with weighted constraints the ban on MLBE comes for free. Further evidence for this system comes from the suprising emergence of superiority effects with LBE in languages

ordinarily lacking superiority (Fernandez-Salgueiro 2006). It will be shown that the cyclic optimization model proposed here can also capture these facts unlike parallel optimization.

Keywords: syntax, left-branch extraction, superiority, optimality theory

Tableau 1

	Wh-Crit $w = 2$	LBC $w = 1.5$	$\mathcal{H}$
$[_{CP}\ C_{wh} \ldots [_{VP}\ V\ [_{DP}\ wh\ NP]]$			
a. $\quad [_{CP}\ C_{wh} \ldots [_{VP}\ V\ [_{DP}\ wh\ NP]]$	-1		-2
b. ☞ $[_{CP}\ wh_1\ C_{wh} \ldots [_{VP}\ V\ [_{DP}\ t_1\ NP]]$		-1	-1.5

	Wh-Crit $w = 2$	*MultSpec $w = 1.5$	$\mathcal{H}$
$[_{CP}\ C_{wh} \ldots [_{vP}\ wh \ldots wh\ ]$			
a. $\quad [_{CP}\ C_{wh} \ldots [_{vP}\ wh \ldots wh\ ]$	-2		-4
b. $\quad [_{CP}\ wh_1\ C_{wh} \ldots [_{vP}\ t_1 \ldots wh\ ]$	-1		-2
c. ☞ $[_{CP}\ wh_1\ wh_2\ C_{wh} \ldots [_{vP}\ t_1 \ldots t_2\ ]$		-1	-1.5

Tableau 2

Step 1:

	Wh-Crit $w = 2$	*MultSpec $w = 1.5$	LBC $w = 1.5$	$\mathcal{H}$
$[_{CP}\ C_{wh} \ldots [_{vP}\ [_{DP}\ wh\ NP] \ldots [_{DP}\ wh\ NP]\ ]$				
a. $\quad [_{CP}\ C_{wh} \ldots [_{vP}\ [_{DP}\ wh\ NP] \ldots [_{DP}\ wh\ NP]\ ]$	-2			-4
b. ☞ $[_{CP}\ wh_1\ C_{wh} \ldots [_{vP}\ [_{DP}\ t_1\ NP] \ldots [_{DP}\ wh\ NP]\ ]$	-1		-1	-3.5

Step 2:

	Wh-Crit $w = 2$	*MultSpec $w = 1.5$	LBC $w = 1.5$	$\mathcal{H}$
$[_{CP}\ wh_1\ C_{wh} \ldots [_{vP}\ [_{DP}\ t_1\ NP] \ldots [_{DP}\ wh\ NP]\ ]$				
a. ☞ $[_{CP}\ wh_1\ C_{wh} \ldots [_{vP}\ [_{DP}\ t_1\ NP] \ldots [_{DP}\ wh\ NP]\ ]$	-1			-2
b. $\quad [_{CP}\ wh_1\ wh_2\ C_{wh} \ldots [_{vP}\ [_{DP}\ t_1\ NP] \ldots [_{DP}\ t_2\ NP]\ ]$		-1	-1	-3

Tableaux 3 & 4

References

Bošković, Zeljko. 2005. "On the Locality of Left-Branch Extraction and the Structure of NP." *Studia Linguistica* 59: 1–45.

Fernández-Salgueiro, Gerardo. 2006. "On the Incompatibility of Multiple WH-movement with Left-Branch Extraction in Serbo-Croatian." In *Proceedings of FASL 14*, edited by J. E. Lavine, H. Filip, S. Franks & M. Tasseva-Kurktchieva. 157–171. Ann Arbor: Michigan Slavic Publications.

Grebenyova, Lydia. 2012. *Syntax, Semantics and Acquisition of Multiple Interrogatives: Who wants what?*. Amsterdam: John Benjamins.

Heck, Fabian and Gereon Müller. 2013. "Extremely local optimization." In *Linguistic Derivations and Filtering: Minimalism and Optimality Theory*, edited by H. Broekhuis and R. Vogel. 136–165. London: Equinox.

Pater, Joe. 2009. "Weighted Constraints in Generative Linguistics." *Cognitive Science* 33: 999–1035.

Processing and Acceptability Properties of Predicate Ordering Effects in Copredication

Elliot Murphy and Andrea Santi

University College London, London, United Kingdom
elliot.murphy@ucl.ac.uk; a.santi@ucl.ac.uk

Copredication is standardly defined as a syntactic construction in which two predicates simultaneously apply to the same argument (Asher 2011). The nominal within the DP consequently has no fixed interpretation, but takes multiple contradictory predicates, as when event and object readings apply to *lunch* in (1), creating an 'impossible' entity.

(1) Lunch was delicious but took forever.

This presentation will explore the acceptability properties of copredication and to what extent they can inform debates both about the cost of putative type-shifting operations which generate copredications and formal theories of its structure. Across two acceptability judgement Experiments, we test whether copredication in *book-*, *lunch-* and *city*-type nominals is difficult across-the-board or depends on sense order. Psycholinguistic studies claim type-shifting operations are costly in environments such as complement coercion. Experiment 1 tested whether copredication, and hence type-shifting, is costly in a 2 (Nominal Number; 1 or 2) x 2 (Sense Type; related or distinct) design. (2a-d) shows example sentences for each condition:

(2) (a) Brad said that the *absorbing* and *readable* **journal** was part of the office block.

(b) Brad said that the *prosperous* and *readable* **journal** was part of the office block.

(c) Brad said that the *absorbing* **magazine** and *readable* **journal** were part of the office block.

(d) Brad said that the *prosperous* **magazine** and *readable* **journal** were part of the office block.

A 2 x 2 by-subjects ANOVA revealed a significant effect of Sense Type ($F(1,47) = 32.410$, $p = .<001$, $\eta_p^2 = .408$) but no effect of Nominal Number nor an interaction effect. Our data indicates that sentences that coordinate different senses, whether attributed to one or two nominals, are significantly less acceptable than those coordinating semantically related senses. The results further indicate that this acceptability difference across sense type did not interact with the number of nominals. From this, we can conclude that copredication is not costly.

Frisson (2015) detected an effect of polysemous sense order on single nominals, but due to inadequate controls it is not clear whether the effect is specific to copredication. As a result, Experiment 2 tested whether copredication costs are dependent on sense order by manipulating Sense Order (Concrete-Abstract, Abstract-Concrete) in addition to Nominal Number (1 or 2) (see 3a-d):

(3) (a) Stewart thought that the *creased* and *expensive* **bill** was being talked about at the table.

(b) Stewart thought that the *expensive* and *creased* **bill** was being talked about at the table.

(c) Stewart thought that the *creased* **book** and *expensive* **bill** were being talked about at the table.

(d) Stewart thought that the *expensive* **book** and *creased* **bill** were being talked about at the table.

The by-subjects ANOVA showed that acceptability is not only modulated by coordinating different senses ($F(1,51) = 5.429$, $p = .024$, $\eta_p^2 = .096$), but also by nominal number ($F(1,51) = 4.044$, $p = .050$, $\eta_p^2 = .073$). Concrete-Abstract items were significantly more acceptable than Abstract-Concrete items, and 2 nominals were more acceptable than 1. There was no significant interaction between sense order and nominal number. This sense order effect (already present in Frisson 2015) was not exclusive to copredication, although the average scores indicate that the effect was more severe for copredication relative to non-copredication. Comparing Abstract-Concrete ordering across nominal number reveals that this type of sense integration on a single nominal is marginally more costly than sense dispersal over multiple nominals ($p<.07$). The data suggests that a type-shifting operation interacting with sense order is likely responsible for the greater processing costs associated with copredication. Since acceptability was not modulated purely be sense frequency/dominance but rather sense type (with Abstract-Concrete sentences being universally the least acceptable across all nominal types), an 'Extended Mereological' (EM) model is consequently proposed under which multiple senses are stored on single representations of complex nominals and ease of interpretability is based on a semantic type hierarchy, with processing being easiest (and acceptability being highest) when semantically more complex senses follow less complex ones. This may explain the contrast in (4a-b), with the PROCESS sense in (4b) preceding the PHYSICAL sense:

(4) (a) The translation that lies on the table was difficult.

(b) #The translation that was difficult lies on the table.

Presenting data on *newspaper*-type nominals, the standard treatment of copredication as involving composite dot objects is also rejected. A new type, an 'Encompassed Type', is proposed under which nominals like *newspaper* and *city* are able to host more than two senses, in contrast to Asher (2011) and Gotham's (2015) claim that copredication is restricted to 'dual-aspect nouns' (see 5a-b). These data also support an EM model since three unrelated senses can be attributed to a single nominal and accessed without degraded results.

(5) (a) The well-written newspaper that I held this morning has been sued by the government.

(b) The low-lying and polluted city is known for its reactionary stance on equal marriage.

This presentation will consequently present novel hypotheses about the structure of copredication by discussing a number of theoretical and behavioural considerations.

Keywords: copredication; psycholinguistics; generative lexicon; type-shifting; concepts

References

Asher, Nicholas. 2011. *Lexical Meaning in Context*. Cambridge: Cambridge University Press.

Frisson, Steven. 2015. About bound and scary books: The processing of *book* polysemies. *Lingua* 157: 17-35.

Gotham, Matthew. 2015. "Copredication, Quantification and Individuation." PhD diss., University College London.

Parallel Corpus in Translation Studies:
Analysis of the Shifts in Segmentation in Phrases in the Czech-English-French Part of the Parallel Corpus InterCorp

Olga Nádvorníková

Charles University, Prague, Czech Republic
`olga.nadvornikova@ff.cuni.cz`

The aim of the present paper is to explore a methodological issue related to the use of parallel corpora, i.e. corpora composed of original and *translated* texts. As it was repeatedly stated, the language of translation presents certain particularities that may be called "laws" (Toury 1995), "tendencies" or "translation universals" (Baker 1993), in particular the simplification, the normalization and the explicitation. We are aware of the fact that the concept of "translation universals" may be contestable (Malmkjær 2012 or Zanettin 2013), but in this paper we will use this term in order to explain some shifts in segmentation in phrases appearing in the translations in the Czech-English-French part of the parallel corpus InterCorp. At the same time, we will show that these shifts may be the result of a global translation strategy potentially effecting the style of the original text.

The manual analysis of 4 000 non1:1 segments extracted from the Czech-French (and French-Czech) part of the parallel corpus InterCorp (imaginative and informative texts, Nádvorníková – Šotolová, forthcoming) revealed that a large number of the changes of the segmentation in phrases may be rated either as simplification (a long phrase is split in two or more phrases, considered more "digestible"), or to normalization (long or short phrases are split or linked to form a phrase of a "normal" length). The important observation was that these shifts occur in *both* directions of the translation, i.e. independently from the source language:

(1) J'ai fait le chemin <u>à pied. J'ai voulu </u>voir maman tout de suite. [I went there on foot. I asked to be allowed to see Mother at once, …] (Albert Camus, *L'Étranger/The Stranger*, 1950) > Došel jsem tam <u>pěšky a hned</u> jsem chtěl vidět maminku. [I went there on foot <u>and</u> I asked to be allowed to see Mother at once.] (transl. by Miloslav Žilina 1969)

(2) Ti soudruzi jezdci. Kde se vzali? Odkud? [These camarades on the horseback? Where did they come from? From where?] (Jáchym Topol, *Noční práce*, 2001) > D'où avaient bien pu sortir ces camarades à cheval ? [Where did the camarades on the horseback come from?] (transl. by Marianne Canavaggio, 2002)

In this paper, we intend to verify this tendency by adding a third language to the analysis (English) and by observing the non1:1 segments in the English-Czech and English-French language pairs.

Keywords: sentence splitting – translation universals – methodology – parallel corpus

References

Baker, Mona. 1993. "Corpus linguistics and translation studies: Implications and applications." In *Text and Technology* edited by Mona Baker, Gill Francis, and Elena Tognini-Bonelli, 233–250. Amsterdam and Philadelphia: John Benjamins.

Bisiada, Mario. 2014. ""Lösen Sie Schachtelsätze möglichst auf": The impact of editorial guidelines on sentence splitting in German business article translations." *Applied Linguistics*. *Advance online access*. June 1, 2015. doi:10.1093/applin/amu035.

Chlumská, Lucie. 2013. *Korpus Jerome – srovnatelný translatologický korpus překladové a nepřekladové češtiny*. Praha: ÚČNK FF UK, available at www.korpus.cz.

Fabricius-Hansen, Cathrine. 1999. "Information packaging and translation: aspects of translational sentence splitting (German–English/Norwegian)." In *Sprachspezifische Aspekte der Informationsverteilung* edited by M. Doherty, 175–214. Berlin: Akademie Verlag.

Malmkjær, Kirsten. 2012. "Translation Universals." In *The Oxford Handbook of Translation Studies* edited by Kirsten Malmkjær and Kevin Windle, 83–94. Oxford: Oxford University Press.

Nádvorníková, Olga, and Šotolová, Jovanka. Forthcoming. "Za hranice věty: analýza změn v segmentaci na věty v překladových textech na základě francouzsko-českého paralelního korpusu." In *Jazykové paralely* edited by Anna Čermáková, Lucie Chlumská, and Markéta Malá. Praha: ÚČNK/NLN.

Toury, Gideon. 1995. *Descriptive translation studies – and beyond*. Amsterdam: John Benjamins Publishing Company.

Zanettin, Federico. 2013. "Corpus Methods for Descriptive Translation Studies." *Procedia – Social and Behavioral Sciences* 98: 20–32.

Multiple Wh-Structures in Hungarian: A Late Insertion Analysis

Mark Newson and Márton Kucsera

Research Institute for Linguistics, HAS; ELTE, Department of English Linguistics
`newson.mark@btk.elte.hu, kucseram@inf.elte.hu`

The talk discusses Hungarian relatives and interrogatives with multiple *wh*-elements. We aim to show that by assuming that vocabulary insertion takes place after syntactic operations one can achieve a more unified theory of relative pronouns, interrogatives and quantifiers.

The talk focuses on the analysis of constructions as in (1).

(1) (a) Aki amit talált, megette.

       a.who a.what found ate

       "Everybody ate whatever they could find."

  (b) Ki mit talált?

       who what found?

       "Who found what?" (= what did everybody find)

  (c) *Aki talált amit, megette.

  (d) Ki talált mit? (≠ what did everybody find)

In cases like this, the analysis of É. Kiss (1993) faces problems. For interrogatives, she proposes that the second *wh*-element is moved to a FocP position while the first one moves to a quantifier position to account for its universal interpretation. One problem here is why a fronted wh-element can only be interpreted as a universal quantifier if it is accompanied by another fronted wh-element. Another problem is why a universal quantifier itself cannot occupy the position of the first wh-element. Moreover, the difference between multiple interrogatives and multiple relatives demonstrated in (1c) and (1d) is difficult to account for.

A different approach by Lipták (2000) argues for an adjunction structure where one relative pronoun is adjoined to the other. While this addresses the first of É. Kiss's problems, it merely describes the context in which the relevant interpretation is possible but does not account for why or how this interpretation is achieved. Lipták's proposal also does not address the difference between interrogatives and relatives.

Our goal is to demonstrate that there is no need to assume any kind of dependency between the two *wh*-elements. From our perspective, the question is not why the wh-element is interpreted as a universal quantifier, but why an underlying universal quantifier is spelled out by a wh-element in these cases. In essence, we claim that realizing a fronted quantifier as a quantifier is blocked in these contexts, and their realization as wh-elements is the next best alternative.

We argue that the basic difference between multiple relatives and multiple interrogatives is that the former necessarily involves multiple quantification while the latter may not. (1d) is possible as it contains no underlying quantifier and hence a non-distributive reading is achieved. Instead the example concerns two underlying interrogative pronouns, which are

both spelled out faithfully. (1c) is ungrammatical as it contains a non-fronted quantifier which is spelled out by a non-optimal wh-element.

As a result, there is no need to assume that there is any kind of dependency between the two *wh*-elements; that is, no movement is stipulated that adjoins one of them to the other. In addition, the adoption of the late insertion mechanism allows for a more general common analysis of these relative, interrogative and quantificational constructions.

Keywords: relative clauses, interrogatives, quantification, late vocabulary insertion

References
É. Kiss, Katalin 1993. "WH-movement and specificity." Natural Language & Linguistic Theory 11 (3): 8–120.
Lipták, Anikó. 2000. "Multiple relatives as relatives of question." In: Approaches to Hungarian 7. edited by Gábor Alberti and István Kenesei, 153–177. Szeged: JATE Press.

Long-Distance Wh-Extraction in Polish. Problems of Structure and Derivation

Marcin Orszulak

University of Wroclaw, Wroclaw, Poland

`marcin.orszulak@uwr.edu.pl`

The issue. The aim of the presentation is to discuss puzzling facts about Polish long-distance wh-extraction. Although in the literature there is a debate about the acceptability of such structures in Polish, which obstructs a unified theoretical explanation (Willim 1989, 116), researchers seem to agree that the extractions out of tensed indicative complements give degraded results (see [1]), whereas the extractions out of infinitival complements are acceptable (see [2]) (Giejgo 1981; Kardela 1986; Willim 1989; Witkoś 1995). Furthermore, extractions out of subjunctive complements constitute a problematic case; they seem to be allowed only in the case of verbs that also select for infinitival complements (see [3]) (Willim 1989).

[1]   *[$_{CP}$ Co$_i$ [$_{TP}$ Maria [$_{VP}$ sądziła,[$_{CP}$ t$_i$ że [$_{TP}$ Piotr [$_{VP}$ wcześniej studiował t$_i$]]]]]]?

            what   Mary   thought   that   Peter   previously studied

         "What did Mary think that Peter studied previously?"

[2]   [$_{CP}$ Co$_i$ [$_{TP}$ pro [$_{VP}$ chcesz [$_{CP}$ t$_i$ [$_{TP}$ PRO [$_{VP}$ kupić t$_i$]]]]]]?

          what   pro   want$_{2SG}$ PRO   buy$_{INF}$

         "What do you want to buy?"

[3]   [$_{CP}$ Co$_i$ [$_{TP}$ Maria [$_{VP}$ chce, [$_{CP}$ t$_i$ że-by [$_{TP}$ Piotr [$_{VP}$ kupił t$_i$]]]]]]?

          what   Mary   wants   that-$_{SBJV}$ Peter   buy

         "What does Mary want Peter to buy?"

Proposal. In the present analysis we will describe the structural properties of long-distance wh-questions by means of Split CP (Rizzi 1997). Following Lubańska (2005), we claim that in Polish wh-questions are derived via focus movement and we will show that the specifier of Focus Phrase is a landing site for Polish wh-phrases, which is evidenced by e.g. sentences in which topics precede wh-phrases and long wh-scoping constructions (Willim 1989; Orszulak 2011). Next, we will map our structural observations onto the phase model of derivation (Chomsky 2001; 2008). Following Gallego (2009, 136), we will assume that Force° should be treated as a strong phase head and thus Polish wh-phrases, which land in spec-FocP, so in the complement of a strong phase head that is further spelled out and thus impenetrable, are no longer accessible for further derivations (see [4]).

[4]   *[$_{ForceP}$ [$_{FocP}$ **Co$_i$** [$_{TP}$ Marysia zauważyła, [$_{ForceP}$ że [$_{FocP}$ **t$_i$** [$_{TP}$ Piotr   wybrał **t$_i$**]]]]]]?

              What   Mary   noticed   that   Peter   chose

         "What$_i$ did Mary notice that Peter chose t$_i$?"

In spite of the landing site, in Polish the extraction out of subjunctive and infinitival complements is still possible. Therefore, we will propose that phasehood is sensitive to the properties of tense (in line with Gallego (2007, 11) reasoning about subjunctives). In detail, we will suggest that a strong phase should exhibit a referentially independent tense with absolute interpretation (evaluated in connection with the utterance time, see Comrie 1985; Wurmbrand 2006). However, this is not found in the case of infinitives and extractable

subjunctives in Polish, whose tense is dependent and unrealised (Wurmbrand 2006; Tomaszewicz 2008). Consequently, infinitival and subjunctive CPs are weak phases, which accounts for the extraction facts in Polish (possible implications of the proposed analysis for other locality phenomena will also be discussed).

Keywords: Polish, wh-movement, Split CP, phase syntax

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. 2008. "On Phases." In *Foundational Issues in Linguistic Theory*, edited by Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta, 133–166. Cambridge, MA: MIT Press.

Comrie, Bernard. 1985. *Tense*. Cambridge: CUP.

Gallego, Ángel J. 2007. *Defective C*. Handout from The 2nd Brussels Conference on Generative Linguistics: Alternatives to Cartography.

Gallego, Ángel J. 2009. "Phases and Variation: Exploring the Second Factor of the Faculty of Language." In *Alternatives to Cartography*, edited by Jeroen van Craenenbroeck, 109–152. Berlin: Mouton de Gruyter.

Giejgo, Janina Aurelia. 1981. *Movement Rules in Polish Syntax*. Doctoral Dissertation, London: University College.

Kardela, Henryk. 1986. *Wh-Movement in English and Polish: Theoretical Implications*. Lublin: UMCS.

Lubańska, Maja. 2005. *Focus on Wh-Questions*. Frankfurt am Main: Peter Lang.

Orszulak, Marcin. 2011. "Focus and Wh-Movement in English and Polish: The Cartographic Approach." *Anglica Wratislaviensia* XLIX: 93–105.

Rizzi, Luigi. 1997. "The Fine Structure of the Left Periphery." In *Elements of Grammar*, edited by Liliane Haegeman, 281–337. Dordrecht: Kluwer.

Tomaszewicz, Barbara. 2008. "Subjunctive Mood in Polish." In *Studies in Formal Slavic Phonology, Morphology, Syntax, Semantics and Information Structure: Proceedings of FDSL 7*, edited by Gerhild Zybatow, Uwe Junghanns, Denisa Lenertová, and Petr Biskup, 221–233. Frankfurt am Main: Peter Lang.

Willim, Ewa. 1989. *On Word Order: A Government-Binding Study of English and Polish*. Kraków: UJ.

Witkoś, Jacek. 1995. "Wh-extraction from Clausal Complements in Polish: A Minimality/ Locality Account." *Folia Linguistica* 39: 223–264.

Wurmbrand, Susi. 2006. *Infinitives are Tenseless*. Retrieved May 15, 2010 from http://ling.auf.net/lingBuzz/000273.

The Morphosyntax of Pluractionality

Jamal Ouhalla

University College Dublin

`j.ouhalla@ucd.ie`

Pluractional markers are 'frequently reduplicative, most often derivational rather than inflectional [morphemes]' which 'attach to the verb to indicate a multiplicity of actions, whether involving multiple participants, times or locations' (Lasersohn 1995:238, 240). Greenberg (1991) cites examples from Arabic, where the pluractional verb form involves reduplication of the median consonant of the neutral form (e.g. *kasar* 'break' → *kassar* break.PL'). There is a substantial body of literature on pluractionality/event plurality, most of which falls in the domain of formal semantics (e.g. Cusic 1981, Carlson 2001, Faller 2008, Filip & Carlson 2001, van Geenhoven 2004, Laca 2004, Landman 1996, 2000, Tovena & Kihm 2008, Wood 2007). This presentation explores the morphosyntactic properties of pluractionality involving structure and derivation based on data from Arabic.

The foundational idea is the parallelism Greenberg (1991) draws between 'verbal [plural] number' and 'nominal [plural] number', which translates structurally into a Num(ber) node for CP-VP that parallels the Num-node of DP-NP (Ritter 1991). Moreover, Num has a CARD(INALITY) component, the valuation of which relative to the object of the verb or a VP-modifier (the contextual factors) turns out to play a critical role in determining pluractional interpretation.

(1) $[_{DP}$ D … $[_{\#P}$ [CARD] $[_{\#'}$ # $[_{NP}$ N…

(2) $[_{CP}$ C … $[_{\#P}$ [CARD] $[_{\#'}$ # $[_{VP}$ $[_{VP}$ V DP] [XP]]…

Greenberg (1991) highlights three properties of pluractionality in Arabic, argued here to follow from (2) in combination with verb-merger and Agree(ement) incorporating feature valuation. First, it involves a specialised verb form, called the intensive in the Afroasiatic tradition (Newman 1991), which derives from the neutral form by addition of a plural number morpheme that is generally expressed by some form of reduplication such as median consonant germination in Arabic. This property is shown to implicate merger of the verb into # which serves as input to non-concatinative derivation at PF.

Secondly, pluractionality typically involves plural objects (e.g. *kassar kibbe:ye:t/*kibbe:ye* 'break.PL glasses/a glass'), giving rise to a false similarity with object agreement (Newman 1991, Durie 1986, Corbett 2000). Depending on the nature of the event, pluractionality can also involve a singular object, giving rise to the so-called 'repetition meaning' (e.g. *xabbatˤ l-be:b* 'repeatedly hit.PL the door'). These properties are shown to follow from whether # in (2) enters derivation unvalued or already valued in combination with the mechanism of Agree applying to # and the object when # enters derivation unvalued.

The third property, traditionally described with the term 'exaggeration', is that plural objects are normally understood to have a high cardinality value (e.g. a high number of broken glasses). It turns out that this is a default interpretation that applies in the absence of a cardinal modifier, including one with a low value such as 'five', either associated with the

object (e.g. *kassar xames kibbe:ye:t* 'break.PL five glasses') or a VP-modifier in repetition contexts (e.g. *xabbatˤ l-be:b xames marraat* '[[hit.PL the door] five times]'). These facts are shown to implicate the valuation of the CARD component in (2) in terms of Agree relative to the object, a VP-modifier or nothing in the case of default valuation.

References

Cowell, M. W. 1964. *A Reference Grammar of Syrian Arabic, Based on the Dialect of Damascus*. Washigton : Georgetown University.

Ferreira, M. 2005. *Event Quantification and Plurality*. PhD Dissertation, MIT.

Filip, H. & Carlson, G. 2001. Distributivity strengthens reciprocity, collectivity weakens it. *Linguistics &Philosophy, 24*. 417-466.

Greenberg, J. 1991. The Semitic intensive as verbal plurality. In A. Kaye (ed.) *Semitic Studies in Honour of Wolf Leslau II*. Wiesbaden: Harassowitz, 577-587.

Laca, B. 2004. Progressive, Pluractionals and the Domains of Aspect. In O. Crouzet, H. Demidache, and S. Wauquier (eds) *Domain(e)s, Proceedings of the Journée de Linguistique de Nantes 2004:* 87-92.

Landman, F. 1996. 'Plurality', in S. Lappin (ed.), *The Handbook of Contemporary Semantic Theory*, pp. 425–458. Blackwell, Oxford.

Landman, F. 2000. *Events and Plurality*. Dordrecht: Kluwer.

Lasersohn, P. 1995. *Plurality, conjunction and events*. Dordrecht. Kluwer.

Newman, P. 1990. *Nominal and Verbal Plurality in Chadic*. Dordrecht, Foris.

Ritter, E. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. S. Rothstein (ed.) *Perspectives on Phrase Structure. Syntax and Semantics 25*. New York: Academic Press, 37-62.

Tovena, L. & A. Kihm. 2008. Nibbling is not many bitings in French and Italian: A morphosemantic analysis of internal plurality. *Proceedings 34th Annual Meeting of the Berkeley Linguistics Society*.

van Geenhoven, V. 2004. *For*-Adverbials, Frequentative Aspect, and Pluractionality. *Natural Language Semantics*, *12*, 135-190.

van Geenhoven, V. 2005. Atelicity, pluractionality, and adverbial quantification. In H. Verkuyl, H.de Swart and A. van Hout (eds) *Perspectives on Aspect*. Dordrecht: Springer.

Wood, E. J. 2007. *The Semantic Typology of Pluractionality*. Unpublished Ph.D. dissertation, UC Berkeley.

Gender and the 'Y' Question

Jeffrey Keith Parrott

Palacký University, Olomouc, Czech Republic

`jkparrott@gmail.com`

In recent years, generative morphosyntax has seen renewed interest in formulating theoretical models of grammatical gender, aka noun class (e.g., Acquaviva 2009; Puskar 2015, a.o.). In this presentation, I consider gender within the framework of Minimalist (Chomsky 2013) Distributed Morphology (DM, Halle & Marantz 1993; Embick & Noyer 2007), focusing on the idea that roots are acategorial, with no phonological, semantic, or grammatical features in the pre-syntactic Formative list, distinguished in syntax only by a unique (numerical) index that links root terminals to their exponence in the Vocabulary list at PF and their interpretation in the Encyclopedia list at LF (e.g., Harley 2014, a.o.). Among other benefits, accepting acategorial roots provides an appealing account of variation in idiomatic meanings at the level of the verb phrase (e.g., *beg the question* 'assume the conclusion' or 'raise the question') and complex word (e.g., *enormity* 'great depravity' or 'enormousness'); these and similar cases can be modeled as individually differing Encyclopedia entries for root terminals in particular morphosyntactic contexts.

The non-lexicalist DM architecture advocated here (1) is a strong implementation of the classic 'Y' model (e.g., Chomsky 1986:68, a.o.). Therefore it immediately raises what may be called the 'Y' question for gender. Cross-linguistically, nouns are 'assigned' a gender on the basis of the LF semantics of the nominal root (usually but not only biological sex, hence 'Y' also alludes to the chromosome), the PF morphophonology of the nominal root, or a combination of such properties (Comrie 1999; Corbett 1991; 2013). Gender agreement and Impoverishment (Nevins 2011; Parrott 2015) provide clear evidence that gender features must be present in syntax and morphology; gender features are evidently present at PF, where they condition allomorphy. In addition to the complex facts of semantically based assignment, it seems reasonable to suppose that gender features are present at LF on the grounds that gender may trigger semantic presupposition (e.g., Sudo 2012). We thus are faced with the serious but overlooked 'Y' question of how to associate gender features with semantic and phonological features when LF and PF have no access to each other after spellout, and roots have no semantic or phonological features prior to syntax.

I partially follow Kramer (2014; 2015, a.o.) in taking gender features to be bundled with categorizing little n terminals in the Formative list. In syntax, Merge can freely combine gendered little n terminals with indexed roots or complex terminals. However, I depart from Kramer (a.o.) in suggesting that gender features on n are in fact always potentially interpretable at LF, just in case they are specified in a root's Encyclopedia entry. Gender features are drawn from a set of universal grammatical features that plausibly includes [±animate], [±human], [±female], [±male], [±animal], [±plant], or [±edible], inter alia. The bundling of these features with categorizing n terminals in the Formative list (e.g., n[+human, +female]) is an acquisition task; the child must also learn which indexed roots are Merged with which gendered n terminals (e.g., [n [$\sqrt{}_{\text{AUNT}}$] n[+human, +female]]) by attending to externalized forms at PF, as well any interpretations at LF. From the perspective of

Minimalist DM, the 'Y' question is answered the same way for gender as it is for roots, namely, with syntax and lists but without a lexicon.

Keywords: gender, Distributed Morphology, Minimalism, roots, theoretical morphosyntax

Selected References
Acquaviva, Paolo 2009. 'Roots and Lexicality in Distributed Morphology', In *York-Essex Morphology Meeting 5*, eds. A. Galani, D. Redinger and N. Yeo, York: University of York, Department of Language and Linguistic Science.
Chomsky, Noam 1986. *Knowledge of Language: Its Nature, Origin, and Use*, Westport: Praeger Publishers.
Chomsky, Noam 2013. 'Problems of Projection', *Lingua*, 130 (2013): 33-49.
Comrie, Bernard 1999. 'Grammatical gender systems: A Linguist's assessment', *Journal of Psycholinguistic Research*, 28 (5): 457-66.
Corbett, Greville 1991. *Gender*, Cambridge: Cambridge University Press.
Corbett, Greville 2013. 'Systems of gender assignment', In *The World Atlas of Language Structures Online*, eds. M.S. Dryer and M. Haspelmath, Leipzig: Max Planck Institute for Evolutionary Anthropology.
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.
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.
Harley, Heidi 2014. 'On the identity of roots', *Theoretical Linguistics*, 40 (3/4): 225-76.
Kramer, Ruth 2014. 'Gender in Amharic: a morphosyntactic approach to natural and grammatical gender', *Language Sciences*, 43.
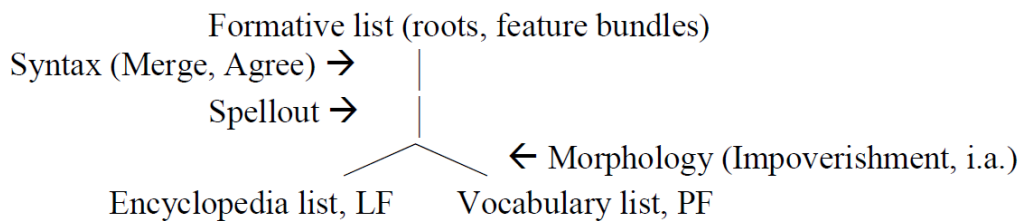Kramer, Ruth 2015. *The Morphosyntax of Gender*, Oxford: Oxford University Press.
Nevins, Andrew 2011. 'Marked Targets versus Marked Triggers and Impoverishment of the Dual', *Linguistic Inquiry*, 42 (3): 413-44.
Parrott, Jeffrey Keith 2015. 'Gender Impoverishment in Czech, Slavic, and beyond', In *Slavic Languages in the Perspective of Formal Grammar: Proceedings of FDSL 10.5, Brno 2014*, eds. M. Ziková, P. Caha and M. Dočekal, Frankfurt am Main: Peter Lang.
Puskar, Zorica 2015. 'Interactions of gender and number agreement: Evidence from Bosnian/Croatian/Serbian', University of Leipzig.
Sudo, Yasutada 2012. On the Semantics of Phi Features on Pronouns, Doctoral thesis, Massachusetts Institute of Technology.

(1) A Minimalist, DM 'Y' model

Formative list (roots, feature bundles)
Syntax (Merge, Agree) →
Spellout →
← Morphology (Impoverishment, i.a.)
Encyclopedia list, LF   Vocabulary list, PF

The Analysis of the Evenki Analytic Negation

Elena Rudnitskaya

Institute of Oriental Studies, Moscow, Russia

`erudnitskaya@gmail.com`

In most varieties of minimalism, adjunction, in particular, right-adjunction, is not defined or even banned, and substituted for other operations, e.g. for Remnant Movement (following (Kayne 1994) – for instance, in the Cartographic approach (Rizzi 2004, 5)), or for concatenation: see (Hornstein, Nunes 2008; Ko 2015), the Bare Phrase Structure framework. However, there are cases, such as extraposition in German (Büring, Hartmann 1995) and postverbal arguments in Japanese or Korean (Cecchetto 2004: 174-175, Ko, Choi 2009) that show connectivity effects which can be better accounted for by right adjunction to TP // CP following movement rightwards than by Remnant Movement or concatenation.

We show that the analysis of the analytic verb negation in Evenki can be couched in the generative framework not only in the (Kayne 1994) head-initial structure, as in (Kaizer 2006) for Finnish, but also using the head-final syntactic tree and movement rightwards followed by right-adjunction. Evenki is a head-final language: it has only postpositions, and the head in a neutral case goes after the complement in most verb-argument and verb analytic constructions. However, information structure factors cause head-initial word order, especially with sentential arguments. (Holmberg 2000, 137), following (Kayne 1994), accounts for the OV – VO variation in Finnish using the Remnant Movement.

This account cannot explain the grammaticalized negative verb construction NEG [FIN] + V [PTCP] in (1), in which NEG is the finite negative auxiliary that **always** precedes the participial V, except for the emphatic "inverted" constructions" (Nedjalkov 1994).

(1)   **ə-ŋkī-n**   **hula-rə**   (Malye jazuki...)
      NEG-PST.ITER-3SG   miss-**PTCP.NEG**

"did not miss" {any wild deer} – meaning 'always made a well-aimed shot at wild deer'

Which problems do these data pose for the (Kayne 1994) approach? Suppose, all the head-final constructions in Evenki were derived via the Remnant Movement. The NEG [FIN] + V [PTCP] construction is head-initial, so no special operations are needed to derive it. Since NEG is finite, it raises to T. Example (2) shows another instance of the negative analytic construction, in which the entire background clause follows NEG. In (2), NEG further moves to the Left Periphery, into the leftmost projection: e.g. PolP, according to (Kaizer 2006), for similar data in Finnish.

(2)   **ə-čə-w**   [bi   jeśo   **alagu-w-ďa-ra**   škola-dū]
      NEG-PST-1SG   1SG   yet   teach-PASS-IPFV-PTCP.NEG   school-DAT
      {when the war started,} "I WAS NOT studying at school yet"   (Malye jazyki…)

However, the subject (*bi*) in an example similar to (2) can precede NEG – that cannot be accounted for if PolP is the highest projection in the clause. There are other data for which the Remnant Movement analysis is not the only possible one and not always explanatory. Evenki, similar to Korean (Ko, Choi 2009; Yun 2013; Yun 2014), has destressed postverbal arguments. In the head-initial construal, the VO order (even with a destressed O) is supposed to be basic, whereas the authors cited show (for Korean) that it is derived. Extending this

account to Evenki, and departing from these and other data, we develop the analysis of the NEG [FIN] – V [PTCP] construction couched in the head-final tree structure and involving right-adjunction after movement rightwards.

Keywords: syntax, right-adjunction, head-final, analytic negation, Evenki

References
Büring, Daniel and Hartmann, Katharine. 1997. "Doing the Right Thing." *The Linguistic Review* 14: 1-42.
http://homepage.univie.ac.at/daniel.buring/phpsite/content/allpapers.html#thing Accessed December 29, 2015.
Cecchetto, Carlo. 2004. "Remnant Movement in the Theory of Phases." In *The structure of CP and IP. The Cartography of Syntactic Structures. Volume 2*, edited by Luigi Rizzi, 166-179. Oxford – New York: Oxford University Press.
Holmberg, Andrew. 2000. "Deriving OV order in Finnish." In *The derivation of VO and OV*, edited by Peter Svenonius, 123-152. Philadelphia–Amsterdam: John Benjamins.
Hornstein, Robert and Jairo Nunes. 2008. "Adjunction, Labelling and Bare Phrase Structure." *Biolinguistics* 2.1: 57–86.
Kaizer, Elsi. 2006. "Negation and the left periphery in Finnish." *Lingua* 116: 314–350.
Kayne, Richard. 1994. *The antisymmetry of syntax*. Cambridge (Mass.): MIT Press.
Ko, Heejeong and Jae-Young Choi. 2009. "Rightward movement and output economy." Manuscript, Seoul National University.
http://ling.snu.ac.kr/ko/publications/Papers/RM_SICOGG11_proceedings finalupload.pdf Accessed December 20, 2015.
Ko, Heejeong. 2015. "Types of Right Dislocation: Copies, Adjuncts, and Fragments in Syntax." Abstact of WAFL-11.
http://ling.snu.ac.kr/ko/publications/abstract/WAFL11_abstract.pdf Accessed December 30, 2015.
"Malye jazyki Sibiri: Naše kul'turnoe nasledie" [Small languages of Siberia: Our cultural legacy] http://siberian-lang.srcc.msu.ru/ Accessed November 30, 2015.
Nedjalkov, Igor. 1994. "Evenki." In *Typological studies in negation*, edited by Peter Kahrel and René van der Berg, 1-34. Philadelphia–Amsterdam: John Benjamins.
Rizzi, Luigi. 2004. "On the Cartofraphy of Syntactic structures." In *The structure of CP and IP. The Cartography of Syntactic Structures. Volume 2*, edited by Luigi Rizzi, 3-15. Oxford – New York: Oxford University Press.
Yun, Suyeon. 2013. "Post-verbal Arguments in Korean: Syntax, Prosody, and Information Structure." Generals paper, MIT.
http://web.mit.edu/suyeon/www/SuyeonYun/Suyeon_Yun_files/YUN_RD1_Generals.pdf Accessed January 5, 2016.
Yun, Suyeon. 2014. "Two Types of Right Dislocation in Korean." *Harward Studies in Korean Linguistics* 15.
http://web.mit.edu/suyeon/www/SuyeonYun/Suyeon_Yun_files/YUN_RD_Harvard.pdf Accessed January 3, 2016.

English Translation Counterparts of the Czech Particles *copak*, *jestlipak*, *kdepak*

Denisa Šebestová

Charles University in Prague, Czech Republic
sebestovadenisa@gmail.com

The paper examines English translation counterparts of Czech sentences containing the particles copak, jestlipak and kdepak. These particles, which share the expressive and intensifying postfix -pak (Dokulil et al. 1986; Komárek et al. 1986), are elements of the third syntactical plan, i. e. "components which place the content of the sentence in relation to the individual and his special ability to perceive, judge and assess" (Poldauf 1964, 242). The third syntactical plan is fully developed in Czech but to a much lesser degree in English. This paper has a twofold aim: a) to identify and describe English means which perform the same communicative functions as Czech sentences containing the -pak particles; b) to further specify the functions of the Czech particles. The data examined come from the fiction core of the parallel corpus InterCorp.

We use the methodology of contrastive analysis, which allows a comparison of meanings that stem from the same notions and serve the same communicative functions but are conveyed by different means in the respective languages, since "linguistic structure is language-specific while the cognitive and functional-communicative substance which constrains it is potentially universal" (Boye 2012, 7; cf. Haspelmath 2010).

Concerning the English correspondences of -pak particles, our study shows a general (cf. Boye 2012) tendency in English to rely on grammatical means of expression, mainly various types of interrogative sentences (Dušková et al. 2012; Biber et al. 1999), where Czech prefers lexical means (particles).

To pursue our second aim, the English counterparts are used as markers of communicative functions of the Czech sentences (Malá 2013). The postfix -pak is shown to be a polyfunctional indicator of communicative function (Grepl, Karlík 1998): the -pak particles have content/speaker-related functions (markers of emotional evaluation and deliberative meaning) as well as communication/addressee-oriented functions (cf. Kranich, Gast 2015). The latter comprise the functions of appeal (Štícha 2013), establishing contact (Karlík, Nekula, Rusínová 2000) and triggering certain pragmatic presuppositions (Hirschová 2013; Levinson 1983).

The data further suggest that where the Czech particles indicate epistemic modality (Komárek et al. 1986) or the communicative functions of objection, reproach, disagreement or expressing surprise (Grepl, Karlík 1998), in English the negative meaning tends to be expressed explicitly (e. g. by negative declarative clauses or introductory negative expressions such as *not at all*).

Keywords: the third syntactical plan, translation correspondences, Czech particles, epistemic modality, means of establishing contact

References

Aijmer, K. 2013. *Understanding Pragmatic Markers. A Variational Pragmatic Approach.* Edinburgh University Press.

Biber, D. et al. 1999. *Longman Grammar of Spoken and Written English.* Harlow: Longman.

Boye, K. 2012. *Epistemic meaning. A crosslinguistic and functional-cognitive study.* Berlin/Boston: De Gruyter Mouton.

Dokulil, M. et al. 1986. *Mluvnice češtiny. 1, Fonetika, fonologie, morfonologie a morfemika, tvoření slov.* Prague: Academia.

Dušková, L. et al. 2012. *Mluvnice současné angličtiny na pozadí češtin*y. Prague: Academia.

Grepl, M., Karlík, P. 1998. *Skladba češtiny.* Olomouc: Votobia.

Haspelmath, M. 2010. "Comparative concepts and descriptive categories in crosslinguistic studies." *Language*, 86:3, pp 663-687.

Hirschová, M. 2013. *Pragmatika v češtině.* Prague: Karolinum.

Karlík, P., M. Nekula, Z. Rusínová (eds). 2000. *Příruční mluvnice češtiny*. Prague: NLN.

Komárek, M. et al. 1986. *Mluvnice češtiny. 2, Tvarosloví.* Prague: Academia.

Kranich, S., V. Gast. 2015. "Explicitness of epistemic modal marking: Recent changes in British and American English." Proceedings of Modality in English IV. Available at http://www.personal.uni-jena.de/~mu65qev/papdf/kranich_gast.pdf

Levinson, S. C. 1983. *Pragmatics.* Cambridge: CUP.

Malá, M. 2013. "Translation counterparts as markers of meaning." *Languages in Contrast* 13:2, 170–192.

Poldauf, I. 1964. "The Third Syntactical Plan." *Travaux linguistiques de Prague 1*, *L΄école de Prague aujourd΄hui:* pp. 241-55.

Štícha, F. et al. 2013. *Akademická gramatika spisovné češtiny*. Prague: Academia.

A V Raising Account of Verb-Initiality in Isbubukun Bunun

Chao-Kai Shih

National Tsing Hua University, Taiwan
`caillet56@hotmail.com`

This paper aims to investigate the derivation of verb-initial word order of *Bunun* with special reference to the *Is(bu)bukun* dialect, spoken in Namasia and Taoyuan in Kaohsiung City, Taiwan. Bunun is one of the most widespread Austronesian languages spoken in Taiwan. It is proposed that the verb-initial word order of this language is attributed to V-to-C movement and [EPP] on T.

There have been proposals for the derivation of verb-initiality from generative perspective. In particular, Wu (2013) proposes that i) the initial predicate is actually a VP/XP, which has been promoted to the specifier of InflP/IP, which is proposed to be merged between TP and *v*P; ii) all the arguments, even the promoted subjects in the NAV context, stay within *v*P; iii) the object undergoes extraction out of the VP and ends up in an intermediate functional projection, namely AgroP, to check its Case feature. However, Wu's analysis fails to capture the following syntactic properties of Isbubukun Bunun: i) the illicit adjacency of the *v*P complement to its restructuring predicate, as in (1a-b); ii) the separation of the indicative negator *ni* and its lexical verb complement, as in (2); iii) the separation of the motion verb and its PP complement, as in (3). In other words, the extraction of the afore-mentioned complements that do not require Case licensing is left unexplained. Moreover, under Wu's analysis, NegP is sandwiched between TP and InflP and thus the word order is predicted to be Fut-Neg-V-S-O only, which is obviously contrary to the fact. A possible solution to this problem would be that VP remains in situ here and object does not raise to [Spec, AgroP]; however, the Case feature on the object would thus fail to be checked and it is unclear how the formal feature on Infl^0 which triggers VP fronting is deleted.

Our arguments for V/X raising analysis are as follows. First, [Spec, TP] may be filled either by the external argument or non-subject DP, as evidenced by the possible positions of the postverbal temporal adjuncts, as in (4). Second, the temporal adjuncts without the topic marker *hai* are disallowed in the preverbal position, which gives evidence that the highest verb or predicate head ends up in a position higher than T. See (5). More specifically, the landing site may be in Fin^0 given that the verb cannot precede the complementizer *tu* (hence not Force^0) and that the verb cannot be followed by the topic phrase (hence not Top^0 or Foc^0). See (6).

This paper proposes the phrase structure for Bunun: [$_{CP}$ **C^0** [$_{TP}$ ___ **T^0$_{[EPP]}$** [$_{vP}$ ___ DP$_{EA}$ ***v*^{0}$_{[EPP]}$** ([$_{ApplP}$ DP$_{AO}$ Appl^0) [$_{VP}$ … V^0 DP$_O$ …]()]]]]. Under Minimalist framework, the derivation is as follows: i) EPP on *v* may attract the internal or applied argument to its edge; ii) [EPP] on T attracts either the external or the internal argument to its specifier; iii) the verb undergoes successive head movement all the way to an empty C^0 (Fin^0).

What is more, the proposed V-to-C movement can account for the verb-initiality in Squliq Atayal (R'uyan dialect) as well, which is also one of the most widespread Austronesian languages spoken in Taiwan. First, the fact that the indicative negator *ini'* can

license the subject NPI *ana ima'* indicates that this negator ends up in CP domain, as in (7a). When the fronting of the negator is blocked by a higher head, say *wal* in Asp^0 or *bali* in C^0, the negator remains in its base position Neg between T and *v*, and thus fails to command the subject NPI; hence the ungrammaticality of (7b) and (7c).

Lastly, a Case parameter is tentatively proposed that V-to-C movement is one of the overt indicators of strong morphological features which determine Case spell-out at PF.

(1) a. **asa**   a   subali=a   **ma-baliv**   mas   iskaan
       AV.want   NOM PN=DET.NOM   AV-buy   OBJ   fish
       'Subali wants to buy fish.'

   b. **asa-un**=ku   a   iskaan=an   **ma-baliv**
       want-PV=1SG.GEN NOM   fish=DET.NOM   AV-buy
       'Subali wants to buy that fish.'

(2) na=**ni**   a   saia   **sipungul-un** ma=zaku
    IRR=NEG   NOM   3SG.NOM   forget-PV   GEN=1SG
    'He will not be forgotten by me.'

(3) kau-dadaza   a   utung=a   **sia**   **lukis**
    AV.go-up   NOM   monkey=DET.NOM   P   tree
    'That monkey went up to a tree.'

(4) kislaupa **(takna)**   a   subali=a   **(takna)**   mas   babu
    AV.stab yesterday   NOM   PN=DET.NOM   yesterday   OBJ   pig
    'Subali stabbed a pig yesterday.'

(5) **takna**   ***(hai,)** kislaupa   a   subali=a   mas   babu
    yesterday TOP   AV.stab   NOM   PN=DET.NOM   OBJ   pig
    'Subali stabbed a pig yesterday.'

(6) m-intatulun   a   subali **tu**   **ma<i>baliv**   mas   ahil=tan
    AV-regret   NOM   PN   COMP AV<EXP>buy   OBJ   book=DET.OBJ
    Subali regrets having bought that book.'

(7) a. **ini'**   rsani   yapit   ni'   yumin **ana** **ima'**
       NEG   bring.CV.NIND   flying.squirrel GEN   PN   any   who
       'Yumin doesn't bring flying squirrels to anyone.'

   b.***wal**   ini   rsani   yapit   ni'   yumin **ana** **ima'**
       PRF   NEG   bring.CV.NIND   flying.squirrel GEN   PN   any   who
       'Yumin didn't bring flying squirrels to anyone.'

   c.***bali**=nya'   (wal) ini'   rsani   yapit   **ana ima'**
       certainly.not=3S.GEN PRF   NEG   bring.LV.NIND   flying.squirrel any one
       'It's certainly not the case that he didn't bring flying squirrels to anyone.'

References

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: a life in language*, edited by M. Kenstowicz, 1–52. Cambridge, Mass.: MIT Press.

Wu, Hsiao-Hung Iris. 2013. "Verb Initial Order as Predicate Fronting in Isbukun Bunun." *Language and Linguistics* 14 (3): 571–598.

Mirativity and Focus in DP

Masaharu Shimada and Akiko Nagano

University of Tsukuba, Tsukuba, Japan; Tohoku University, Sendai, Japan
`shimada.masaharu.fu@u.tsukuba.ac.jp; tmg0002as@gmail.com`

With the notion of Mirativity, we often refer to an utterance which expresses the speaker's emotion of surprise, conveying new information unexpected to the speaker. Spanish verbless predicative clauses discussed by Gutiérrez-Rexach and González-Rivera (2014, 102-103), exemplified in (1), can be characterized as bearing a mirative interpretation.

(1)   *[Extremadamente caro]*_{AP},   *aquel vino*.

        'Extremely expensive, that wine.'

(1) contrasts with a usual predicative sentence in (2) in that a *be*-verb is dropped and the adjective is preposed in (1), and that the predicate in (1) has an evaluative/affective interpretation followed by a topic DP and constitutes a new information focus:

(2)   *Aquel vino ES extremadamente caro*

        'That wine is extremely expensive.'

Within a framework of generative linguistics, Cruschina (2011, 105) structurally distinguishes contrastive focus, CFoc, and information focus, IFoc. CFoc and IFoc occupy different positions, as illustrated in (3):

(3)   CFocP{*CFoc*}… TopP … IFocP{*Wh/IFoc*} … FinP

Cruschina argues that fronting to the IFoc position is a necessary condition to derive a Mirative interpretation in Sicilian. This fronting is called mirative fronting. Adopting Cruschina's idea, we can analyze (1) in such a way that the verbless adjectival phrase *extremadamente caro* 'extremely expensive' is fronted to the spec position of IFocP.

 In the tradition of generative linguistics, the parallelism between clausal structures and nominal structures has been studied. It has been argued, for example, that CP and DP share the same internal structures, and that the same syntactic operation as movement can occur within them. As summarized in Abor et al. (2010), their parallelism holds in terms of information structure as well. Both CP and DP have topic and focus projections within them.

 If the mirative fronting analysis for clausal structures is on the right track, we predict that the mirative fronting can be observed in nominal structures as well. Based on the data on prenominal modification in Japanese, this paper will show that this is indeed the case, and that CFoc and IFoc positions can arise in DP.

 We treat such a Japanese example of prenominal modification as (4):

(4)   [_{DP} [_{Rel} pro₁ *taka-i*]   *wain*₁]]

                pro expensive-Cop wine   'expensive wine'

In (4), the noun *wain* 'wine' is modified by the relative clause containing the adjective *taka-i* 'expensive.' The unmarked interpretation in (4) is just a normal adjectival modification. Interestingly, as observed in traditional Japanese linguistics, (4) can have another interpretation with a different intonation. In the unmarked interpretation, *taka-i* 'expensive' and *wain* 'wine' are pronounced with their original accents kept. In the other interpretation, the expression is pronounced starting with the low tone and ending up with the rising

intonation. In the latter case, (4) can express the speaker's surprise of the expensiveness of the bottle of wine in front of her. This is just the mirative interpretation.

This duality of the modificational construction in Japanese can be explained if DP has an IFoc position above the normal modifier position and the mirative interpretation is derived as a result of the (vacuous) fronting of the relative modifier [pro *taka-i*] 'expensive' to the IFoc position within DP.

(5) $[_{DP} [_{IFoc} [_{Rel} \text{pro}_1 \textit{taka-i}]_2] \text{t}_2 \textit{wain}_1]]$

Interestingly, when the modified noun conveys old information with a mirative reading of the whole phrase, it precedes the adjectival modifier, attached with the nominal affix *-sa*, as shown in (6):

(6)   *kono wain no   taka-sa!*
       this   wine Gen expensive-Af wine   'expensive wine!'

This paper pursues the possibility that (6) is also derived from the structure in (3). The modifiee *kono wain* 'this wine' is fronted over the modifier into the TopP position, changing the inflectional ending of the adjective form *-i* to *-sa*.

Aboh et al. (2010) give several examples in which contrastive focus, that is, CFoc, is involved in DP. Also, the contrastive interpretation of the *SALAD salad* expression observed by Ghomeshi, Jackendoff, Rosen and Russell (2004) may be attributed to CFoc in DP. In contrast, according to Aboh et al. (2010)'s summary, there seem to be not so many phenomena suggesting the existence of information focus, that is, IFoc, in nominal structures. The nominal modification with the mirative interpretation in Japanese provides new evidence for IFoc in DP.

Keywords: adjectives; cartography; fronting; Japanese

References

Aboh, Enoch O., Norbert Corver, Marina Dyakonova and Marjo van Koppen. 2010. "DP-internal Information Structure: Some Introductory Remarks. " *Lingua* 120: 782-801.

Cruschina, Silvio. 2011. *Discourse-Related Features and Functional Projections.* Oxford: OUP.

Gghomeshi, Jila, Ray Jackendoff, Nicole Rosen and Kevin Russell. 2004. "Contrastive Focus Reduplication in English." *Natural Language & Linguistic Theory* 22: 307–357.

Gutiérrez-Rexach, Javier and Melvin González-Rivera (2014) "Spanish Predicative Verbless Clauses and the Left Periphery." In *Left sentence peripheries in Spanish*, edited by Andreas Dufter and Álvaro S. Octavio de Toledo. 101-124. Amsterdam, John Benjamins.

Emotions Translated: Enhancing a Subjectivity Lexicon Using a Parallel Valency Lexicon

Jana Šindlerová and Aleš Tamchyna

Charles University, Prague, Czech Republic

`sindlerova@ufal.mff.cuni.cz; tamchyna@ufal.mff.cuni.cz`

Subjectivity lexicons collect words determining evaluative character of a text. For a good analysis of evaluative features in texts, we need reliable and exhaustive resources. So far, the resources existing for Czech are usable, but far from perfect. In this paper, we present an attempt to enhance a Czech subjectivity lexicon using a parallel valency lexicon.

The Czech Sublex (Veselovská 2013) is a lexical resource for Sentiment Analysis tasks. Basically, it provides subjectivity clues, i. e., positive and negative evaluative words. The Czech Sublex was obtained by automatic translation of a freely available English subjectivity lexicon (Wilson et al. 2005); the automatic translation was carried out using a parallel treebank CzEng.1.0 (Bojar and Žabokrtský 2006) and the lexicon was cleaned manually then. The version of Czech Sublex we use in our study includes 4625 evaluative expressions, of which 1549 are verbs.

For enlarging the range of verbs included in the Czech Sublex, we explore (automatically) the bilingual valency lexicon CzEngVallex 1.0 (Urešová et al. 2015). Since verbs commonly constitute the heart of the evaluative state expressed in a sentence, the advantages of using the CzEngVallex for enhancing the Sublex data are the following:

a) CzEngVallex covers a reasonable amount of verbal vocabulary used in media discourse and provides reliable and structured information about valency participants of the verbs (the participants usually correspond to the roles of the Source and Target of the evaluation);
b) the individual verb senses are structured as separate units, allowing us thus to differentiate between emotional and non-emotional meanings of the same lexical unit;
c) the lexicon is interconnected with a sentence-aligned parallel treebank, the Prague Czech English Dependency Treebank, allowing us thus to check immediately the relevance of the outcome.

Exploration of the Czengvallex produced 1166 Czech verb translations unmet in the previous version of the Czech Sublex, which correspond to 578 unique lemmas. Such a number was unexpected considering the fact that the original Czech Sublex, containing 1549 verbs, was built on substantially larger parallel treebank data. The reasons probably lie in the following:

a) the new verbs represent a "raw" outcome and, as it appears, manual clean-up is needed;
b) many aspect counterparts and prepositional variants to other verbs in Sublex are included.

In the paper we present an analysis of the newly acquired verbs and comment on their validity considering evaluative meaning. Mainly, the question of the relation between evaluative meaning and inherently positive/negative semantics is discussed. Also, we make general statements about the distribution of Source and Target roles between the individual verb frame participants and about the propagation of negative or positive meaning to the individual evaluative roles.

Keywords: parallel treebank; bilingual valency lexicon; subjectivity; evaluative meaning

References

Bojar, Ondřej, and Zdeněk Žabokrtský. 2006. "CzEng: Czech-English Parallel Corpus release version 0.5" *Prague Bulletin of Mathematical Linguistics 86:* 59–62 .

Urešová, Zdeňka, Ondřej Dušek, Eva Fučíková, Jan Hajič, and Jana Šindlerová. 2015. "Bilingual English-Czech Valency Lexicon Linked to a Parallel Corpus." In *Proceedings of the 9th Linguistic Annotation Workshop (LAW IX 2015).* Association for Computational Linguistics.

Veselovská, Kateřina. 2013. "Czech Subjectivity Lexicon: A Lexical Resource for Czech Polarity Classification. In *Proceedings of the Seventh International Conference Slovko 2013; Natural Language Processing, Corpus Linguistics, E-learning.* 279–284. Lüdenscheid, Germany: RAM-Verlag.

Wilson, Theresa, Janyce Wiebe, and Paul Hoffmann. 2005. "Recognizing Contextual Polarity in Phrase-Level Sentiment Analysis." In *Proceedings of the Conference on Human Language Technology and Empirical Methods in Natural Language Processing*, 347–354. Association for Computational Linguistics.

Imageability and Past Tense: Imageability Effects Are Not Limited to Irregular Verbs

Filip Smolík

Institute of Psychology, Czech Academy of Sciences, Prague

`smolik@praha.psu.cas.cz`

Imageability is the extent to which a word elicits internal sensory image of its referent. It is known to affect various aspects of word processing and acquisition. Recent research also suggested that imageability of words facilitates the processing and acquisition of inflected forms in these words. Highly imageable irregular verbs are processed faster than less imageable ones; this relation is weaker or absent in regular verbs (Prado & Ullman, 2009; Dye et al., 2013). Plural forms of highly imageable nouns appear in children's language earlier than plurals of less imageable words, even after controlling for frequency and word age of acquisition (Smolík, 2014). The contribution presents two studies that examined the effects of imagebility to further evaluate its relation to morphological processing and acquisition.

One study examined the data from the Past Tense Inflection Project (Cohen-Shikora et al., 2013). This includes data on production times for 2200 English verbs in the speeded past tense generation task, as well as ratings of imageability and other variables. The initial analysis revealed that imageability is related to faster past tense production in adults (Cohen-Shikora et al., 2013). The present analysis demonstrates that this relation is complex. There is a three-way interaction so that the effect is strongest in irregular verbs with low frequency. However, even in regular verbs, some effect of imageability can be found.

The second study examined acquisition data from the Manchester corpus of child English. Survival analysis of first usages of past tense, controlling for input frequency and age of acquisition of the uninflected form, revealed that past tense forms appear earlier in highly imageable verbs than in less imageable ones. However, this effect was only present in regular verbs and interacted with frequency. The effects of imageability were only present in words with higher frequency. This is the opposite effect of frequency than observed for past tense generation in adults. It points out that even though imageability affects both morphological acquisition and production, the exact mechanisms in each of these domains are different.

Overall, the findings indicate that semantic properties of words affect the acquisition of grammatical morphology in these words. Unlike the previous research findings on adult production (Prado & Ullman, 2009), the current results show that the effects are not limited to irregular verbs. This poses questions about the mechanism of the effect. It is suggested that the effect is due to facilitative effects of imageability in working memory, rather than long-term memory retrieval of stems.

Keywords. Imageability, past tense, grammatical development, psycholinguistics, morphology.

Figure 1: Model predictions for the relation between response time in the past tense generation task (Study I using the Past tense inflection project data). Predictors are verb regularity, imageability and frequency (TLFRQ).
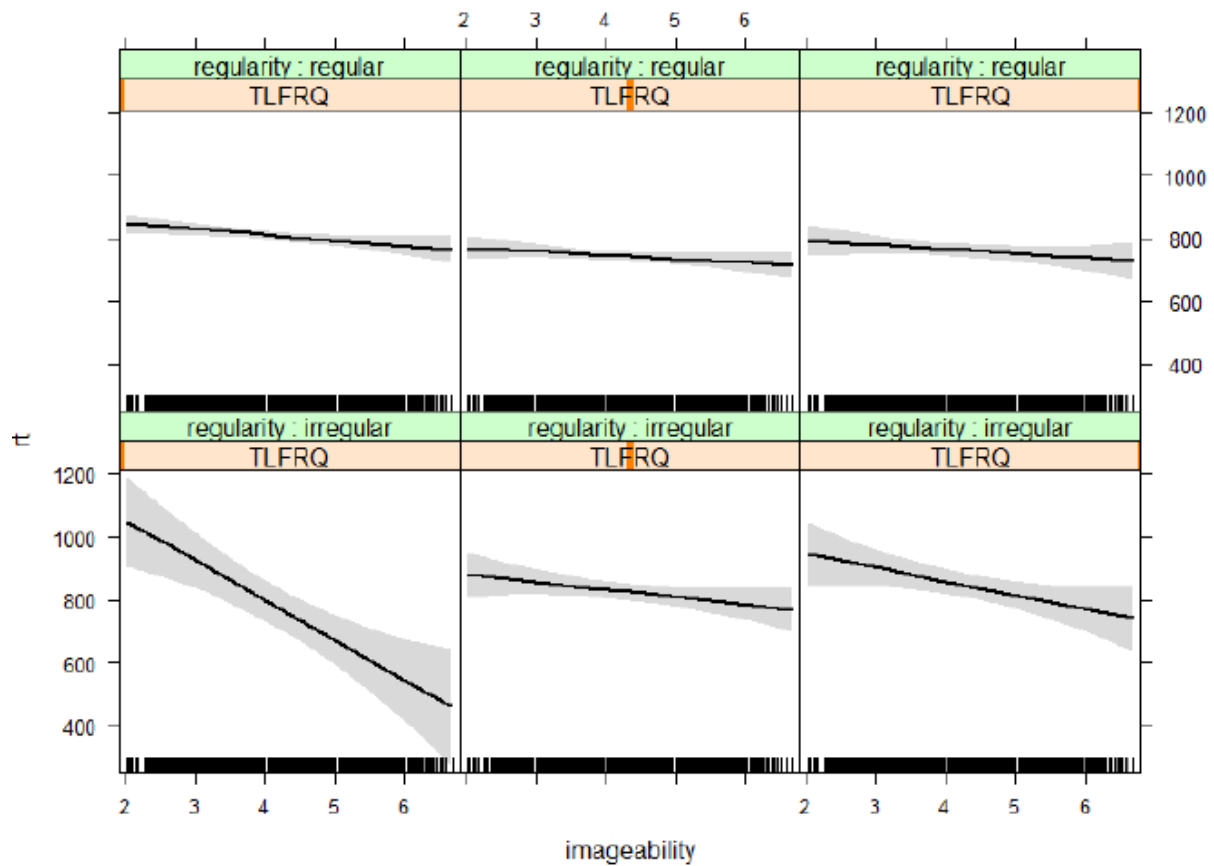
References

Cohen-Shikora, R., Balota, D. A., Kapuria, A., Yap, M. J. 2013. The past tense inflection project (PTIP): speeded past tense inflections, imageability ratings, and past tense consistency measures for 2,200 verbs. Behavior Research Methods 45, 151–159.

Dye, C. D., Walenski, M., Prado, E. L., Mostofsky, S., & Ullman, M. T. 2013. Children's computation of complex linguistic forms: A study of frequency and imageability effects. PloS one, 8(9), e74683.

Prado, E. L., Ullman, M. T. 2009. Can imageability help us draw the line between storage and composition? Journal of Experimental Psychology: Learning, Memory, and Cognition 35, 849–866.

Smolík, F. 2014. Noun imageability facilitates the acquisition of plurals: survival analysis of plural emergence in children. Journal of Psycholinguistic Research, 43, 335-350.

Grammar or Social Understanding? Both Mental State Language and Grammatical Skills Predict Children's Use of Personal Pronouns and Verb Inflections

Filip Smolík and Veronika Bláhová

Institute of Psychology, Czech Academy of Sciences, Prague

`smolik@praha.psu.cas.cz; blahova@praha.psu.cas.cz`

The emergence of personal pronouns has been considered as a sign of emerging social understanding and self-other differentiation (e. g. Courage, Edison, & Howe, 2004; Lewis & Ramsay, 2004). However, personal pronouns are also linguistically complex words with strong grammatical roles. It is thus a question whether the initial use of personal pronouns in children marks advances in social understanding, or whether it reflects linguistic, especially grammatical development. The same question may be asked for other devices of person reference, such as conjugated verb forms in languages that inflect verbs for person. The present study addressed these questions by examining the relation between early use of first and second person pronouns, verb inflections, mental state language (MSL), and general linguistic development in a group of children acquiring Czech.

Language samples of 58 children aged 29 to 31 months were analyzed. The samples were recorded when children played with their mothers during a lab visit. In addition, lexical and grammatical comprehension tests were administered, a short picture-vocabulary task, and an experimental task based on TROG (Bishop, 2003). Language samples were searched for all occurrences of words from three lists. 8 forms of the first person pronouns, 8 of the second person pronouns, 37 different words referring to mental states, which included references to sensory perception, emotions, desires, and cognitive states. In addition, number of occurrences of all first-and second-person present tense forms of verbs were counted.

Regression analyses used the number of occurrences of first and second person pronouns as the dependent variable. The predictors were the mean length of utterance (MLU) and the number of mental state language (MSL) tokens. The effect was significant for both MLU (β=0.36, p =0.003) and MSL (β=0.36, p=0.002), suggesting that each predictor has a unique contribution to the prediction of personal pronoun use. To ensure robustness against outliers and distributional assumption violations, the analysis was repeated using ordinal regression treating the dependent variable as an ordinal scale. This confirmed the concurrent significant effects of MSL (p=0.022) and MLU (p< 0.001). The use of verb conjugation for person reference showed similar relations to MSL and MLU as pronouns, with both language complexity and mental state language having independent effects on person reference.

The results confirm that children's references to persons using pronouns and verb forms are related both to language development and to the development of social understanding. This validates previous research relying parental report data (Markova & Smolík, 2014). Second person verb forms are especially strongly related to social understanding. At the same time, there is always a clear relation to measures of grammatical development. Studies using person reference to assess social understanding in children should always take into account the overall linguistic development.

Table 1: Descriptive statistics for the key variables

	M	SD	min	max
MLU	1.97	0.53	1	3.07
Pronoun tokens (1st and 2nd person)	2.71	3.64	0	19
Verb tokens (1st and 2nd person)	12.42	9.79	0	46
Grammar comprehension (TROG)	9.89	3.82	3	19
Lexical comprehension (picture vocabulary)	17.54	4.42	9	27

Table 2: Correlations between the key variables

	MLU	Pron.	Verb.	TROG
Pronoun tokens (1st and 2nd person)	0.51			
Verb tokens (1st and 2nd person)	0.58	0.81		
Grammar comprehension (TROG)	0.53	0.33	0.42	
Lexical comprehension	0.16	0.27	0.25	0.63

References

Bishop, D. V. M. (2003). Test for reception of grammar, version 2 (TROG 2). London. Pearson Assessment.

Courage, M. L., Edison, S. C., & Howe, M. L. (2004). Variability in the early development of visual self-recognition. Infant Behavior and Development, 27, 509–532.

Lewis, M., & Ramsay, D. (2004). Development of self-recognition, personal pronoun use, and pretend play during the 2nd year. Child Development, 75, 1821–1831.

Markova, G., & Smolík, F. (2014). What do you think? The relationship between person reference and communication about the mind in toddlers. Social Development, 23, 61–79.

Metaphors, Metonymies, and Blends in English–Hungarian Equivalents of an Online ICT Glossary

Réka Sólyom

Károli Gáspár University of the Reformed Church in Hungary, Faculty of Humanities, Department of Hungarian Linguistics, Budapest, Hungary

`solyomreka@hotmail.com, solyom.reka@kre.hu`

The paper focuses on the semantic features of Hungarian and English ICT (Information and Communication Technology) words in a functional-cognitive framework.

The corpus of the analysis is given by the Hungarian and English words and phrases of an online ICT glossary compiled in Hungarobox Learning Partnership (a Grundtvig Lifelong Learning Programme) (www.hungarobox.eu), containing 365 items for learners at levels B1–B2 in six languages (English, Estonian, Finnish, German, Hungarian, Italian), and additional sample sentences and exercises. As a member of one of the groups who compiled the glossary, the author has experiences in elaborating the lists of English and Hungarian words and phrases as well as testing the translations and the related exercises with university students in different countries.

During compiling the glossary and during testing, it has become clear that various processes concerning meaning construal and understanding govern and can lead to the successful existence and usage of technical terms, among which many neologisms occur in the case of ICT language (e.g. *beteggel/betaggel*: 'tag in', *felhő*: 'cloud', *szörföl*: 'surf the internet'). Therefore, with the help of words and sample sentences from the corpus, the analysis concentrates on the following questions: 1) What kind of metaphorical and metonymical processes can be witnessed in the field of Hungarian ICT words? 2) What kind of semantic similarities and differences can be proved between the Hungarian and English equivalents? 3) How can these metaphorical and metonymical processes of meaning construal can help language users understand and use ICT words? 4) Are there any traces for other mental processes (e.g. blending) that can lead to more complex semantic systems within the analysed field? Referring to related researches on the ICT field (cf. Meyer–Zaluski–Mackintosh–Foz 1998, Izwaini 2003), the study gives an insight into the semantic characteristics, matchings and differences of the analysed English–Hungarian equivalents.

The analysis is based on a functional-cognitive approach, and it argues for the importance of metonymical (cf. Kövecses–Radden 1998) and metaphorical (cf. Lakoff–Johnson 1980, Kövecses 2015) features and relations (Dirven 2003) in the case of many items in the glossary. It claims, too, that being creative while using neologisms (cf. Benczes 2010, Sólyom 2013, 2014), these features can help build various mental spaces (Fauconnier 1994 [1985]) and may lead to conceptual integration (blending) (Fauconnier–Turner 1998) in order to make human understanding and language use more plausible and effective.

Keywords: ICT language, metaphor, metonymy, blending, neologism

References

Benczes, Réka. 2010. "Setting limits on creativity in the production and use of metaphorical and metonymical compounds." In *Cognitive Perspectives on Word Formation*, edited by Alexander Onysko and Sasha Michel, 219–42. Berlin – New York: Mouton de Gruyter.

Dirven, René. 2003. "Metonymy and metaphor: different mental strategies of conceptualisation." In *Metaphor and Metonymy in Comparison and Contrast*, edited by René Dirven and Ralf Pörings, 75–111. Berlin – New York: Mouton de Gruyter.

Fauconnier, Gilles. 1994 [1985]. *Mental Spaces.* Cambridge: MIT Press – Cambridge University Press.

Fauconnier, Gilles, and Mark Turner. 1998. "Conceptual Integration Networks." *Cognitive Science* 22 (2): 133–87.

Izwaini, Sattar. 2003. "A corpus-based study of metaphor in information technology." In *Proceedings of the Interdisciplinary Workshop on Corpus-Based Approaches to Figurative Language held in conjunction with the Corpus Linguistics 2003 conference UCREL technical paper number 18,* edited by John Barnden, Sheila Glasbey, Mark Lee, Katja Markert and Alan Wallington, 1–8. Lancaster: UCREL, Lancaster University.

Kövecses, Zoltán. 2015. *Where Metaphors Come from: Reconsidering Context and Metaphor.* Oxford: Oxford University Press.

Kövecses, Zoltán, and Günther Radden. 1998. "Metonymy: Developing a cognitive linguistic view." *Cognitive Linguistics* 9 (1): 37–77.

Lakoff, George, and Mark Johnson. 1980. *Metaphors we live by.* Chicago – London: The University of Chicago Press.

Meyer, Ingrid, Victoria Zaluski, Kristen Mackintosh, and Clara Foz. 1998. "Metaphorical Internet Terms in English and French." In *Euralex'98 Proceedings,* vol. II., edited by Thierry Fontenelle, Philippe Hiligsmann, Archibald Michiels, André Moulin and Siegfried Theissen, 523–31. Liège: University of Liège, English and Dutch Departments.

Sólyom, Réka. 2013. "A study of forum texts: semantic and stylistic analyses of Hungarian neologisms." *Studia Linguistica Hungarica (Formerly Annales Sectio Linguistica). The Linguistic Journal of the Faculty of Humanities, Eötvös Loránd University, Department of Modern Hungarian Linguistics* 28: 149–65.

Sólyom, Réka. 2014. "Semantic Features of Hungarian Neologisms With the Prefix *Be*: Analysis of Some Frequently Used Verbs (e.g., *bevállal)." AHEA – Hungarian Cultural Studies. E-Journal of the American Hungarian Educators Association* 7: 358–73. http://ahea.pitt.edu/ojs/index.php/ahea/article/view/148/129

www.hungarobox.eu

A Sociolinguistic Study of Hybrid Language Practices, Attitudes towards Language and the Role of Language in Identity Formation of Latina Students at a Public University in Los Angeles

Eva Švejdarová

ŠKODA AUTO University, Mladá Boleslav, Czech Republic

`svejdarova@is.savs.cz`

This paper is based on data collected as part of a larger sociolinguistic study focused on hybrid language practices, attitudes towards language and the role of language in the formation of identity among Latina students in Los Angeles, California, United States. Mixed methods with a special focus on qualitative methodologies of sociolinguistic research were employed to examine attitudes and preferences towards language use and the impact on identity formation among 72 Latina students. In particular, five students were selected and monitored irregularly for nearly seven years to answer the following research question – "How did these five key participants use language to negotiate their identities?" Qualitative methods of data collection were used in order to investigate those informants' language attitudes towards the use of English, Spanish and hybrid language practices such as code-switching. The longitude of the study provided fruitful data that added a very important dimension to the research, reflecting not only the myriad of identities assumed by one person, but also the extent to which human beings are able to shift opinions over time.

Issues surrounding ethnic and social identity as well as language choice were the bases for the questionnaires used. The negotiation of language choice and practice, while at the same time exploring the meanings and attitudes towards those linguistic choices, were discussed with the five key Latina participants using interviews, audiotaped conversations, as well as participant observations. Data for this particular study were selected on base of frequency of appearance that was based on coding.

As the language constitutes a central feature of human identity, when we hear someone speak, we immediately make assumptions about gender, education level, age, profession, and place of origin. Beyond this individual matter, a language is a powerful symbol of national and ethnic identity (Spolsky 1999, 181). Appel and Muysken (1987) point out the fact that languages are not only objective, socially neutral instruments for conveying meaning, but are linked with the identities of social or ethnic groups has consequences for the social evaluation of, and the attitudes towards languages (Appel and Muysken 1987, 16).

One of the salient themes of the investigation proved to be the interaction between English and Spanish, of which the result is a linguistic phenomenon called Spanglish1. The study proves that most of the Latina university students that took part in this investigation had a positive attitude toward the use of Spanglish, of which such finding might prove very important for Latino/a students. If Latina bilinguals maintain the same level of consciousness

---

1 In the study, as well as in the questionnaires, the term Spanglish is used to embrace the complex continuum of language situations and is used as a common denominator for the interaction between English and Spanish language.

relative to language practice and choice, they can then influence others' behavior and attitude toward them by deliberately changing their language choice.

To conclude, using the voices of the participants, this case study uncovered important factors contributing to the relationship between language and identity as they relate to Latina students, as well as exposed the language ideology (Kroskrity in Duranti 2004, 497) behind such processes.

Keywords: hybrid language practices, language attitudes, identity, Latina, qualitative research

References
Appel, Rene, and Pieter Muysken. 1987. *Language contact and bilingualism.* London: Edward Arnold Publishers.
Kroskrity, Paul. V. 2004. "Language Ideologies." In *Companion to Linguistic Anthropology,* edited by Alessandro Duranti. Malden, MA: Blackwell Publishing Ltd.
Marecek, Jeanne, Michelle Fine, and Louise Kidder. 1997. "Working between worlds: Qualitative methods and social psychology." *Journal of Social Issues* 53 (4): 631-644.
Maton, Kenneth. I., Freeman A. Hrabowski, and Geoffrey L. Greif, 1998. "Preparing the Way: A Qualitative Study of High-Achieving African American Males and the Role of the Family." *American Journal of Community Psychology* 26 (4): 639-668.
Spolsky, Bernard. 1999. "Second-language learning." In *Handbook of Language & Ethnic Identity,* edited by Joshua A. Fishman, 181-192. Oxford: Oxford University Press.

Stance and "Saying" Routines in Expert-Lay Communication

Magdalena Szczyrbak

Institute of English Studies, Jagiellonian University

`magdalena.szczyrbak@uj.edu.pl`

The verb *say*, it can be argued, is one of the stancetaking resources which interactants have at their disposal during high-stake confrontational encounters. Even more so, given that apart from its core meaning of pronouncing words or sounds and expressing a thought or opinion, *say*, whose stancetaking status might not be immediately evident, perspectivises the information provided by speakers or, put differently, indicates speakers' claim to epistemic priority (cf. Clift 2006). As such, it also plays a role in formulating legal narratives and, consequently, in constructing evidence in legal-lay communication.

Drawing on stance research (du Bois 2007) as well as analyses exploring the pragmatics of *say* (Craig and Sanusi 2000; Brinton 2008; Holt and Johnson 2010; Johnson 2014), the current study examines the patterns of use involving *say* in 30 FBI/police interview transcripts (totalling 271,544 words) from a homicide investigation. The aim of the analysis was threefold: 1/ to determine the frequencies of selected *say* forms (e.g. *like I say/said, you know what I'm saying, when you say, and you say*); 2/ to explore the speaker-form correlation, i.e. to establish how legal professionals (police officers/FBI detectives) and laypersons (witnesses) deploy *say* in interaction and, finally, 3/ to examine the stancetaking potential of selected *say* forms, including their role in shifting standpoints, challenging standpoints, reconstructing reality and marking standpoint continuity.

In what was conceived as a corpus-assisted discourse study (Partington et al. 2013), the Concord function of WordSmith Tools was applied to determine the frequencies of selected *say* realisations. During the qualitative stage of the analysis, in turn, individual instances of *say* were analysed manually to determine their distribution across turns of talk. The investigation showed that individual *say* realisations are used to mark shifts in discourse perspective as well as for intersubjective positioning. It was also discovered that pragmatic *say* can be linked to the enactment of power and discourse control (e.g. *and you say, when you say*) or to the speaker's low power and uncertainty (e.g. *you know what I'm saying*). Overall, the study revealed that rather than use *say* as a "neutral" communication verb, the interview participants use *I*- and *you*-oriented *say* forms to point to the source of information, enabling "hearers to interpret the status of information with respect to some person's epistemological assessment of it" (Mushin 2001, 34), i.e. to express epistemological stance.

Keywords: police interviews, *say*-markers, stance

References

Brinton, Laurel J. 2008. *The Comment Clause in English: Syntactic Origins and Pragmatic Development*. Cambridge: Cambridge University Press.

Clift, Rebecca. 2006. "Indexing Stance: Reported Speech as an Interactional Evidential." *Journal of Sociolinguistics* 10 (5): 569–595.

Craig, Robert T., Alena L. Sanusi. 2000. ""I'm just saying…": Discourse Markers of Standpoint Continuity." *Argumentation* 14: 425–445.

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.

Holt, Elizabeth and Alison Johnson. 2010. '"Socio-pragmatic Aspects of Legal Talk: Police Interviews and Trial discourse," In *The Routledge Handbook of Forensic Linguistics,* edited by Malcolm Coulthard and Alison Johnson, 21–36. London, New York: Routledge.

Johnson, Alison. 2014. "Legal Discourse: Processes of Making Evidence in Specialised Legal Corpora." In *Pragmatics of Discourse*, Handbooks of Pragmatics, 3, edited by Klaus P. Schneider and Anne Barron, 525–554. Berlin, New York: De Gruyter Mouton.

Mushin, Ilana. 2001. *Evidentiality and Epistemological Stance. Narrative Retelling.* Amsterdam, Philadelphia: John Benjamins.

Partington, Alan, Alison Duguid, and Charlotte Taylor. 2013. *Patterns and Meanings in Discourse. Theory and Practice in Corpus-assisted Discourse Studies (CADS).* Amsterdam, Philadelphia: John Benjamins.

Definiteness Agreement in Hungarian Multiple Infinitival Constructions

Krisztina Szécsényi[1] and Tibor Szécsényi[2]

[1]Eötvös Loránd University
[1]Research Institute for Linguistics of the Hungarian Academy of Sciences
[2]University of Szeged

[1]`kszecsenyi@gmail.com;` [2]`szecsenyi@hung.u-szeged.hu`

As observed among others by É. Kiss (1989, 2002), Hungarian verbs show what is called definiteness agreement with the object: if the object is definite, it is the definite conjugation of the verb that appears, and we have indefinite conjugation when the object is indefinite.

When an infinitive takes a definite or indefinite object there is no difference in the verb forms. In certain well definable cases the finite verb taking the infinitival clause as its argument shows definiteness agreement with the object of the infinitive. These data are usually accounted for by assuming clause union (Den Dikken 2004) or Long Distance Agreement (LDA) taking place between the finite verb and the object of the infinitive (É. Kiss 2002). Both approaches assume that agreement is between the finite verb and the object DP. When the infinitive has no object the finite verb selecting the infinitive shows the indefinite agreement pattern.

Our research question concerns the exact nature of agreement: its trigger and what exactly agrees with what. We cannot say that agreement depends on the argument structure of verbs: it is not only verbs also taking DP objects that can agree. Agreement does not exclusively depend on the presence of a definite object either: there are verbs that fail to agree with it. The data in (1) can shed some light on the agreement patterns observed. In (1ab) containing *akar* 'want', a verb that also shows definiteness agreement when finite, the verb *fog* 'will' also shows agreement for definiteness. In (1cd) the verb *fél* 'be afraid' is one not showing definiteness agreement. As a result, *fog* 'will' cannot show definiteness agreement with the object of the infinitive embedded into the non-agreeing infinitival clause either.

(1)   a. Péter fog/*fogja   akarni nézni   egy filmet.
          Peter will.INDEF/will.DEF to.want to.watch a   film.ACC
          'Peter will want to watch a film.'
     b. Péter *fog/fogja   akarni nézni   a   filmet.
          Peter will.INDEF/will.DEF to.want to.watch the film.ACC
          'Peter will want to watch the film.'
     c. Péter fog/*fogja   félni   nézni   egy filmet.
          Peter will.INDEF/will.DEF to.be.afraid to.watch a   film.ACC
          'Peter will be afraid to watch a film.'
     d. Péter fog/*fogja   félni   nézni   a   filmet.
          Peter will.INDEF/will.DEF to.be.afraid to.watch the film.ACC
          'Peter will be afraid to watch the film.'

These data indicate that agreement is not the result of LDA between the finite verb and the object of the infinitive, and clause union does not necessarily have to be assumed either (at least in order to account for agreement). Definiteness agreement seems to have a cyclic nature: the type of the infinitive also has an effect on the availability of definiteness agreement in the main clause. Our conclusion is that the infinitive also agrees with the object

covertly, and that the verb selecting the infinitive agrees not with the object itself, but with the definiteness feature of the infinitive selecting it, if the infinitive has one. When the infinitive lacks such a definiteness feature (like in the case of *fél* 'be afraid') the result is default indefinite agreement. This proposal also accounts for those patterns where the infinitive has no object: it can be argued to have a default indefinite feature, this is what the agreeing finite verb agrees with. The implementation of this difference can be a feature-based analysis operating with default features, or, following Bartos (1999), a structural difference between definite and indefinite constituents can be assumed.

Keywords: Hungarian, infinitive, object agreement, definiteness

References

Bartos, Huba 1999. *Morfoszintaxis és interpretáció: A Magyar inflexiós jelenségek szintaktikai háttere*. PhD Dissertation. Budapest: ELTE.

Den Dikken, Marcel 2004. Agreement and 'clause union'. In Katalin É. Kiss – Henk van Riemsdijk (eds.) *Verb Clusters. A study of Hungarian, German and Dutch*. Amsterdam: John Benjamins. 445–498.

É. Kiss, Katalin 1989. Egy főnévi igeneves szerkezetről. *Általános Nyelvészeti Tanulmányok* **17**: 153–169.

É. Kiss, Katalin 2004. *The Syntax of Hungarian*. Cambridge. Cambridge University Press.

On the New Expression *Bucuo V* in Taiwan Mandarin and Its Implications for Rule Borrowing

Jen Ting

National Taiwan Normal University, Taipei, Taiwan
`ting@ntnu.edu.tw`

Contact-induced structural change has long been an area of heated debate in contact linguistics. It is traditionally assumed (e.g., Lass 1980) that language change is caused by internal evolution and thus rule-governed and regular. Under this assumption, systematic changes induced by language contact are unexpected because externally-motivated changes would be unpredictable (Poplack & Levey 2010). Even if one adopts the view that contact-induced change may affect the structural (e.g., morphological and syntactic) domains, whether such change comes about as an indirect consequence of lexical borrowing (King 2000, Sankoff 2002) or results from application of morphosyntactic rules (Thomason 2006, forthcoming) or mechanisms (e.g. Harris & Campbell 1995) remains unsettled. In this talk, we use the new expression *bucuo* V 'good to V' in Taiwan Mandarin discussed in Tseng (2003), Kao (2008), Lien (2008), and Cheng (2014), illustrated in (1), as a case study to show that it serves as an instance of rule borrowing, thus in support of direct involvement of morphosyntactic rules in contact-induced change.

(1) a. Zhege   xingren bing <u>bucuo chi</u>.
       this.CL almond cake good eat
       'This almond cake tastes good.' (Tseng 2003:105)
   b. Zhengbu dianying zhende shi hen <u>bucuo kan</u>.
      whole.CL movie   really   SHI very good see
      'The whole movie is indeed really very good to see.' (Tseng 2003:105)
   c. Zheben shu kanqilai   <u>bucuo du</u>. (Kao 2008:224)
      this.CL book read.QILAI good read
      'This book appears to be fun to read.'

We first show that the *bucuo* V 'good to V' sequence is a word and is not generated in the syntax proper. Then we demonstrate that the morphological structure of *bucuo*-V 'good to V' is unique for the grammar of Taiwan Mandarin because Mandarin in general lacks adjectives with a modifier-head structure composed of a disyllabic plus a monosyllabic morpheme (cf. Pan 2010, Dong 2014). Rather, the morphological structure of *bucuo*-V 'good to V' patterns more with that of its equivalent(s) *bebai/bephai*-V 'good to V' in Taiwan Southern Min (or TSM) than with that of any other existing word in Taiwan Mandarin. Thus the emergence of this new expression is unlikely to be motivated by language-internal mechanisms but rather more likely by language contact with TSM. We then argue that a morphological rule that generates *bebai/bephai*-V 'good to V' in TSM is responsible for deriving *bucuo*-V 'good to V' in Taiwan Mandarin when the rule is borrowed or transferred from TSM to Taiwan Mandarin via language contact. The results of this study lend support to

Thomason's (2006, forthcoming) theory of rule borrowing as well as provide evidence for the view that syntactic change may result from syntactic borrowing.

References

Cheng, Yi-Hsin. 2014. "On the sequence of *bucuo* V in Taiwan Mandarin." Paper presented at the 15th National Conference on Linguistics (NCL-15), May 23-24, 2014, Tunghai University, Taichung, Taiwan.

Dong, Xiu-fang. 2014. "2 + 1 shi san yinjie fuheci goucheng zhong de yixie wenti [Some Issues in Constructing Trisyllabic Compounds in Chinese]." *Hanyu Xuexi* 2014(6):3-10.

Harris. Alice C. and Lyle Campbell. 1995. *Historical Syntax in Cross-Lingllistic Perspectiv*e. Cambridge, Mass.: Cambridge University Press.

Kao, Wan-yu. 2008. "Lun xinxing jiegou "bucuo V" [On new structure "bu cuo V"]." *Cheng Ta Zhongwen Xuebao* 9:213-234.

King, Ruth. 2000. *The Lexical Basis of Grammatical Borrowing*. Amsterdam: John Benjamins.

Lass, Roger. 1980. *On Explaining Language Change*. Cambridge. Mass.: Cambridge University Press.

Lien, Chin-fa. 2008. "Yuyan benneng de meili: Zhi nan yan yi: Cong *bucuo chi* tan qi [The attraction of language instinct: Easier to speak than to know: To begin with *bucuo chi* 'good to eat']." Paper presented at the NSC Lecture Series on Mass Science Education, Feb 24, 2008, Kaohsiung, Taiwan. http://science.nchc.org.tw/science/science2007/master/07mas.htm

Pan, Yan. 2010. "Xiandai hanyu san yijie ci jiegou fenxi [The analysis of the structure of trisyllabic words in Modern Chinese] *." Xiandai Yuwen (Yuyan Yanjiu Ban)* 2010(11):48-50.

Poplack, Shana, and Stephen Levey. 2010. "Contact-induced grammatical change: A cautionary tale.**" In *Language and Space: An International Handbook of Linguistic Variation (Vol. 1: Theories and methods)*, edited by Peter Auer, and Jürgen Erich Schmidt, 391-419. Berlin: Mouton de Gruyter.

Sankoff, Gillian. 2002. "Linguistic outcomes of language contact.**" In *The Handbook of Language Variation and Change*, edited by Jack Chambers, Peter Trudgill, and Natalie Schilling-Estes, 638–668. Oxford: Blackwell.

Thomason, Sarah G. 2006. "Rule borrowing.**" In *Encyclopedia of Language & Linguistics,* 2nd edn.,volume 10, edited by Keith Brown, 671-677. Oxford: Elsevier.

Thomason, Sarah G. Forthcoming. "Can rules be borrowed?**" In *Festschrift for Terrence Kaufman*, eds. by Thomas Smith-Stark, and Roberto Zavala.

Tseng, Hsin-Yi. 2003. "*Dandai Taiwan Guoyu de Jufa Jiegou [The Syntax Structures of Contemporary Taiwanese Mandarin*]." MA thesis, National Taiwan Normal University.

Preverbal Focus and Syntactically Unmarked Focus in Hungarian: A Comparison

Enikő Tóth and Péter Csatár

University of Debrecen, Debrecen, Hungary

`toth.eniko@arts.unideb.hu; csatar.peter@arts.unideb.hu`

Background. In Hungarian preverbal/identificational focus (PVF) is marked by stress, and the focussed constituent moves into a preverbal position, while information focus is syntactically unmarked (SUF), the focussed element only receives prosodic prominence and remains in situ. It is generally accepted that an exhaustive interpretation is associated with PVF, while SUF is not exhaustive, it only conveys new and non-presupposed information (É. Kiss 1998). Recently, the inherent exhaustivity of PVF has been questioned both from an experimental and pragmatic perspective. Among others, Kas & Lukács (2013) showed that empirical data do not support the syntactic-semantic model of focus interpretation, and Gerőcs et al. (2013) argued that the exhaustivity of PVF is only a pragmatic implicature. Zimmermann (2008) suggested that focus constructions in various languages are triggered by discourse-semantic factors, but Hungarian might be an exception to this generalization. Skopeteas & Fanselow's (2011) experiments strengthened the exceptional status of Hungarian and showed that Hungarian PVF is not sensitive to contextual or discourse factors.

Aim. The aim of the present study is to collect further data regarding the exhaustive interpretation of PVF and the role of contextual factors. Moreover, since Surányi (2011) challenged É. Kiss's (1998) view of SUF and argued that SUF might also be exhaustive, we also wanted to compare the acceptability of PVF and SUF in various contexts.

Experiment. We carried out two pilot studies, where participants rated the target sentences on a 1-6 Likert scale embedded in a context, which was presented in writing and also illustrated by a picture. We tested two factors with two levels: context (exhaustive vs. non-exhaustive) and discourse expectability of the focussed constituent (expected vs. unexpected). The target sentences always formed an answer to a *wh*-question, and the focussed constituent was the object. 8-8 participants filled in a questionnaire containing 20 target sentences.

Results. The results of the pilot studies imply that both PVF and SUF receive significantly higher ratings in exhaustive contexts, while the discourse expectability of the focussed constituent does not influence the ratings in either case (PVF: Friedman-test: $\chi^2(3) = 90.736$, $p < 0.01$, post-hoc tests also showed significant differences between critical conditions; SUF: Friedman-test: $\chi^2(3) = 60.75$, $p < 0.01$, post-hoc tests also showed significant differences between critical conditions).

Discussion. Our findings provide empirical evidence in favour of Surányi (2011), who suggested that SUF can also receive an exhaustive interpretation in Hungarian, at least in a context which strongly supports exhaustivity. The results, if reproduced by the coming experiments (where the target sentences will be presented auditorily in order to exploit the prosodic features of the constructions under investigation), will also question the inherent exhaustivity of PVF included in the standard view. Therefore, the findings support those

views which claim that exhaustivity of PVF arises only as a pragmatic implicature, and since both PVF and SUF received similar ratings, the same might be true for SUF, as outlined in Surányi (2011). The results also confirm Zimmermann's (2008) and Skopeteas and Fanselow's (2011) suggestion that the interpretation of PVF in Hungarian does not depend on the discourse expectability of the focussed constituent.

Keywords: focus, exhaustivity, experimental pragmatics

References

Gerőcs, Mátyás, Anna Babarczy and Balázs Surányi. 2014. "Exhaustivity in focus: experimental evidence from Hungarian." In *Language Use and Linguistic Structure. Proceedings of the Olomouc Linguistics Colloquium 2013* edited by Joseph Emonds and Markéta Janebová, 181–194. Olomouc: Palacky University.

É. Kiss, Katalin. 1998. "Identificational focus versus information focus." *Language*, 74(2): 245–73.

Surányi, B. 2011. "A szintaktikailag jelöletlen fókusz pragmatikája." In *Új irányok és eredmények a mondattani kutatásban* edited by Huba Bartos, 281-313. Budapest: Akadémiai Kiadó.

Skopeteas, Stavros & Fanselow, Gisbert. 2011. "Focus and the exclusion of alternatives: On the interaction of syntactic structure with pragmatic inference." *Lingua* 121(11):1693–1706.

Zimmermann, Malte. 2008. "Contrastive focus and emphasis." *Acta Linguistica Hungarica* 55(3–4): 347–360.

Information Structure and Inverse Quantifier Scope Interpretation

Gergő Turi[1] and Balázs Surányi[1,2]

[1]Research Institute for Linguistics of Hungarian Academy of Sciences, Budapest, Hungary
[2]Pázmány Péter Catholic University, Budapest, Hungary
turi.gergo@nytud.mta.hu; suranyi.balazs@nytud.mta.hu

Background and objective. The preferred choice of interpretation assigned to scopally ambiguous sentences containing quantified phrases (QPs) is known to be affected by the interaction of disparate properties, including surface structure, grammatical/thematic functions, the semantic type of the QPs involved, and contextual cues, among others. A significant share of the impact that the sentence-context relation bears on actual scope readings is mediated by Information Structure (IS) (Partee 1990, 1999; Herburger 1997), which includes the IS status of the scope-taking QP itself. Topic status has long been claimed to be associated with wide scope (Kempson and Cormack 1981, Reinhart 1983, Erteschik-Shir 1997, Portner and Yabushita 2001). The effect of Focus status, however, is less clear. It has been varyingly linked either to narrow scope (Kitagawa 1990, 1994; Diesing 1992, Kratzer 1995, Krifka 2001, Cohen and Erteschik-Shir 2002) or to wide scope (Williams 1988; Deguchi and Kitagawa 2002, Ishihara 2002, 2010; or either of the two, depending on contrastiveness, Erteschik-Shir 1997).

Experiment. To address the divergence among the latter views, we carried out a Likert-scale based sentence-picture matching experiment in Hungarian.

Participants judged whether a sentence containing a post-verbal, D-linked, subject universal QP headed by 'each', presented on a screen, can express a particular targeted scope interpretation that was simultaneously triggered by both its context and the picture (Fig. 1). On the targeted reading the QP had either inverse wide scope over a pre-verbal number phrase, or surface narrow scope (Wide/Narrow). The universal QP was either a new contrastive (corrective) focus, or it was given in the context (Focus/Given). We added controls (which were expected not to license the intended scope readings) and fillers to this basic 2x2 design. Counterbalancing and randomization was applied as usual.

Results and discussion. Judgment *z*-scores were analyzed using a LMEM, and yielded the following results: the IS status of the sentences induced a significant main effect, however neither Scopal, nor interactive effects were found. This means that (i) both when the QP is focused and when it is given, both scope readings are equally easily available to it (corresponding to cca. 4 on the 5-point scale), and (ii) sentences with a focused QP are less acceptable than those containing a given QP. The low rating of controls provides clear evidence of participants' sensitivity to (un)availability of scope in the task. We conclude from these findings that the availability of an inverse scope interpretation to a universal QP exhibits a high degree of autonomy from IS.

A follow-up experiment showed that the independent reason why focus on QP led to relative degradation (on *both* scope readings) was that target sentences containing a focused post-verbal QP were semantically more complex than target sentences in which the post-verbal QP was given.

Keywords: Information Structure, Quantifier Scope, Hungarian

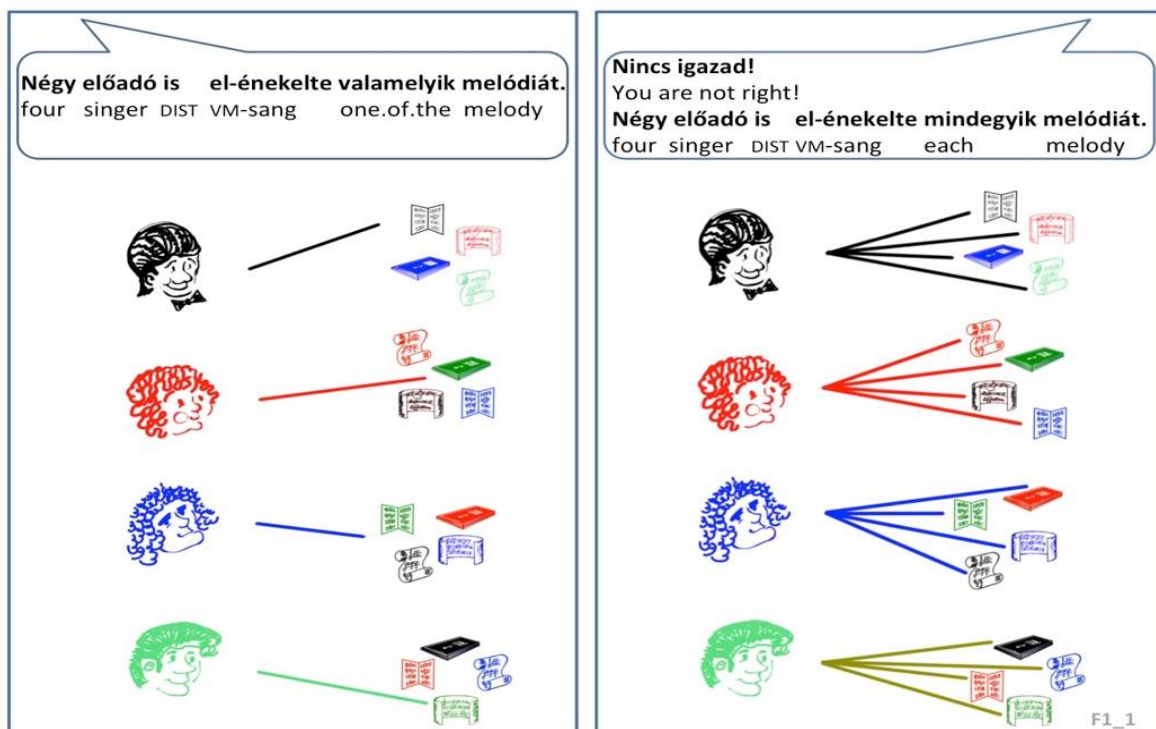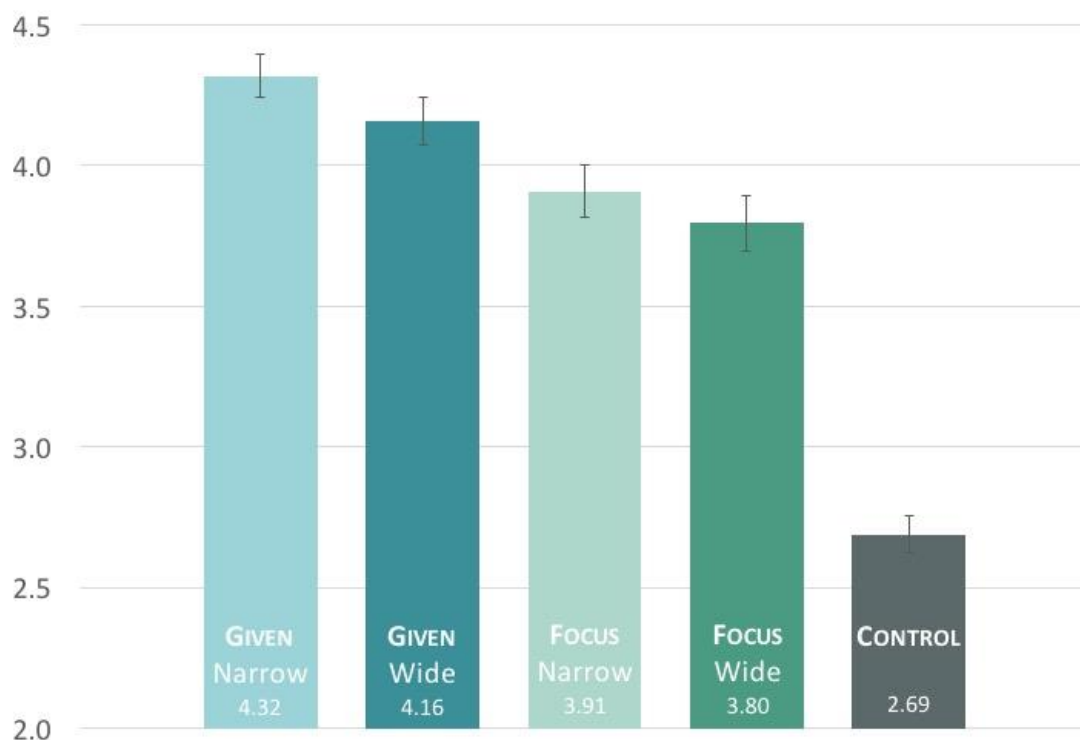**Figure 1: A sample picture of the dialogues (IS: Focus, Scope: Narrow)**

Figure 2: Results in raw scores

Selected references

Cohen, Ariel and Nomi Erteschik-Shir. 2002. Topic, Focus and the Interpretation of Bare Plurals. *Natural Language Semantics* 10. 125–161.

É. Kiss, Katalin. 2002. *The Syntax of Hungarian*. Cambridge: CUP.

Erteschik-Shir, Nomi. 1997. *The Dynamics of Focus Structure*. Cambridge: CUP.

Subject-Complement Asymmetry in Copular Clauses:
Investigating the Realization of the 'General' NP across Different Copular Types

Wout Van Praet

UNamur, Namur & KU Leuven, Leuven, Belgium

`wout.vanpraet@unamur.be`

Ordinary 'non-equative' copular clauses are characterized by a difference in lexicosemantic and/or referential generality between subject and complement (Lyons 1977; Heycock and Kroch 1999; Mikkelsen 2005). The aim of this paper is to investigate the nature of this hyp(er)onymical relation by looking at the form-function correlation of the lexicosemantically/referentially more 'general' NP (e.g. *a musician* in (1)) across different copular types.

(1) *David is <u>a musician</u>.* ['specific' NP] *be* ['general' NP]

A sample of 1,200 copular examples from *Wordbanks*Online was first analysed into two typological distinctions. The first compared specificational vs. ascriptive clauses (i.e. with the general NP being construed either as a variable for which a value is specified, or as an abstract category that is ascribed to the subject respectively); the second distinguished between definite vs. indefinite clauses (i.e. based on the (in)definiteness of the 'general' NP). This resulted in a cross-classification into four types (300 examples each):

(2) (a) *In those days, <u>a popular remedy</u> was laudanum.* (WB)   [indef. specificational]
     (b) I wondered if *German efficiency was really <u>a myth</u>*. (WB)   [indef. ascriptive]
     (c) <u>*The purpose of a school*</u> *is to make people inquisitive*. (WB) [def. specificational]
     (d) *Wyness was <u>the founder […] of The Olympic Club</u>*. (WB)   [def. ascriptive]

All examples were then analyzed for the semantics of the general NP's head noun and – if any – its modifiers. A first semantic distinction was made between 'abstract' vs. 'concrete' head nouns (i.e. denoting concepts relatively remote from perception vs. physical objects respectively (Cruse 2004)).

Secondly, if the general NP contained premodifiers, a quantitative analysis was used to determine the number of premodifiers in each example. A qualitative analysis sorted those premodifiers in different functional zones of premodification (i.e. 'postdeterminers', 'attributes' and 'classifiers'), which reflect an abstract-to-concrete continuum (Feist 2012).

Thirdly, in case of postmodification, the length of the postmodifier zone was measured based on word count. The length of the postmodifier slot was taken as an index of the lexicosemantic/referential specificity of the 'general' NP: longer postmodifiers have a more restrictive effect on the reference set of the class denoted by the head noun more as well as on the lexicosemantic specificity of the head noun.

Finally, an analysis of the syntactic category of the 'specific' XPs allowed me to determine the typical categories associated with each copular type as well as the degree of syntactic variation between them. A distinction was drawn between 'nominal' categories

(nouns, pronouns) and more 'relational' (verb-like) categories ('infinitives', '*wh*-clauses', '*that*-clauses', etc.). This distinction provides an insight into the referential specificity of the 'general' NP: a larger degree of syntactic variation in the 'specific' XP slot is more likely to result in a higher frequency of 'relational' categories, which – unlike 'nominal' categories – typically do not denote concrete entities and, therefore, typically have more abstract meaning. Consequently, the more abstract the meaning of the 'specific' XP, the more likely it is that the 'general' NP has abstract meaning as well.

To conclude, this paper investigates the realization of the 'general' NP across different copular types, looking into (i) the meaning of the head noun, (ii) its potential premodifiers, (iii) its potential postmodifiers and (iv) the nature and degree of syntactic variation of the 'specific' XPs with which it is linked. The lexicosemantic/referential analysis of the 'general' NP will, in turn, allowed me to investigate how the 'asymmetric' relation between the subject and the complement is construed in different copular types.

Keywords: copular clauses; subject-complement asymmetry; (in)definite nominal reference; lexicosemantic/referential meaning, specification/ascription

References
Cruse, Allan. 2004. *Meaning in Language: An Introduction to Semantics and Pragmatics.* Oxford: Oxford University Press.
Feist, Jim. 2012. *Premodifiers in English. Their structure and significance.* Cambridge: Cambridge University Press.
Heycock, Caroline, and Anthony Kroch. 1999. "Pseudocleft Connectivity: Implications for the LF Interface." *Linguistic Inquiry* 30 (3): 365-397.
Lyons, John. 1977. *Semantics*. Cambridge: Cambridge University Press.
Mikkelsen, Line. 2005. *Copular Clauses: Specification, Predication and Equation*. Amsterdam: John Benjamins.

Specificity and Past Participle Agreement in Catalan: A Diachronic Approach

Jorge Vega Vilanova

University of Hamburg, Germany

`jorge.vega.vilanova@uni-hamburg.de`

Past Participle agreement, PPA, (1) was common in all Old Romance languages, but is getting lost in the course of time: nowadays we find it e.g. in Italian and French, but not in Spanish, Portuguese and Romanian, and as for Catalan, PPA seems to be optional (e.g. Lois 1990).

(1) Creus que ja l' haurà **vista**, la pel·lícula? (Catalan)
    you-think that already CL.3FSg.Acc=will-have seen.FSg the film
    'Do you think he/she has already seen this film?'

In this paper, I will provide a new analysis of PPA in Catalan. On the basis of newly collected data I will show that the loss of PPA can be related to other phenomena than auxiliary selection or the syntactic position of the object. I will demonstrate that PPA is connected to differential object marking (DOM) and clitic doubling (CLD), two phenomena which are interrelated to specificity. Assuming that specificity is encoded together with verbal aspect within the functional category AgrO (Krifka 1989, Leiss 2000 etc.), I will suggest that PPA and CLD/DOM are two complementary means of satisfying formal features (case and aspect/specificity) hosted in AgrO. Old Catalan data seem to confirm this claim.

The loss of PPA has usually been related to reanalysis of the participle and grammaticalisation of the auxiliary verb (e.g. Macpherson 1967). Building on this view, Lois (1990) proposes a positive correlation between auxiliary selection and PPA. However, Catalan (with PPA, but no auxiliary selection) seems to contradict her analysis. Other approaches emphasize on the agreement relation between the object and the participle by means of movement to the functional category AgrO (Kayne 1989). Looking at Old Romance, however, poses a challenge for these accounts: on the one hand, object shift does not explain the obligatoriness of PPA (objects *in situ* also trigger PPA); on the other hand, these accounts cannot identify an adequate trigger for the loss of PPA in Modern Romance languages.

My corpus provides evidence for the fact that the first cases of optional PPA involve non-specific objects (2), whereas agreement with definite specific objects remains stable at least until the 16th century (3). So, specificity seems to be the trigger of the language change.

(2) car **oït** he moltes coses   (3) haveu **cobrada** la vostra raó
    since heart.Def I-have many things.FPl   you-have gained.FSg the your reason
    'since I heart many things that…'   'you recovered your common sense.'

As has often been argued, specificity is also responsible for CLD and DOM, which links them to PPA/object-shift (Tsakali & Anagnostopoulou 2008). The emergence of CLD, indeed, coincides with the decline of PPA. Further differences between Old and Modern Romance, however, have to be connected to case-assignment: when word-order got fixed in Old Romance (Fischer 2010), morphological case marking first weakened and finally it disappears. Consequently, I will claim that more local mechanisms for object case checking

(e.g. V-incorporation; cf. López [2012]) emerge and movement to AgrO ceases to be an option, and no agree relation is established with the object.

Keywords: Agreement; Past participle; Language change; Specificity; Case-assignment

References

Fischer, Susann. 2010. *Word Order Change as a source of Grammaticalization*. Amsterdam: Benjamins.

Kayne, Richard. 1989. Facets of Romance Past Participle Agreement. In P. Benincà (ed.), *Dialect Variation on the Theory of Grammar*, 85-104. Dordrecht: Foris.

Krifka, Manfred. 1989. Nominal Reference, Temporal Constitution and Quantification in Event Semantics. In Renate Bartsch, Johan van Benthem & Peter van Emde Boas (eds.). Semantics and Contextual Expressions, 75-115. Dordrecht: Foris.

Leiss, Elisabeth. 2000. *Artikel und Aspekt. Die grammatischen Muster von Definitheit*. Berlin, New York: De Gruyter.

Lois, Ximena. 1990. Auxiliary selection and past participle agreement in Romance. *Probus*, 2(2): 233-255.

López, Luis. 2012. *Indefinite Objects: Scrambling, Choice Functions, and Differential Marking*. Cambridge, MA: MIT Press.

Macpherson, Ian. 1967. *Past Participle Agreement in Old Spanisch: Transitive Verbs*, Bulletin of Hispanic Studies, 44, 4: 241-254.

Tsakali, Vina & Anagnostopoulou, Elena. 2008. Rethnking the Clitic Doubling parameter: The inverse correlation between clitic doubling and participle agreement. In D. Kalluli & L. Tasmowski (eds.), *Clitic Doubling in the Balkan Languages*, 321-357. Amsterdam: Benjamins.

Using Universal Dependencies for Cross-Linguistic Comparison of Syntactic Features in Evaluative Structures

Kateřina Veselovská

Charles University, Prague, Czech Republic
`veselovska@ufal.mff.cuni.cz`

This paper is to present a unique project of parallel treebank annotation and a case study of its practical use. We describe the project of Universal Dependencies, explain the methodological approach, illustrate the basic principles of parallel annotation and introduce the universal annotation scheme. Also, we provide a contrastive syntactic analysis of evaluative sentences in typologically different languages.

Over a long time, linguistics has been witnessing a growing interest in dependency analysis related to availability of richly annotated treebanks for many languages. However, annotation styles of the treebanks often differ and it is thus difficult to provide reliable studies concerning cross-linguistic comparison of various linguistic features conducted on large syntactically annotated datasets.

The project called Universal Dependencies[1] is to develop cross-linguistically consistent treebank annotation for many typologically different languages. Its annotation scheme is based on an evolution of Stanford dependencies (de Marneffe et al. 2006, 2008, 2014), Google universal part-of-speech tags (Petrov et al. 2012), and the Interset interlingua for morphosyntactic tagsets (Zeman 2008). The general concept of the project is to provide a universal inventory of categories and guidelines to facilitate consistent annotation of similar constructions across languages, while allowing language-specific extensions when necessary.

In the current study, we use Universal Dependencies to compare syntactic features in evaluative structures of selected languages. Based on the contrastive analysis, we create universal rules for evaluated entity detection in given structures (such as e.g. "If you find an evaluative adjective which is a part of a verbonominal predicate, the subject of its governing verb should be an evaluated entity." – cf. *The food was great*). The universal rules can be further employed e.g. in the so-called *opinion target identification*, i.e. a computational application in which the evaluated entities need to be automatically identified in natural language texts. Moreover, the analysis of syntactic features in evaluative sentences is also applicable within other subtasks of *sentiment analysis*, i.e. automatic extraction of emotions from text.

Keywords: universal dependencies, syntactic analysis, evaluative structures

References

de Marneffe, Marie-Catherine, MacCartney, Bill and Christopher D. Manning. 2006. *Generating typed dependency parses from phrase structure parses*. In Proceedings of LREC.

---

[1] See https://universaldependencies.github.io/docs/.

de Marneffe, Marie-Catherine and Christopher D. Manning. 2008. *The Stanford typed dependencies representation*. In COLING Workshop on Cross-framework and Cross-domain Parser Evaluation.

de Marneffe, Marie-Catherine, Dozat, Timothy, Silveira, Natalia, Haverinen, Katri, Ginter, Filip, Nivre, Joakim and Christopher Manning. 2014. *Universal Stanford Dependencies: A cross-linguistic typology*. In Proceedings of LREC.

Petrov, Slav, Das Dipanjan and Ryan McDonald. 2012. *A universal part-of-speech tagset*. In Proceedings of LREC.

Zeman, Daniel. 2008. *Reusable Tagset Conversion Using Tagset Drivers*. In Proceedings of LREC.

Economy of Czech Group Nouns and Quantifiers

Ludmila Veselovská

Palacký University, Olomouc, Czech Republic

`ludmila.veselovska@email.cz`

The study concerns the analysis of Czech quantifiers considering their morphosyntactic patterns (including some aspects of interpretation). Its theoretical framework is following Pesetsky (2013), who proposes that case is a categorial feature of a lexical head, e.g. N (N-Case, Genitive), copied to the relevant domain via derivation or a primeval case assigned by a respective categorial suffix. The framework also assumes one grammatical system including syntactic derivation as well as morphology - i.e. I will propose specific structures (and derivations) for the Czech data as they can be deduced from language specific morphological patterns using (i) the theory of Feature Assignment (i.e. a locality restricted feature spreading) modified for the attested language specific data and (ii) the universal blocking of the case assignment and feature spreading caused by head movement and/or by a phrasal border.

Concentrating on structures comprising two Czech quantifiers *spousta* 'plenty' and *málo* 'little/few' (and some others) I will provide a summary and statistics of data extracted from Syn 2010 (Czech National Corpus), the study by Veselovská (2001) and Jiranová (2008). The Czech structures with quantifiers appear with complex agreement patterns and they allow a certain level of variety as e.g. below in (a) and (b), some of which are apparently problematic even with native speakers (and the prescriptive rules).

I will demonstrate the acceptable (=attested) varieties and consider the existing structures from the point of view of economy of derivation. I will show that the proposed analysis is able to predict the occurrence of existing paradigms: the structures which are equivalent w.r.t. economy criterion do compete in the collected corpus (the speakers use both varieties), while the structures which are structurally unambiguous do not show statistically relevant variety.

(a) *Přišlo /-la   spousta lidí.*
     arrived$_{SN/SF}$ plenty$_{NOM}$ people$_{GEN}$
     'There arrived a lot of people.'

(b) *Mluvil s   pár svědky /   párem svědků*
     spoke$_{SM}$ with   couple$_{NOM}$ witness$_{GEN}$ [couple witness]$_{INSTR}$
     'He spoke with a couple of witnesses.'

My analysis will be based on contrasting the Czech quantified structures (QP) with projections of prototypical nominals (DP). I will propose the derivation of the quantificational structures within the above theoretical framework, showing that two theoretically predicted kinds of genitive exist inside the Czech nominal structures - (i) one primeval genitive, which is the case preserved inside DP when D was deprived of its case assigning potential: this case is typical for the structures containing quantifiers (including

Czech group nouns, some quantifiers and numerals); and (ii) the genitive assigned during the derivation by a categorial head N (under extended sisterhood relation) which is typical for standard double DP patterns with adnominal genitives (including the Czech container nouns). I will demonstrate the distinction between the two patterns as it correlates other characteristics of the quantified projections.

References

Jiranová, Pavlína. 2008. *Morfologická a syntaktická charakteristika českých číslovek vyjadřujících počet entit, jejich souborů a druhů* [Morphological and syntactical description of Czech numerals expressing number, sets and types of entities]. Master's thesis, Charles University.

Pesetsky, David 2013. *Russian case morphology and the syntactic categories*. Cambridge, Mass.: MIT Press.

Syn2010 Český národní korpus. 2010. Praha: Ústav Českého národního korpusu FF UK. http://www.korpus.cz.

Veselovská, Ludmila 2001. "Agreement Patterns of Czech Group Nouns and Quantifiers." In *Semi-Lexical Categories: The Function of Content Words and the Content of Function Words*, Vol. 59 of Studies in Generative Grammar, edited by Norbert Corver & Henk van Riemsdijk, 273–320. Berlin: Mouton de Gruyter.

Fake Guns, Privative Adjectives and Taxonomies of Concepts

Marcin Wągiel

Palacký University, Olomouc, Czech Republic
`marcin.wagiel@upol.cz`

In standard entailment-based typologies of adjectives, modifiers such as *fake* or *false* are commonly classified as privative adjectives (e.g. Kamp 1975). The compositional behavior of partitives is puzzling since they display the inference pattern in (1) $[\![AN]\!] \cap [\![N]\!] = \emptyset$, i.e. denotations of composite constructions involving such modifiers do not overlap with denotations of modified nouns. Unlike in cases of intersective or subsective adjectives, a sentence such as (2) *That is a fake gun* does not entail (3) *That is a gun*, but rather its negation, i.e. (4) *That is not a gun*. Surprisingly, despite the inference pattern in (1)–(4) sentences such as (5) *Is that gun real or fake?* are felicitous.

Due to their unique behavior partitive adjectives have been recognized as a challenge for compositionality. To account for the data such as (5), it has been recently proposed by Partee (2009, 2010) that in fact modifiers such as *fake* are subsective adjectives which coerce a modified noun. For instance, the noun *gun* in the expression (6) *fake gun* is coerced to mean both guns and non-guns. Nevertheless, as pointed out by Oliver (2013) this approach seems to predict that (2) should be felicitous also when talking about a fork instead of a toy gun; this is obviously not the case though. On the other hand, Del Pinal (2015) argues that compositionality can be saved assuming dual content semantics of common nouns which differentiates between E-structure, i.e. the extension of a noun, and C-structure, i.e. "core facts" associated with the noun's stereotype. In this paper, I propose an alternative approach to privative adjectives based on the distinction between tokens and types introduced in standard literature on genericity (e.g. Carlson 1977).

Building on the analysis of relational adjectives by McNally & Boleda (2004), I propose that privative adjectives are in fact properties of type-level individuals. Following Krifka (1995), I assume a broad notion of 'concept' to cover both conventional kinds and entities which do not need to be well-established, but are not spatio-temporally bounded just as kinds proper. In other words, kinds constitute a subset of a more general class of concepts. The core of the analysis is the following one. Privatives do not target objects, but rather concepts. They establish a "peripheral" subclass within a concept. Such a "peripheral" subclass differs from the "central" (or "core") one in that their members are not stereotypical and often lack some property typically associated with a concept in question. As a result, (6) refers to a type-level entity which is taxonomically associated with a concept 'gun' although it does not shoot.

The analysis seems to be supported by the fact that privatives fit well in generic contexts such as (7) *A fake gun is a kind of a gun which does not shoot* or (8) *All sorts of guns are strictly prohibited on board; regardless whether they are real or fake*. Furthermore, linguistic evidence in favor of the treatment of privative adjectives as properties of concepts comes from word order. Assuming that adjective ordering corresponds to the order of composition (cf. McNally & Boleda 2004), it is predicted that concept-modifying adjectives should occur closer to a modified noun than object-modifying adjectives. The contrast between such

phrases as (9) *small fake gun* and (10) #*fake small gun* seems to corroborate the proposed analysis.

Keywords: modification; privative adjectives; genericity; concepts

References
Carlson, Gregory. 1977. *Reference to Kinds in English*. Ph.D. diss. Amherst: University of Massachusetts.
Del Pinal, Guillermo. 2015. "Dual Content Semantics, Privative Adjectives, and Dynamic Compositionality". *Semantics and Pragmatics* 8: 1–53.
Kamp, Hans. 1975. "Two Theories about Adjectives". In *Formal Semantics of Natural Language: Papers from a Colloquium Sponsored by the King's College Research Centre, Cambridge*, edited by Edward L. Keenan, 123–155. Cambridge: Cambridge University Press.
Krifka, Manfred. 1995. "Common Nouns: A Contrastive Analysis of Chinese and English". In *The Generic Book*, edited by Gregory N. Carlson and Francis J. Pelletier, 398–411. Chicago: The University of Chicago Press.
McNally, Louise and Gemma Boleda. 2004. "Relational Adjectives as Properties of Kinds". In *Empirical Issues in Formal Syntax and Semantics: Papers from CSSP 2003*, edited by Olivier Bonami and Patricia Cabredo Hofherr, 179–196. Paris: CSSP. http://ww.cssp.cnrs.fr/eiss5
Oliver, Michael A. 2013. "Interpretation as Optimization: (So-called) Privative Adjectives Constructions". Abstract of a paper presented at the Third Mid-Atlantic Colloquium of Studies in Meaning (MACSIM). April 13th 2013. Johns Hopkins University.
Partee, Barbara. 2009. "Formal Semantics, Lexical Semantics, and Compositionality: The Puzzle of Privative Adjectives". *Philologia* 7: 11–23.
Partee, Barbara. 2010. "Privative Adjectives: Subsective plus Coercion". In *Presuppositions and Discourse: Essays Offered to Hans Kamp*, edited by Rainer Bäuerle, Uwe Reyle, and Thomas E. Zimmermann, 273–285. Bingley: Emerald Group Publishing Limited.

How to Do Your Best—Feature Sharing and Rule H

Susi Wurmbrand

University of Connecticut
`susi@alum.mit.edu`

This paper shows, based on the distribution of bound (fake) indexicals in four Germanic languages, that binding is not sensitive, nor can it be assumed to be driven or mediated by functional heads as postulated in many current approaches to binding (Reuland 2001, 2005, 2011, Chomsky 2008, Kratzer 2009). Instead data are provided that argue for a return to the traditional view that binding requires a direct dependency between the antecedent and the bindee. I propose that this dependency is best formalized as Reverse Agree (Wurmbrand 2011, 2012, Zeijlstra 2012) constrained by a locality condition reminiscent of Rule H (Heim 1993, Fox 1998) and the concept of feature sharing proposed in Pesetsky and Torrego 2007.

Sentences such as (1) are possible in E(nglish) and D(utch), but require a third person possessive in G(erman) and I(celandic) to express a bound variable [BV] interpretation.

(1) *I am the only one who did my best.*   ✓: E, D; *: G, I (3rd person POSS needed)

Accounts based on binding via functional heads cannot predict the language variation and also make incorrect predictions for constructions in which the order of antecedent and bindee is reversed but the functional heads involved are kept constant, as in (2) in G: to yield a BV interpretation, the antecedent must c-command the pronoun.

(2) *weil* {*mein*[*BV] *Sohn*}   *nur mich*[AC]   {*mein*[✓BV] *Sohn*} *versorgt*
       since {my.NOM son}   only me.ACC   {*my*[✓bv] *Sohn*}   take.care.of.3.SG

I propose that the language variation in (1) originates in a difference in the morphological make-up of the head DP of the relative clause (in G also the relative pronoun): DP_{REL} shows gender distinctions in the singular in G/I but not in E/D (see Table 1). The semantic dependencies involved in (1) which yield [I_x *am the only x, such that x does x's best*] are: i) predication (*I » the only one*), ii) relativization (movement of REL.OP or head NP, λ-abstraction), and iii) binding of the possessive. Following Pesetsky and Torrego 2007, multiple transitively linked Agree relations involve feature sharing. Thus in (1), *I, the only one who*, and *my* are linked, and all features common to these elements are shared. In G/I (3), the features shared are gender ⚦ and number # (*der/die einzige(n)*), whereas in E/D (4), only # is shared (*the one/ones*). Assuming shared features cannot be overwritten, this correctly predicts that if *I*=female, the possessive pronoun in (3) must realize the shared ⚦, # features, yielding 'her' (3rd person [π] corresponds to the lack of person).

(3) *I* [1.**F.SG**]   *the only Ø who* [#__ ⚦ __]**G,I**   *my* [# __ ⚦ __ π __] ➡ *her*
(4) *I* [1.F.**SG**]   *the only Ø who* [# __]**E,D**   *my* [# __ ⚦ __ π __] ➡ *her* or *my*

In E/D, only SG is shared, and the possessive pronoun therefore needs to acquire the remaining feature values in a different way. I suggest that this can happen via an additional feature sharing relation with an element linked (directly or indirectly) to the pronoun already through the chain of dependencies. Thus, in (4), the pronoun can draw ⚦ or π from the features of the matrix subject—if the former, *her* arises, if the latter *my* arises. Lastly, to

exclude such 'reaching up' in G/I (3), I propose a locality constraint Rule H_{PF}: A variable x cannot Agree with an antecedent α, in cases where a more local antecedent β (with the same binding index) could Agree with x and share morphosyntactic features with x. I show that Rule H_{PF} operates as a general constraint on feature transmission in binding and correctly predicts the distribution of (im)possible mismatches attested in gender agreement.

Keywords: binding, fake indexicals, Agree(ment), feature sharing, locality, mismatches

Table 1	English	Dutch	German	Icelandic
F.SG	*the only one*	*de enige*	*die einzige*	*sú eina*
M.SG	*the only one*	*de enige*	*der einzige*	*sá eini*
PL	*the only ones*	*de enigen*	*die einzigen*	*þær einu*

References

Chomsky, Noam. 2008. On Phases. In *Foundational Issues in Linguistic Theory*, ed. by Robert Freidin, Carlos P. Otero and Maria Luisa Zubizarreta, 133-166. Cambridge, MA: MIT.

Fox, Danny. 1998. Locality in variable binding. In *Is the best good enough? Optimality and competition in syntax*, ed. by Pilar Barbosa, Danny Fox, Paul Hagstrom, Martha McGinnis and David Pesetsky, 129-155. Cambridge, MA: MIT Press and MITWPL.

Heim, Irene. 1993. Anaphora and semantic interpretation: A reinterpretation of Reinharts' approach. In *Arbeitspapiere des Sonderforschungsbereichs 340*. Tübingen: University of Tübingen.

Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40.2:187-237.

Pesetsky, David, and Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture*, ed. by Simin Karimi, Vida Samiian and Wendy Wilkins, 262-294. Amsterdam: John Benjamins.

Reuland, Eric. 2001. Primitives of binding. *Linguistic Inquiry* 32.3:439-492.

Reuland, Eric. 2005. Agreeing to Bind. In *Organizing Grammar*, ed. by Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz and Jan Koster, 505-513. Berlin, Germany: Mouton de Gruyter.

Reuland, Eric. 2011. *Anaphora and Language Design*. Cambridge, MA: MIT Press.

Wurmbrand, Susi. 2011. On Agree and Merge. Lecture notes, Storrs: University of Connecticut.

Wurmbrand, Susi. 2012. Agreement: Looking up or looking down? Lecture given in Agreement seminar, MIT, Cambridge, MA.

Zeijlstra, Hedde. 2012. There is only one way to Agree. *The Linguistic Review* 29.3:491–539.

Semantic Gender Features of Nouns—Visible and Active in Syntax

Susi Wurmbrand

University of Connecticut
`susi@alum.mit.edu`

This paper offers new evidence for semantic gender features on nouns and featurally triggered semantic agreement.

German has formal and semantic gender, which can mismatch in certain cases. For instance, the noun *Mädchen* 'girl' is grammatically NEUT(er), but semantically FEM(inine). The noun *Person* 'person' is grammatically FEM, but can correspond to either a FEM or a MASC(uline) referent. I propose that nouns that semantically encode a specific gender (*girl*) involve a semantic gender feature as part of the lexical entry, whereas nouns that do not specify gender (*person*) do not involve a semantic gender feature.

First evidence for a different featural make-up comes from binding. When such nouns head NPs which bind pronouns, a difference arises: *Mädchen*, (1a), can trigger formal (NEUT) or semantic (FEM) agreement, whereas *Person*, (1b), can only trigger formal (FEM) agreement.

(1) a. *Nur das Mädchen* / *Kein Mädchen hat sein* / *ihr Bestes gegeben* formal/semantic
    Only the.NEUT girl / No.NEUT girl has its /her best given
  b. *Nur diese Person*   / *Keine Person hat ihr* / **sein Bestes gegeben*   only formal
    Only this.FEM person /No.FEM person has her /*his best   given

Further evidence for the presence of a semantic gender feature on nouns like *Mädchen* can be drawn from nominal ellipsis. Nominal ellipsis comes in two types: N(P)-ellipsis, which involves PF deletion of a specific antecedent noun; and 'deep' ellipsis, which involves an abstract Ø.N specified for [±ANIMATE] but no concrete noun. The two types of ellipsis can be distinguished by context. N(P)-ellipsis as in (2a) singles out one girl from a group of girls, whereas deep ellipsis as in (2b) does not restrict the comparison group to girls but the N is interpreted as an abstract PERSON/HUMAN. In (2a), agreement on the ellipsis remnant is determined by the features of the elided noun (via concord). In (2b), crucially, the ellipsis remnant cannot show formal (NEUT) agreement with the antecedent, but must show semantic FEM agreement. I argue that this is the result of obligatory semantic agreement with the antecedent: the semantic FEM feature of *das Mädchen* is transferred to Ø$_{[+ANIM]}$, which then in turn triggers formal agreement/concord on the ellipsis remnant. Lastly (2c) shows that (2b) cannot involve a silent noun 'person', since a masculine subject, which would be compatible with a FEM DP when it contains the overt noun *Person*, cannot occur with a FEM remnant.

(2) a. Context: a group of girls
    Das blonde Mädchen *ist das einzige*   ~~*Mädchen*~~, *das*   *lacht*
    the.NEUT blonde girl   is   the.NEUT only ~~girl~~   who.NEUT laughs
  b. Context: a group of men and only one girl Cannot mean: the girl is the only girl…
    Das Mädchen   *ist*   *das einzige / ✓ *die einzige* Ø$_{[+ANIM]}$, *die*   *lacht.*
    the.NEUT girl   is   *the.NEUT only / ✓ the.FEM only ONE   who.FEM   laughs
  c. *Er ist* {*die einzige*   *(*Person*), *die …* } / {*der einzige*   (*Person), *der*   }
    He is {the.FEM only *(person) who.FEM } / {the.MASC only (*person) who.MASC }

These data and analysis challenge the universal nature of Corbett's (1979, 2006) *Agreement Hierarchy* since predicates are lower on the semantic agreement scale than relative pronouns, yet, the former do but the latter don't allow semantic agreement. Furthermore, since semantic

agreement feeds into formal agreement in (2b), the semantic features involved need to be visible to the formal component. This can be achieved if nouns such as *Mädchen* (and as a result also the projecting NP/DP) have two sets of features—formal and semantic gender features.

Testing Phonotactic Constraints: A Language Game Experiment

Joanna Zaleska

University of Leipzig

`joanna.zaleska@uni-leipzig.de`

Introduction. This paper reports on a pilot study involving an experimentally constructed language game, aimed as a contribution to the long-standing debate on the status of the Polish high central vowel, [ɨ]. The results suggest that the ban on word-initial [ɨ] is an accidental gap, and as such cannot be used as an argument for the allophonic status of the vowel. Additionally, they indicate that the [±back] feature spreads from a vowel onto the preceding consonant rather than vice versa, supporting the hypothesis that [ɨ] and [i] are separate units.

Background. The surface vowel inventory of Polish contains 6 oral monophthongs, [a, ɛ, ɔ, u, i, ɨ]. The two high unrounded vowels, front [i] and central [ɨ], stand in complementary distribution: [i] may appear word-initially and after 'soft' (palatalized) consonants as well as prepalatals, (1a). [ɨ] may only appear after 'hard' consonants (1b).

(1) a.   ił [iw] 'loam'   miła [mʲiwa] 'nice' (fem)   siła [ɕiwa] 'strength'
     b.   *[#ɨ]   myła [mɨwa] 'she washed'   *[ɕɨ]

This has led some scholars (e.g. Czaykowska-Higgins 1988) to conclude that [ɨ] is a positional variant of /i/ that only appears after non-palatalized consonants. Others (e.g. Rubach 1984) recognize /ɨ/ as a separate underlying segment and treat the soft consonants as allophones of their plain equivalents, derived by spreading [–back] from the following high vocoids. The latter view reduces the total absence of [ɨ] in the word-initial position to an accidental gap.

Research questions. To determine whether the lack of word-initial [ɨ]s is a systematic gap, I used a Pig-Latin type game, which involved moving the word-initial onset to the end of the word and suffixing an /u/, thus, e.g. turning *droga* [drɔga] 'road' into [ɔgadru]. If the ban is a systematic force in the language, we may expect speakers to realize [ɨ] differently (e.g. by changing it into [i]) when the first vowel becomes word-initial in a word like *ryba* [rɨba] 'fish'. The game also makes it possible to test whether the frontness of the vowel in a *C'i* sequence is a reflex of the soft quality of the preceding consonant. If so, the initial consonant in a word like *piwo* [pʲivɔ] 'beer' should retain its palatalization when moved. If, on the other hand, the [–back] feature originates on [i], the consonant is expected to lose palatalization.

Method. The experiment was run with 20 native speakers of Polish, 10 male and 10 female, aged between 22 and 52 (mean age 31.2). It consisted of a learning phase, in which the participants trained to achieve fluency in the game by responding to words with non-high vowels provided verbally by the experimenter. In the production phase that followed, they had to produce a verbal response to items heard through headphones. The stimulus set consisted of 20 Polish disyllabic words of the shape (C)CV(C)CV, all of them frequently used nouns in nominative case (singular and plural). In 10 of the items, the vowel in the initial syllable was [i]; in the remaining 10, it was [ɨ]. The 20 experimental items were randomly interspersed with 60 fillers, which contained other vowels in the initial syllable but otherwise had the same characteristics as the experimental words (disyllabic, (C)CV(C)CV shape). The list of 80 items was presented to each participant in the same order. The responses were recorded and later submitted to perceptual inspection and transcription.

Results and discussion. In the experiment, the [i] vowel was realized differently in the transformed word and in the stimulus in 1% of the trials, whereas [ɨ] was modified in 16% of the trials (Fig. 1). It was not, however, fronted to [i] but rather lowered to the mid position. This suggests that the gap is accidental for many speakers, and even those speakers who are aware of it do not associate [ɨ] with /i/. Secondly, whereas plain consonants remained non-palatalized in the transformed word in 100% of the trials, soft consonants were depalatalized in 91% (Fig 2). This provides strong support to the regressive palatalization hypothesis.

Figure 1. Proportion of vowels realized faithfully with respect to the stimuli, broken down by vowel quality in the first syllable of the stimulus. Each dot represents the proportion of 'faithful' responses for a single participant with dots jitttered on the x axis to avoid overlap.

Figure 2. Proportion of consonants realized faithfully with respect to the stimuli, broken down by vowel quality in the first syllable of the stimulus. Each dot represents the proportion of 'faithful' responses for a single participant with dots jitttered on the x axis to avoid overlap.

Keywords: artificial language game, surface palatalization, Polish, phonotactics

References
Czaykowska-Higgins, Ewa. 1988. Investigations into Polish morphology and phonology. PhD Dissertation. Massachusetts Institute of Technology.
Rubach, Jerzy. 1984. *Cyclic and Lexical Phonology: The structure of Polish*. Dordrecht: Foris.

Contentives or the Alleged Universal Noun-Verb Distinction: An Asymmetric Perspective

Hedde Zeijlstra

Göttingen University, Göttingen, Germany
`hzeijls@uni-goettingen.de`

A traditional assumption is that languages minimally distinguish *nouns* and *verbs,* even if that distinction is morphologically invisible (cf. Halle & Marantz 1993, Baker 2003, 2008, Borer 2003, Croft 2005, 2009). For these scholars, this universal noun-verb distinction is given by UG. However, can it be proven that every language exhibits nouns and verbs? Take Samoan. In Samoan, all content words can systematically be used both verbally and nominally. Samoan *alu* in (1) may either mean 'to go' or 'the going', depending on the grammatical context: combined with a tense marker it obtains a verbal reading 'go'; combined with an article, it yields a nominal reading '(the) going' (cf. Mosel & Hovdhaugen 1992; Don & Van Lier 2013):

(1) a. E   alu le pasi I Apia.   b. Le alu   o le pasi I Apia
         PRES go the bus to Apia   The go   of the bus to Apia
         'The bus goes to Apia."   The going of the bus to Apia'

Are the two instances of *alu* in (1) two different, homophonous lexical items or not? Whereas Croft (2005) argues that they are, Mosel and Hovdhaugen (1992) have argued that such languages exhibit a single category, generally referred to as *contentive,* a supercategory above nouns and verbs. Samoan would then be a language that lacks nouns and verbs. Similar claims have been made for Mundari (Hengeveld and Rijkhoff 2005), Kharia (Peterson 2006) and Riau Indonesian (Gil 2013).

The central argument for postulating a universal noun-verb distinction is that the meanings of the verbal and nominal usages of alleged contentives do not follow compositionally. For instance, Samoan *tutsi* can mean 'to write', 'letter' and 'book'. It would be hard to come up with a compositional analysis that can derive these meanings from a universal base meaning purely on the basis of the linguistic environment. For this reason, Hengeveld and Rijkhoff (2005) have argued that in such flexible languages interpretation does not have to proceed in a strictly compositional fashion. For them, the underlying semantics is vague, so that both readings can come about, even though it is not predictable which meanings must be yielded. The existence of contentives thus seems to rely on the assumption that languages may allow non-compositional interpretations. However, this restricted view on compositionality is at complete odds with its original motivation in Frege (1892) and Janssen (1986); giving up compositionality immediately introduces the virtually unsolvable question as to why sentences in all other languages must be subject to compositional interpretation.

In this paper, I pursue a novel, asymmetric approach. So far it has always been assumed that if a language exhibits two major lexical categories, they must always be nouns and verbs. Thus, if Samoan has two different lexical items *tutsi* (*to write* and *the writing/letter/book*), one must be a noun *tutsi* (meaning 'writing/letter/book') and the other a verb *tutsi* (meaning 'to write'). No one, as of yet, has defended the view that some languages may have asymmetric categorical relations: i.e. languages that have contentives and nouns, but lack verbs, or

languages that have contentives and verbs, but lack nouns. But nothing principal excludes such languages. If, however, such asymmetries are not ruled out, it is predicted that in languages that exhibit this kind of flexibility, it should be possible that one of the two related meanings can be used both verbally *and* nominally (as it is a contentive), whereas the other meaning can only be used either verbally *or* nominally (as it is either a noun or a verb). This prediction is indeed borne out. As shown by Mosel & Hovdhaugen (1992) and Don & Van Lier (2013) Samoan *tutsi,* as well as a number of other examples, behave exactly like that. *Tutsi* has much richer nominal usage, varying from '(the) writing' to '(the) letter/book', than a verbal usage: *tutsi* in a verbal context can mean 'to write', but never 'to be a book'. This shows that there is a noun *tutsi* meaning 'book', and a contentive *tutsi* that can mean 'to write' (in verbal contexts) and 'the writing' (in nominal contexts). Hence, even though Samoan does exhibit two different lexical categories, it falsifies the claim that every language has nouns and verbs and confirms the claim that languages may exhibit contentives.

Keywords: contentives, nouns, verbs, UG

References
Baker, M. 2003. *Lexical categories: Verbs, nouns and adjectives*. Cambridge: CUP.
Baker, M. 2008. *The Syntax of Agreement and Concord*. Cambridge: CUP.
Borer, H. 2003. 'Exo-skeletal vs. endo-skeletal explanations: Syntactic projections in the lexicon.' In: J. Moore & M. Polinsky (eds.), *The nature of explanation in linguistic theory*. Stanford: CSLI publications.
Croft, W. 2005. 'Word classes, parts of speech, and syntactic argumentation.' *Linguistic Typology 9*: 431-441.
Croft, W. 2009. 'Syntax is more diverse, and evolutionary linguistics is already here.' *Behavioral and Brain Sciences* 32, 453-454.
Don J. & E. van Lier. 2013. 'Categorization and derivation in flexible and differentiated languages.' In: J. Rijkhoff & E. van Lier (eds.): *Flexible word classes: a typological study of underspecified parts-of-speech*. Oxford: OUP, 56-88.
Frege, G. 1892. 'Über Sinn und Bedeutung.' *Zeitschrift für Philosophie und philosophische Kritik 100*: 25–50.
Gil, D. 2013. 'Riau Indonesian: A Language without Nouns and Verbs.' In: J. Rijkhoff & E. van Lier (eds.): *Flexible word classes: a typological study of underspecified parts-of-speech*. Oxford: OUP. 89-113.
Halle, M. & A. Marantz. 1993. 'Distributed Morphology and the Pieces of Inflection.' In: K. Hale & S.J. Keyser (eds), *The View from Building 20*, 111-176. Cambridge, MA: MIT Press.
Janssen, Th. 1986. *Foundations and applications of Montague Grammar*. Ph.D. Diss., University of Amsterdam.
Hengeveld, K. & J. Rijkhoff. 2005. 'Mundari as a flexible language.' *Linguistic Typology 9*: 406-431.
Mosel, U. & E. Hovdhaugen.1992. *Samoan Reference Grammar*. Oslo: Scandinavian University Press.
Peterson, J. 2006. *Kharia. A South Munda language. Volume I: Grammatical analysis*. Habilitationsschrift, Universität Osnabrück.

What Can a Discourse Behavior of a Demonstrative Tell Us about Its Stage of Grammaticalization?

Magdalena Zíková

Charles University, Prague, Czech Republic
`magdalena.zikova@ff.cuni.cz`

It has been almost one hundred years since it was first explicitly stated that the Czech demonstrative *ten* exhibits some properties of a definite article (Mathesius 1926) and since then uncertainty about its grammatical status persists (Meyerstein 1972, Heine & Kuteva 2006). However, empirical evidence is still missing, partly due to the natural limitation of historical sources, partly due to the lack of adequate methodology.

The aim of this paper is to shed some light on the past development of the Czech demonstrative *ten* by analyzing its distribution in spoken discourse in contemporary Czech. The methodology is mostly inspired by the work done on discourse anaphora (Givón 1983) and similar studies carried out on other languages (Laury 1997). Anaphoric reference (reference to an entity previously mentioned in the discourse) is a common basis of referent identification and, as such, is standardly accompanied with a definite article. Moreover, anaphoric relations in contrast to other bases of identification, such as various kinds of common knowledge and conventional bonds, are relatively easy to delimit, as they are framed by the current discourse. In this way anaphoric reference can be used as a background against which the function of the demonstrative *ten* can be tested: if the demonstrative serves a definite-like function, it should generally mark all previously mentioned referents (apart from some specific usage types).

My analysis relies in systematic comparison of all anaphoric mentions which are marked with *ten* with those marked with a lexical NP without *ten* (leaving the pronoun reference aside). In this way I expect to detect factors which favor or disfavor the usage of the demonstrative, particularly discourse prominence and discourse activation of the referent – which are considered the key concepts in the research on anaphoric means (Givón 2001).

The data consist of three short narratives spoken by 15 subjects (8 females, 7 males). Their task was to retell a short non-verbal film story which they had seen immediately before. 630 anaphoric mentions appeared in the narratives in total and all of them were coded for factors, such as animacy, syntactic role, sentence position (*topic – focus* distinction), sentence type, anaphoric distance (distance from the previous mention of the referent which corresponds to the level of its discourse activation) and its persistence in the following discourse.

Several important findings arise from the quantitative analysis. First, the overall counts prove that the demonstrative is already a well-established means for marking anaphoric reference: out of 630 mentions, 400 of them are accompanied with *ten*. As the identity of the referent is recoverable from the context so that nothing really calls for the referent to be explicitly marked, this finding is far from trivial. Second, the distribution of the demonstrative in Czech is not equal. Its usage appears to consist of two distinct functions: (i) the *strongly* demonstrative one which serves to point to non-activated prominent referents in the *focus*

position, and (ii) the *weakly* demonstrative one which serves to identify weakly activated non-prominent referents in the *topic* position. The first usage tends to *reintroduce* main characters back to the story after some time they were not present in the narration (cf. Laury 1997), the second usage rather *contextualizes* objects involved in current actions. It seems in the end that out of the factors examined it is the overall prominence of the referent together with its informational value and local/prospective relevance which are predictive of the use of the demonstrative.

Keywords: grammaticalization; Czech; demonstrative; anaphora; discourse analysis

References

Givón, Talmy, ed. 1983. *Topic Continuity in Discourse: a Quantitative Cross-language Study*. Amsterdam: John Benjamins.

Givón, Talmy. 2001. *Syntax I and II, Volume I: An Introduction.* Philadelphia, PA, USA: John Benjamins.

Heine, Bernd, and Tania Kuteva. 2006. *The Changing Languages of Europe.* 1st publ. Oxford Linguistics. New York: Oxford University Press.

Laury, Ritva. 1997. *Demonstratives in Interaction: The Emergence of a Definite Article in Finnish*. Studies in Discourse and Grammar. Amsterdam: John Benjamins.

Mathesius, Vilém. 1926. "Přívlastkové ten, ta, to v hovorové češtině." *Naše řeč* 10: 39–41.

Meyerstein, Zlata. 1972. "Czech deictics: pronouns and articles?" *Linguistics* 10 (91): 17–30.