How categorical are categories?
Workshop held at the University of Wroclaw in January 2013.

Leitmotiv
How categorical are the traditional distinctions between grammatical categories and how categorical is their semantics? New theoretical and experimental approaches to old problems.

Who we are
We are a group of young researchers working at the Center of General and Comparative Linguistics at the University of Wroclaw in Poland (http://www.ifa.uni.wroc.pl/linguistics/). Our project Understanding Categories: Three approaches to temporality is funded by the FNP (Foundation for Polish Science) (http://www.ifa.uni.wroc.pl/trait/). The project consists of three subprojects, each of them approaching the question of temporality from a different perspective: a typological perspective (looking for macro- and mini-parameters of crosslinguistic variation), a diachronic perspective (looking at the development and changes within the categories of tense and aspect in Slavic languages), and a psycholinguistic perspective (looking, among other things, for new evidence for the categorical status of converbs).

More about the workshop

General issue
The workshop is intended to bring together formal and experimental linguists and thus provide a forum for discussion about the nature of linguistic diversity in syntax and semantics of various grammatical categories, with special focus on Tense, Aspect and Modality. Are they universally separate categories with clear-cut distinctions or should they rather be understood as a continuum of a more abstract broader category (cf. Bybee (1985), Haspelmath (2007), Richards and Malchukov (2008)). If the latter option should turn out to be correct or more convincing, then the question is: how categorical are the traditional distinctions between grammatical categories and how categorical is their semantics? For example, languages may vary in the semantics of modals, tense, aspect, evidentials, determiners, etc. (cf. Matthewson (2011) and the references cited therein).

Moreover, the question we are interested in is: how does the status of the traditional grammatical distinctions change in the light of (i) the growing body of evidence from languages that have previously been under-investigated and/or (ii) the explosion of functional projections assumed in a cartographic framework?

Another domain where the borders between different grammatical categories are rather obliterated is parts of speech (i.e., lexical categories). Firstly and quite uncontroversially, there exist categories occupying the “grey zone” between verbs and nouns. These include gerunds and various non-finite forms of verbs as, e.g., Romance infinitives (Raposo (1987)) or Turkish nominalized agreeing clauses (Kornfilt and Whitman (2011)). This classificatory problem emerges also in typological work on more exotic languages, where the validity of the distinction is questioned, as, e.g., in the so-called nominalist theory for Eskimo.
A parallel debate runs in the domain of adjectives and verbs (McCawley (1992), Dixon (1982), etc.). Secondly, even if a given category has strictly defined semantics, as, e.g., the so-called anterior converb (aka anterior adverbial participle), it is hard to come up with a universal characterization of its morphosyntactic behavior (cf. noun-like converbs in Turkish, Ge’ez and Evenki (Haspelmath and König (1995)) vs. adjectival agreeing converbs in Panoan (e.g., Shipibo-Konibo (Velanzuela (2005))).

Finally, a debate concerning lexical categories (nouns vs. verbs) is also present in the neurolinguistic / psycholinguistic literature, where the cortical manifestation of the different categories is being sought. One position quotes evidence for the categorical organization of the mental lexicon (category-specific and modality-specific deficits in Caramazza and Hillis (1991), Damasio and Tranel (1993), electrophysiological evidence for the distinctness of one category (Federmeier et al. (2000)), neuroimaging evidence for distinct neural networks involved (Marslen-Wills on (2007), Tyler et al. (2004), Longe et al. (2007), Finnocchiaro et al. (2010)). The other stand is to interpret the behavioral and neuroimaging differences as a consequence of the different semantics involved (i.e., visual-object processing for nouns and motor processing for verbs (cf. Pulvermüller et al. (1999), Bird et al. (2000)). Admittedly, these questions are not new but in our opinion by approaching them from new theoretical, interdisciplinary and experimental perspectives and / or by working on understudied languages we can get new interesting insights.

We plan to invite distinguished scholars whose recent work has given rise to new, often controversial discussions. Ideally, the invited talks will be supplemented by a few selected papers contributing new facts and new formal approaches to the topics under discussion in specific thematic panels.

### Specific thematic panels

#### Panel 1: Cross-linguistic variation in the syntax and semantics of Tense / Aspect / Modality and universal patterns of their interaction

**More specific questions:**
- How much freedom is there in the semantic and syntactic variation of Tense, Aspect and Modality?
- What are the parameters along which such variation is organized?
- Can any universal patterns of the interaction between Tense, Aspect and Modality (e.g., in the actuality entailment) be observed?

**Invited talks:**
- Valentine Hacquard (University of Maryland)
- Malte Zimmermann (University of Potsdam)

#### Panel 2: What is future?

**More specific questions:**
- Is future a separate category (e.g., a modal or a temporal category) or is it a combination of other categories (e.g., tense and aspect)?
- Why do we observe so much diversity in the expression and interpretation of future cross-linguistically?
- Can any robust universal generalizations with respect to futurity be made in spite of this diversity?

**Invited talks:**
- Bridget Copley (CNRS and Université Paris 8)
- Anastasia Giannakidou (University of Chicago)

#### Panel 3: What is subjunctive?

**More specific questions:**
- Is subjunctive a separate category (e.g. a modal or a temporal category) or is it a combination of other categories?
- What defines subjunctive? (Is it its special morphology or semantics or is it its dependence on the matrix clause, etc.?)
- Why do we observe so much diversity in the expression and interpretation of subjunctive mood cross-linguistically?
- Can any robust universal generalizations with respect to subjunctive be made in spite of this diversity?

**Invited talks:**
- Anastasia Giannakidou (University of Chicago)
- Martina Wiltschko (University of British Columbia)
Panel 4: How compositional is the composition of temporal meaning?

More specific questions:
- How can the problem of aspectual coercion be accounted for?
- Should coercion be treated uniformly or should we rather assume different types of coercion?
- What can psycholinguistic experiments contribute to this problem?
- Are psycholinguistic results compatible with a strictly compositional view?

Invited talks:
Henriëtte de Swart (Utrecht University)
Oliver Bott (University of Tübingen)
Manfred Krifka (ZAS and Humboldt-University of Berlin)

Panel 5: How can cartographic, feature-based, scalar and experimental approaches contribute to our better understanding of categories?

More specific questions:
- How categorical are the traditional categories? – Discreteness vs. scalability
- What is the definition of finiteness? (especially in the connection with subjunctive)
- What can neurolinguistics (e.g., research on aphasia) contribute to our understanding of cartography/strict hierarchy of functional projections?
- How categorical is the noun-verb distinction?
- Are there any new experimental results relating to the above questions?

Invited talks:
Roumyana Pancheva (University of Southern California)
Martin Haspelmath (Max Planck Institute for Evolutionary Anthropology, Leipzig)
Mark C. Baker (Rutgers University)

Poster session

There is a preliminary plan to organize a poster session as well depending on the quality of submissions.

We invite papers relating to one of the following issues:

(i) If the relevant categories are discrete (e.g. cf. Baker (2003)) what definitional properties should they be associated with, how should definitional properties be modified in view of the growing empirical domain (e.g., polysynthesis as the relevant diagnostic for verb vs. noun distinction)?

(ii) If the categories are not discrete, should they (i) be subsumed under broader discrete categories (e.g., Tense and Aspect as two instantiations of one category related to temporal anchoring of events); or (ii) interpreted as epiphenomenal (i.e., consisting of a number of primitive nano-features? The latter view is especially popular in the recent nanosyntactic approach (cf. Starke (2009)) relying on cartography or in the semantic map approach in the functional literature (cf. Haspelmath 2000).

(iii) If the categories are not discrete and epiphenomenal, what theoretical model is most adequate and restrictive to capture the empirical data?

(iv) Can experimental psycholinguistic work provide evidence of the categorical kind (e.g., involvement of a specific cortical region and lack thereof for a category X and Y respectively) or only gradual kind (e.g., modulation of a given ERP component)?

(v) In what way can comparative experimental work contribute to our understanding of different categories (e.g., processing of Person inflected verbs in language X vs. Y, or processing of Future in language X vs. Y)?

Cited references


**TABLE OF CONTENTS**

**PROGRAMME** .......................................................... 5

**PANEL 1** ........................................................................ 8

**CROSS – LINGUISTIC VARIATION IN THE SYNTAX AND SEMANTICS OF TENSE / ASPECT / MODALITY AND UNIVERSAL PATTERNS OF THEIR INTERACTION** .......... 8

**WILL, WERE AND WOULD BE: (NON-)CATEGORICAL TAM-CODING IN WEST AFRICAN LANGUAGES AND BEYOND** ................................................................. 9

Malte Zimmermann ......................................................... 9

**IMPERATIVE MOOD AS A FUNCTIONAL SENTENCE-TYPE** .......... 9

Mark Jary, Mikhail Kissine ............................................... 9

**ON TENSED MODALS IN POLISH** .................................. 10

Łukasz Jędrzejowski ...................................................... 10

**MODALS: MEANING CATEGORIES** .................................. 10

Valentine Hacquard ....................................................... 12

**WHAT IS FUTURE?** .......................................................... 12

Bridget Copley ............................................................. 12

**ON THE DIVERSITY OF FUTURE REFERENCE** ..................... 13

**THE CATEGORY OF TENSE IN THREE DIMENSIONS: THE CASE OF POLISH SIGN LANGUAGE** ........................................................ 13

Paweł Rutkowski, Joanna Lacheta, Sylwia Łozińska And Piotr Mostowski 14

**THE FUTURE IN GREEK AND ITALIAN: EPISTEMIC MODALITY WITH EVIDENTIAL COMPONENT** .............................................................. 15

Anastasia Giannakidou .................................................... 15

**PANEL 3** ........................................................................ 15

**WHAT IS SUBJUNCTIVE?** .................................................. 15

**THE ESSENCE OF A CATEGORY. LESSONS FROM THE SUBJUNCTIVE** .................................................. 16

Martina Wiltschko .......................................................... 16

**APPROACHING THE MORPHOSYNTAX AND SEMANTICS OF MOOD** ........................................................ 16

Ilse Zimmermann ............................................................ 16

**ON FINITENESS – FOCUSING ON SUBJUNCTIVE** ................. 16

Manuela Ambar .............................................................. 17

**EVALUATIVE SUBJUNCTIVE, WEAKENING EFFECT, AND NONVERIDICALITY** ..... 17

Anastasia Giannakidou .................................................... 19

**PANEL 4** ........................................................................ 19

**HOW COMPOSITIONAL IS THE COMPOSITION OF TEMPORAL MEANING?** .......... 19

**THE PROCESSING OF EVENTS – A PSYCHOLINGUISTIC INVESTIGATION INTO ASPECTUAL COERCION** .......................................................... 20

Oliver Bott ................................................................. 20

**ASPECTUAL COERCION, ITERATIVITY, AND SCOPE** ............. 20

Ariel Cohen ................................................................. 20

**FUZZY BORDERS OF ASPECTUAL CATEGORIES** .................. 21

Henriëtte De Swart ......................................................... 21

**GERMANIC TENSE IS COMPOSITIONAL: A VIEW FROM NORWEGIAN** .......... 22

Kristin Møtum Eide ...................................................... 22

**THE MEREOLOGICAL STRUCTURE OF NOUN AND VERB MEANINGS** .......... 23

Manfred Krifka ............................................................. 23

**GRAMMATICAL CATEGORIES IN THE MIND/Brain** ............... 23

Roumyana Pancheva ...................................................... 23


## PROGRAMME

### Monday, 7 January

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Location</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8h30 – 9h15</td>
<td>Registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9h15</td>
<td>Opening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9h20 – 10h20</td>
<td>PANEL 1</td>
<td>Chair: Dorota Klimek-Jankowska</td>
<td>(Non)categorical TAM-coding in West African languages and beyond</td>
</tr>
<tr>
<td>10h20 – 11h00</td>
<td>PANEL 1</td>
<td>Mark Jary and Michel Kissine</td>
<td>Roehampton University and Université Libre de Bruxelles</td>
</tr>
<tr>
<td></td>
<td>Invitation talk:</td>
<td>Valentin Hacquard</td>
<td>Imperative mood as a functional sentence-type</td>
</tr>
<tr>
<td>11h00 – 11h30</td>
<td>Coffee Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11h30 – 12h10</td>
<td>PANEL 1</td>
<td>Łukasz Idrzejewski</td>
<td>ZAS / Berlin</td>
</tr>
<tr>
<td></td>
<td>Invitation talk:</td>
<td>On tensed modals in Polish</td>
<td></td>
</tr>
<tr>
<td>12h10 – 13h10</td>
<td>PANEL 1</td>
<td>Chair: Joanna Blaszczak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Invitation talk:</td>
<td>Valentine Hacquard</td>
<td>University of Maryland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Modals: meaning categories?</td>
</tr>
<tr>
<td>13h10 – 15h00</td>
<td>Lunch Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15h00 – 16h00</td>
<td>PANEL 2</td>
<td>Chair: Joanna Blaszczak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Invitation talk:</td>
<td>Bridget Copley</td>
<td>CNRS and Université Paris</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On the diversity of future reference</td>
<td></td>
</tr>
<tr>
<td>16h00 – 16h40</td>
<td>PANEL 2</td>
<td>Ciro Greco</td>
<td>University of Milan – Bicocca</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Putting present and future tense together</td>
</tr>
<tr>
<td>16h40 – 17h10</td>
<td>Coffee Break</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Panel 1: Categorical Ambiguities**
- Olga Steriopolo
- Fanni Karácsony
- Alireza Dehbozorgi
- A latealized Modular Approach to Linguistic Categorization and Linguistic Categories
- Discreteness and Gradience as Co-Operating Techniques in Modelling a Language
- Comparison of Degrees or Individuals? Focus Effects in Superlatives
- Barbara Tomaszwiezic
- Bożena Cetmarowska
- Is “Expressivity” A Separate Category?
- Is “Expressivity” A Separate Category?
- Is “Expressivity” A Separate Category?
- Is “Expressivity” A Separate Category?
- Is “Expressivity” A Separate Category?
<table>
<thead>
<tr>
<th>Time</th>
<th>Panel</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
</table>
| 17h10 – 17h50 | PANEL 2 | Pawel Rutkowski, Joanna Łacheta, Sylwia Łozińska and Piotr Mostowski | University of Warsaw  
The category of tense in three dimensions: The case of Polish Sign Language |
| 17h50 – 18h50 | PANEL 2 | Invited talk:  
Anastasia Giannakiodu | University of Chicago  
The future in Greek and Italian: Epistemic modality with evidential component |
| 8h30 – 9h20 | Registration | | |
| 9h20 – 10h20 | PANEL 3 | Invited talk:  
Martina Wiltschko | University of British Columbia  
The essence of a category. Lessons from the subjunctive |
| 10h20 – 11h00 | PANEL 3 | Ilse Zimmermann | Potsdam  
Approaching the morphosyntax and semantics of mood |
| 11h00 – 11h30 | Coffee Break | | |
| 11h30 – 12h10 | PANEL 3 | Manuela Ambar | University of Lisbon  
On finiteness – focusing on subjunctive |
| 12h10 – 13h10 | PANEL 3 | Invited talk:  
Anastasia Giannakiodu | University of Chicago  
Evaluative subjunctive, weakening effect, and nonveridicality |
| 13h10 – 15h00 | Lunch Break | | |
| 15h00 – 16h00 | PANEL 4 | Invited talk:  
Oliver Bott | University of Tübingen  
The Processing of Events – A Psycholinguistic Investigation into Aspectual Coercion |
| 16h00 – 16h40 | PANEL 4 | Ariel Cohen | Ben-Gurion University of Negev  
Aspectual coercion, iterativity, and scope |
| 16h40 – 17h10 | Coffee Break | | |

**Tuesday, 8 January**
**POSTER SESSION**

**POSTER 1**
Fanni Karácsony  
Eötvös Loránd University, Budapest  
*Beyond the borders of categories: A functional approach to the parts of speech conception*

**POSTER 2**
Alireza Dehbozorgi  
Tarbiat Modares University  
*A lateralized modular approach to linguistic categorization and linguistic categories*

**POSTER 3**
Jan Křivan  
Charles University in Prague  
*Discreteness and gradience as co-operating techniques in modelling a language*

**POSTER 4**
Joanna Błaszczak, Patrycja Jabłońska, Dorota Klimek – Jankowska, Krzysztof Migdalski  
University of Wrocław  
*An ERP study on aspectual coercion in converbial context in Polish*

**POSTER 5**
Barbara Tomaszewicz  
University of Southern California  
*Comparison of degrees or of individuals? Focus effects in superlative*

**POSTER 6**
Bożena Cetnarowska  
University of Silesia  
*Categorial ambiguities within the noun phrase*

**POSTER 7**
Olga Steriopolu  
University of British Columbia  
*Is “expressivity” a separate category?*

---

**Monday, 8 January**

17h10 – 18h45

**POSTER SESSION**

**POSTER 1**
Fanni Karácsony  
Eötvös Loránd University, Budapest  
*Beyond the borders of categories: A functional approach to the parts of speech conception*

**POSTER 2**
Alireza Dehbozorgi  
Tarbiat Modares University  
*A lateralized modular approach to linguistic categorization and linguistic categories*

**POSTER 3**
Jan Křivan  
Charles University in Prague  
*Discreteness and gradience as co-operating techniques in modelling a language*

**POSTER 4**
Joanna Błaszczak, Patrycja Jabłońska, Dorota Klimek – Jankowska, Krzysztof Migdalski  
University of Wrocław  
*An ERP study on aspectual coercion in converbial context in Polish*

**POSTER 5**
Barbara Tomaszewicz  
University of Southern California  
*Comparison of degrees or of individuals? Focus effects in superlative*

**POSTER 6**
Bożena Cetnarowska  
University of Silesia  
*Categorial ambiguities within the noun phrase*

**POSTER 7**
Olga Steriopolu  
University of British Columbia  
*Is “expressivity” a separate category?*

---

19h00 – 22h00

**Dinner**

Venue:
University of Wrocław, Oratorium Marianum Music Hall, Uniwersytecki Square no. 1 (the main university building (the ground floor))

---

**Wednesday, 9 January**

8h30 – 9h00

**Registration**

Chair: Bożena Rozwadowska

9h00 – 10h00

**PANEL 4**
Invited talk: Henriëtte de Swart  
UiL OTS, Utrecht University  
*Fuzzy borders of aspectual categories*

10h00 – 10h40

**PANEL 4**
Invited talk: Kristin Melum Eide  
Norwegian University of Science and Technology, Trondheim  
*Germanic tense is compositional: A view from Norwegian*

10h40 – 11h10

**Coffee Break**

11h10 – 12h10

**PANEL 4**
Invited talk: Mafred Krifka  
ZAS and Humboldt-University of Berlin  
*The mereological structure of noun and verb meanings*

12h10 – 13h10

**PANEL 5**
Invited talk: Roumyana Pancheva  
University of Southern California  
*Grammatical categories in the mind/brain*

13h10 – 15h00

**Lunch Break**

15h00 – 16h00

**PANEL 5**
Invited talk: Martin Haspelmath  
Max Planck Institute for Evolutionary Anthropology, Leipzig  
*Categories for speakers and the challenge of cross-linguistic comparison*

16h00 – 16h40

**PANEL 5**
Invited talk: Heidi Klockmann  
UiL OTS, Utrecht University  
*What are categories? Adjective-like and noun-like semi-lexical numerals in Polish*

16h40 – 17h10

**Coffee Break**

17h10 – 17h50

**PANEL 5**
Invited talk: Benjamin Braithwaite  
University of the West Indies  
*How categorical are the categories noun and verb in Nuu-chah-nulth?*
PANEL 5
Invited talk:
Mark C. Baker
Rutgers University
Nouns, verbs, and verbal nouns: Their syntactic structures and structural cases

PANEL 1
CROSS – LINGUISTIC VARIATION IN THE SYNTAX AND SEMNATICS OF TENSE / ASPECT / MODALITY AND UNIVERSAL PATTERNS OF THEIR INTERACTION
Picking up on the leitmotiv of the conference “How categorical are the traditional distinctions between grammatical categories and how categorical is their semantics?”, this talk investigates the categorization of mood, tense, and aspect in two West African languages, Hausa (West Chadic) and Medumba (Grassfield Bantu). In many languages, the analysis of grammatical markers as markers of aspect, or tense, or mood, is complicated by the following facts: (i.) the underlying semantic concepts often involve the same semantic primitives. For instance, the anteriority relation ‘<’ is the defining characteristic of both past tense (topic time < utterance time, Klein 1994) AND perfect aspect (event time < topic time, Klein 1994); (ii.) the same grammatical marker can denote into more than one semantic domain. For instance the auxiliary will denotes into the domains of mood (epistemic necessity) and tense/aspect (topic time < event time; Tonhauser 2011).

Drawing heavily on data and analysis in Mucha (2012), I first argue that Hausa does allow for a clear distinction between aspect and future mood because tense-distinctions are not grammatically coded in the language. As a result, markers of aspect and mood are structurally and semantically distinct. Moreover, Hausa transparently codes the two central meaning components cross-linguistically associated with ‘future markers’, i.e. the modal shift to stereotypically/bouletically accessible possible worlds (e.g. Enc 1996, Copley 2009) and the precedence relation between topic time and event time, in form of two separate morphemes.

In a second step, we investigate to what extent a categorical distinction between different TAM-markers is possible in Medumba, which is described as a language with multiple past tense and future tense distinctions in the literature (Ngannou 1991). Drawing on Cable’s (t.a.) recent treatment of Kikuyu, we explore the possibility that many of the alleged past and future tense markers in Medumba are really adverb-like in narrowing down the temporal intervals denoted by more basic tense morphemes.

Time allowing, we also take a brief look at the TAM-system of German, in which a clear distinction of the three categories is hindered by the fact that the relevant semantic concepts are expressed by a combination of grammatical AND lexical factors, most of which are coded on the finite verb. As a result, German surface realizations appear to be more flexible in their TAM-interpretation than their counterparts in other grammatically tensed languages.

References
Cable, S. (t.a.). Beyond the Past, Present and Future: Towards the Semantics of 'Graded Tense' in Gikuyû. Natural Language Semantics.

Defining grammatical categories in functional (and non-circular) terms often proves a vexing task. However, such an analytical standpoint is clearly available and promising for the imperative mood. Our talk is articulated around four ideas:

(A) The imperative mood is defined as a sentence-type whose prototypical function is the performance of directive speech acts, and which is not prototypically associated with the performance of another major speech act-type;
(B) A directive speech act with the content p is defined as an utterance which is aimed at making mutually manifest that the speaker is providing the addressee with a (non-necessary effective) reason to bring about the truth of p;
(C) The imperative mood has distinctive semantic properties:
   a. Its subject has to be the semantic role of agent;
   b. Its content has to be 'potential' with respect to the common ground. That is, the common ground cannot rule in nor rule out the content of an imperative sentence;
(D) The functional definition of the imperative mood allows to explain these properties in cognitive terms and,

(E) It yields intuitively correct predictions about languages with no imperative and about non-directive uses of the imperative.

(A) Our definition of the imperative mood entails three desirable consequences. First, the imperative mood does not encode directive illocutionary force; it is a form prototypically associated with an illocutionary function. Second, the imperative is a sentential category, and is not restricted to verbal mood. Accordingly, even languages with relatively poor (verbal) morphology may be seen as having imperative mood (e.g. Canela-Krahô or Cambodian). Third, there are languages that have no imperative mood, because there is no sentence-type which is prototypically associated with directive speech acts and associated with no other (major) speech act-type (such as, for instance, assertions about the future). Some such languages have no verbal morphology (e.g. Kayah Li or Rapanui), but some others do (e.g. Nunggubuyu).

(B) Our definition of directive force in terms of reasons to act predicts that permission and advice are directive speech acts (and thus can be performed with imperative sentences).

(C) The semantic properties of imperatives are well-known. The subject of the imperative must include the addressee, even if it is third-person, as in (1).

(1) Someone lend your pencil to John.

The situation described by the imperative must have the addressee as agent; stative verbs are coerced into a dynamic reading.

(2) You're about to write a story that says that the former Attorney General — the man who represented law in America — is a crook. (throws the nerfball) Just be right, huh?

(www.dailyscript.com/scripts/all_the_presidents_men.html)

The imperative is limited to representing potential states of affairs, given some information set against which potentiality can be established. This constraint applies even in uses of the imperative that are not clearly directive. For instance (3) can be uttered when one’s partner comes back with a sotry look, but not in front of a wrecked car.

(3) Don’t have crashed that car again!
The mental representation in creatures capable of genuine action planning requires at least two formats: one to ‘accept’ as information and another to recruit as goals. The second format consists in representations that are neither ruled in nor ruled out by what the organism believes at the time. Here is a simplified diagram of such a cognitive system.

![Diagram of Cognitive System]

Given any representational input, the system needs to decide in which format it should be entertained. Communicators can help by cueing the system towards one format or the other. To cue the system towards the ‘belief’ format, one should provide a form that can serve as a premise. To cue the system towards the ‘potential action’ format, one should use a form that cannot serve as a premise, and that that encodes dynamicity. Uttering an imperative sentence cues the tokening of a ‘potential action’ type representation. This makes a form that represents a potential action — an imperative — apt as means of performing a directive speech act.

Although our analysis predicts that imperatives are optimally suited for the performance of directive speech acts, it doesn’t predict that every language should have a form with such semantic properties. What it does predict is that languages without a specific imperative sentence-type would rely on forms that have some properties that would help trigger the ‘potential action’ format. One attested tendency in languages with no imperative mood is to use irrealis/subjunctive forms specialised in representing hypothetical/potential situations (e.g. Nunggubuyu, Manam, Lingala). Another tendency is to use future reals (e.g. Rapani, Jamul Tiipay) or forms that tend to emphasise agency (aorist in Georgian or present imperfective in Salve).

Our account also informs analyses of non-directive uses of the imperative. Although imperative sentences combine potentiality with subject-agency, it is expected that they may shift towards uses where one of these two semantic features is privileged and the other one is lost. For instance, in good wishes or matters of potentiality is lost. Expectedly, languages vary as their permissibility to relax semantic constraints on imperatives.

(D) The mental representation in creatures capable of genuine action planning requires at least two formats: one to ‘accept’ as information and another to recruit as goals. The second format consists in representations that are neither ruled in nor ruled out by what the organism believes at the time. Here is a simplified diagram of such a cognitive system.

![Diagram of Cognitive System]

Given any representational input, the system needs to decide in which format it should be entertained. Communicators can help by cueing the system towards one format or the other. To cue the system towards the ‘belief’ format, one should provide a form that can serve as a premise. To cue the system towards the ‘potential action’ format, one should use a form that cannot serve as a premise, and that that encodes dynamicity. Uttering an imperative sentence cues the tokening of a ‘potential action’ type representation. This makes a form that represents a potential action — an imperative — apt as means of performing a directive speech act.

(E) Although our analysis predicts that imperatives are optimally suited for the performance of directive speech acts, it doesn’t predict that every language should have a form with such semantic properties. What it does predict is that languages without a specific imperative sentence-type would rely on forms that have some properties that would help trigger the ‘potential action’ format. One attested tendency in languages with no imperative mood is to use irrealis/subjunctive forms specialised in representing hypothetical/potential situations (e.g. Nunggubuyu, Manam, Lingala). Another tendency is to use future reals (e.g. Rapani, Jamul Tiipay) or forms that tend to emphasise agency (aorist in Georgian or present imperfective in Salve).

Our account also informs analyses of non-directive uses of the imperative. Although imperative sentences combine potentiality with subject-agency, it is expected that they may shift towards uses where one of these two semantic features is privileged and the other one is lost. For instance, in good wishes or matters of potentiality is lost. Expectedly, languages vary as their permissibility to relax semantic constraints on imperatives.
ON TENSED MODALS IN POLISH
Łukasz Jędrzejowski
ZAS, Berlin

Introduction: While in the last two decades many analyses have been advocated for a unified treatment of modal verbs (henceforth: MVs) in Germanic and Romance languages (Butler 2004, Hacquard 2006, Piccallo 1990, Zagona 2008), little attention has been paid to MVs in Slavonic languages. In this talk, I examine MVs in Polish (móc ‘can, may, might’, mieć ‘must, have to, be supposed’, musieć ‘must, have to’, powinien ‘should, be supposed’) and their distributional properties in different temporal environments, showing that they do not behave the same way as their Germainc and Romance counterparts do. The main focus will be on sentences that are evaluated against a non-circumstantial modal base.

Background: Modals as quantifiers over different sets of worlds are mainly defined as polyfunctional elements. Following Kratzer (1977, 2012), every MV possesses a single lexical entry and its disambiguation is due to the quantificational force (existential vs. universal), the modal base (circumstantial vs. epistemic), and the conversational background (bouletic, deontic, doxastic, etc.).

Syntactically, received wisdom has it that whereas circumstantial MVs are supposed to be merged below T, their epistemic/evidential counterparts are universally interpreted in a structural position higher than T (Cinque 1999, Hacquard 2006, 2009, 2010, Stowell 2004, among many others):

1. Mood\_evidential > Mod\_epistemic > T\_past > T\_future
2. T\_past > T\_future > Mod\_necessity > Mod\_possibility > … > Mod\_volitional

Puzzle: Following the rigid hierarchy of Functional Projections outlined above, Polish epistemic as well as evidential MVs are supposed to combine neither with any analytic past tense form nor with the future tense. Polish, however, deviates from this picture and allows, regardless of the modal base of the particular MV (circumstantial vs. epistemic), every kind of temporal embedding. This is exemplified for the epistemic usage of musieć (‘must’). Whereas in (3) it combines with the future tense (future auxiliary + MV + INF), it can also go along with every past tense form, in (4) with the simple past, in (5) with the pluperfect, in (6) with the passive-like suffix -no, that always denotes a past event if it is not embedded under volitional predicates, and in (7) with the so-called possessive perfect (Serżant 2012):

3. PO będzie musiała w końcu zacząć popełniać błędy
   PO will.3SG must.SG.F-PTCP finally begin.INF make.INF mistakes.ACC
   ‘(I suppose that) the Civic Platform (= political party) will finally make some mistakes.’
   (NKJP, Dziennik Zachodni, 2008/10/09)

4. Nieopodal musiała istnieć większa osada
   nearby must.SG.F-PTCP exist.INF bigger settlement
   ‘There must have been a bigger settlement nearby.’
   (NKJP, Gazeta Wrocławska, 2003/10/24)

5. Ulewa musiała być przejścia
   downpour.NOM must.SG.F-PTCP was.3SG.F pass.INF
   ‘A downpour must have been passed.’
   (NKJP, Popiól i Diament, 1995)

6. O tych wydarzeniach musiano wiedzieć w Polsce
   about these events.LOC must+INF know.INF in Poland
   ‘There must have known about these events in Poland.’
   (NKJP, Dynastia Piastów w Polsce, 2005)
In many languages, the same modal words are used to express epistemic and root modality. When they do, these modals tend to interact with tense and aspect in systematic ways, based on their interpretation: epistemics tend to scope above tense and aspect, roots tend to scope below tense and aspect. Why should this be? Is this pattern accidental, or a consequence of grammar or meaning?

Epistemic modals share clear meaning components with verbs and adjectives that express epistemic attitudes (seem, know, think, possible, certain…); root modals share clear meaning components with verbs and adjectives that express abilities or deontic and buletic attitudes (able, want, obligatory…). Yet, these elements appear not to be subject to the same constraints as modals in their interactions with tense and aspect.

This talk explores the relationship between epistemic and root modals, and between modals and related categories (e.g., attitude verbs and adjectives, evidentials). What do modals and attitude verbs and adjectives have in common, and how do they differ? Why do modals interact the way they do with tense and aspect? What are these interactions due to, and how universal are they? What makes a modal ‘modal’, and is there such as thing as a modal ‘category’?

---

**PANEL 2**

**WHAT IS FUTURE?**
There is a great deal of variation in future reference, both in terms of morphology (from dedicated future morphology, to future orientation associated with other morphology, to future orientation apparently associated with no morphology), as well as in terms of meaning (aspectual variation related to the argument accessibility relation, the futurate/future distinction, other as yet unexplained distinctions). Current semantic models are likely to need to be re-evaluated with respect to this diversity of means of future reference. I argue that an assumption that the semantic models of particular languages are compatible with each other need not necessarily be given up in order to account for the variation. On the other hand, semantic models must be enriched with causal relations between events for at least the futurate cases of future orientation.
On the other hand, present tense can be used to refer to non-plannable eventualities in some cases:

(7) Domani piave.
    It rain-PRES tomorrow

(8) Il Milan VINCE domani.
    A.C. Milan win-PRES tomorrow

The upper case in (8) indicates that a slightly marked intonation is required to convey this interpretation. Data in (4-8) shows that previous generalizations are too restrictive. On the one hand, future tense does not always involve epistemicity ((4-6)), on the other hand, future – oriented present tense does not always behave as a future in the sense of Copley (2009) (cf. 7-8).

The proposal. We propose that both future and present tense are universal quantifiers over metaphysical alternatives. Future tense can optionally have an epistemic/bouletic/inertial ordering source:

(9) [[FUT][w, t, f, g, p = 1 iff w' ∈ MB V w' ∈ Best g(w, t)(MB); \[∃t' ∈ [t, x] & p(w')(t')]]).

If an epistemic ordering source is contextually specified, the function Best picks up the set of metaphysical alternatives, accessible from w at t, which fits best with the epistemic evidences available at w at t (cf.(2)). If a bouletic ordering source is contextually specified, Best picks up the set of metaphysical alternatives, accessible from w at t, which fits best with the speakers desires available at w at t (cf. (4)). If an inertial ordering source is contextually specified, Best picks up the set of metaphysical alternatives, accessible from w at t, which fits best with the normal course of events in w at t (cf. (6)). If no ordering source is specified, the future tense simply quantifies over metaphysical alternatives (cf.(5)). We roughly adopt the proposal that future reference can be achieved when overt (or covert) temporal adverbs are present and when the speaker has direct evidence at the evaluation time t that either p or not p is true at the evaluation time (Giannakidou and Mari (2012)).

On the other hand, we propose that the present tense is a defective tense, similarly to other imperfective forms (Giorgi & Pianesi 2004, Bonomi 2010). Therefore, it can only be interpreted with an ordering source restricting the modal quantification. Crucially, ordering sources for the present tense can also be epistemic (cf. (7-8)). When the ordering source is inertial the present tense can be interpreted either as a progressive or as future tense (cf. (3)). Again, future orientation can be achieved when overt (or covert) temporal adverbs are present and when the speaker has direct evidence at the evaluation time t that either p or not p is true at the evaluation time.

References:


Mari, A. 2010. On the modal meaning of Italian future tense. MS. IJN.

THE CATEGORY OF TENSE IN THREE DIMENSIONS: THE CASE OF POLISH SIGN LANGUAGE

Paweł Rutkowski, Joanna Lacheta, Sylwia Lozińska And Piotr Mostowski

University of Warsaw, Poland

This paper gives an overview of how temporal information is conveyed in Polish Sign Language, a full-fledged natural language used by the Deaf community in Poland. The most important generalization that we want to present is that the temporal interpretation of signed utterances is indicated by spatial cues. Our research is based on video material selected from an extensive corpus of Polish Sign Language, consisting of utterances produced by signers who either have Deaf parents or have used sign language since early childhood. The informants are asked to react to certain visual stimuli, e.g. by describing a picture or discussing a video recording. This material includes many examples of how the human mind is able to move from one kind of cognitive relationship into another. In particular, we want to show that, similarly to many other sign languages, TIME becomes SPACE in Polish Sign Language.

The proper temporal interpretation of signed utterances hinges upon both linguistic and world knowledge cues. We present numerous examples showing that if a sign is produced in the neutral position in front of the body, its temporal interpretation is underspecified. However, if the spatial location of the sign is moved backward (toward the signer’s shoulder), the interpretation changes to past tense. On the other hand, future tense is indicated by moving forward away from the body. Interestingly, the notions of past and future may be intensified: if a backward/forward movement is more dynamic, its meaning changes to “a LONG time past” or “a LONG time in the future”, respectively. This correlation between time and space may be referred to as the ‘time line’ (BEHIND THE BODY = PAST, NEUTRAL POSITION = PRESENT, IN FRONT OF THE BODY = FUTURE). The time line (i.e. an abstract line within the signing space that represents the flow of time) forms the basis of temporal relations both within a sentence and at the discourse level.

One of the most important characteristics of the grammatical system of PJM is that it is driven by ever present iconicity. This term is meant to refer to the situation in which the form of a linguistic structure conveys the desired meaning by somehow resembling the denotation. Visual iconicity has received a lot of attention from scholars working on sign languages (see e.g. Taub (2001)). Corrimer (2007) treats the phenomenon in question as a manifestation of a more general property of sign languages, which she refers to as isomorphism, i.e. a close relationship between form and meaning. Although the fact that numerous grammatical phenomena of sign languages are motivated iconically is not questioned by modern linguistics, it is not uncontroversial to what extent iconicity should be viewed as one of the defining features of sign communication. The aim of this paper is to present examples of the influence of iconic motivation on the syntactic structure of PJM and its grammatical categories.

Key references:

In this talk (based on joint work with Alda Mari, IJN), I present an analysis of future morphemes in Greek and Italian as epistemic modal operators with an evidential component in them. In the absence of specific temporal information, the future morphemes access indirect evidence at the utterance time. The future interpretation arises as a case of temporal domain restriction with a future adverbial. This analysis offers a relatively simple account of both epistemic and future readings of the future morphemes, and, among other things, opens the question of whether it would be plausible to reduce all futures to epistemic modality. If it turns out that epistemic modality is sufficient to account for the future in general, then the category ‘future’ by itself becomes redundant—and with it the notion of metaphysical modality that is meant to describe it.

**PANEL 3**

**WHAT IS SUBJUNCTIVE?**
The essence of a category. Lessons from the subjunctive

Martina Wilschko
The University of British Columbia

The notion of a universal functional category has come under attack from both the typological perspective as well as from some minimalist conceptualizations of phrase-structure within the generative enterprise. The former view denies the existence of (formal) universal categories (Haspelmath 2007, Evans & Levinson 2009); the latter denies the existence of categorical labels in syntactic structures (Chomsky 1995, Collins 2002). In this talk I wish to defend the notion of a universal (functional) category. But I will argue that universal functional categories are not to be defined based on word class, morphological type or substantive content. These notions are necessarily language specific. Instead, universal grammar makes available a set of core functions such as classification, anchoring, discourse linking which may in turn be associated with different substantive content.

The subjunctive provides us with crucial evidence for this view on categories: it instantiates a category that cannot be defined based on substantive content. Instead I argue that it is best analyzed as an anchoring category (a.k.a INFL) which is not associated with substantive content.

To formalize this idea, I adopt the formalism of Demirdache & Uribe-Etxebarria 1997 (and subsequent work) and assume that the essence of the anchoring category in a tense-based language is to relate the event-and reference-time to the utterance time. However, I shall make two modifications to their approach. First, in the absence of substantive content, the arguments that are related to each other are not times but situations (Ritter & Wilschko 2011). Second, the utterance situation is only available in root clauses; in embedded contexts the situation relative to which the event situation is ordered is anaphorically related. Thus, I propose that the abstract situation argument in specIP is a pronominal situation (Pro-Sit): in the absence of an appropriate antecedent Pro-sit is deictically anchored. But in the presence of a c-commanding antecedent Pro-sit is anaphorically anchored. Ordering comes about via an unvalued coincidence feature in I. This feature may be valued via internal merge, external merge, or via the association with a higher head (lexical or functional).

I further discuss independent evidence for the claim that the anchoring category may remain without substantive content. Specifically, I argue that the nominal equivalent of subjunctive is case.

The empirical basis I draw upon comes from the subjunctive in Blackfoot, Halkomelem (Salish), and Austrian German.

Approaching the morphosyntax and semantics of mood

Ilse Zimmermann
Associated scientist of The ZAS, Berlin

Within a minimalist framework of sound-meaning correlation, I will try to articulate my hypotheses on the difference of sentence mood and verbal mood. This talk concentrates on assertions with the indicative resp. subjunctive mood in Russian, as shown in (1)-(2).

(1) V Potsdame vosstanavlivaetsja gorodskoj dvorec.
in Potsdam is.being.repaired town castle

(2) Pri GDR bya gorodskoj dvorec ne vosstanavlivaetsja bya during GDR woulda town castle not be.being.repaired woulda

While the indicative is expressed by an inflectional affix the subjunctive is composed of the preterital affix et and the clitic particle by. I will show how the involved lexical entries and syntactic configurations determine the modal interpretation of sentences.

Syntactic representations are of purely syntactic nature. For clauses, I assume the following hierarchical domains.

(3) CP MoodP TP PolP vP VP

CP characterizes the various sentence types (BRRZ 1992, Zimmermann 2009, 2010, to appear). In PolP, the decision between affirmation and negation takes place. As for aspect, I assume that it is delivered by the verb.

As regards morphology, I adhere to a conception according to which the lexicon brings in fully derived and inflected word forms. Thus, the finite verb in (1) will be represented in the lexicon with its word structure, morphosyntactic categorization and semantics, as indicated in (4).

(4) $\left[\text{v}_{\text{max}} \left[\text{v}_{\text{max}} \left[\text{v} \left[\text{v} \left[\text{stanavl'iv} \right]\text{iu}\right]\text{et}\right]\text{ja}\right]ight]+\text{V} \rightarrow \text{N}-\text{pf}-\text{pret}-\text{imp-subj}$

As in Pitsch (2012), inflectional affixes are considered as shadows of their meaning represented as functional zero heads. These heads c-command the finite verb form and select certain of its morphosyntactic features. While (5) represents the lexical entry of the suffix et in the word structure (4), the functional zero heads (6) and (7) deliver the meaning.

(5) et'\text{; }\text{pret}-%\text{imp-subj}+\text{max}$\lambda P_c \text{V} \rightarrow \text{N}-\text{max} \lambda x_c \rightarrow \text{II}, \text{pf} \lambda e \left[\text{P x e}\right]$

The suffix et selects a verb stem, adds the features pret, imp, subj, +max to it and agreement features to the external argument position.

(6) t\text{; }\text{pret}-%\text{imp-subj} \lambda P_c \text{pret}-\text{imp-subj} \lambda x_c \left[\left[\text{t} < \text{t}^0\right]\land \left[\text{P t}\right]\right]$

(7) t\text{; }\text{Mood}-%\text{imp-subj} \lambda P_c \text{imp-subj} \lambda x_c \left[\left[\text{P e t}\right]\right]$

The functional zero head +T selects a non-preterital indicative complement whose highest argument refers to the topic time and relates it to the utterance time. The functional zero head
+Mood selects an indicative complement, blocks its topic-time argument position, and results in an intensional unit of type <s,t>.

The functional category +C characterizes the sentence mood. The feature force differentiates between root and embedded clauses. For assertions, the lexical entry is (8).

(8) /fl; +C+force–quest–command; λp,Mood–imp ^ASSERT ^p

This non-interactive, non-command zero head extensionalizes its propositional complement and characterizes the illocutionary type of the sentence as assertion of type <s,a> (cf. Krifka 2001). It selects a non-imperative MoodP.

With these components of morphosyntactic expressions and empty functional categories, the semantic structure of (1) will be (9).

(9) ^ASSERT ^c3e [−[t < t′]] ∧ [(∃y) [(TOWN CASTLE y) ∧ [t ⊆ τ(e)] ∧ e INST [REERECT y s]]]]

In contrast, the semantic representation of (2) will be (10). The semantic contribution of the subjunctive particle by is the presupposition, added by the functional head +Mood +subjunctive, that the pertinent proposition does not belong to the speaker’s epistemic mental model (Zimmermann to appear).

(10) ^ASSERT ^c1t [ [t ⊆ τ(GDR)] → ∃e3] [(TOWN CASTLE y) ∧ [−[t ⊆ τ(e)] ∧ e INST [REERECT y s]]]] ∧ [−[∃e3] [(TOWN CASTLE y) ∧ [−[t ⊆ τ(e)] ∧ e INST [REERECT y s]]]] ∧ pRy sp

It will be shown how the morphosyntactic and semantic components of (2) determine the representation in (10) and answered the question of panel 3 what subjunctive is, at least in Russian.

References


ON FINITENESS – FOCUSING ON SUBJUNCTIVE
Manuela Ambar
University of Lisbon

The matter of this talk is the licensing mechanism of subjunctive. It will be argued that this mechanism operates in other (non-)finite structures, assuming a scale of finiteness (Ambar 1988, 1998). We will compare Portuguese to other languages. It is well-known that in Romance and other European languages the subjunctive occurs in sentential complements under given classes of predicates (Ambar 1988, 2007 for Portuguese, Manzini 2000 for Italian, a.o.): volitional and factive predicates obligatorily take subjunctive and exclude indicative; conversely, in the unmarked case, declarative and epistemic predicates require indicative and don’t allow subjunctive; other verbs take either indicative or subjunctive. The subjunctive is also licensed under the action of given operators (modal in root clauses, negation and interrogative).

The idea that the tense of Subjunctive is dependent or anaphoric goes back to traditional grammarians (e.g. J. S. Barbosa 1822 for Portuguese). In the generative framework this idea was implemented in two different directions: (i) subjunctive in complements to volitional predicates is dependent on the matrix tense (Jakubowicz 1985, Piccallo 1987, Borger 1989, Ambar 1988), because, contrarily to declarative and epistemic verbs, volitional predicates do not select a tense operator in their sentential complements, obviation being derived in a principled way through Binding predictions and (ii) clausal complements to volitional predicates are [+finite, -finite] (Beškovcov 1997, inspired in work by Martin 1992 and Eng 1991). The crucial insight underlying the second view relies on Stowell’s 1982 observation according to which the temporal interpretation of infinitival Control structures under volitional predicates is independent with respect to the matrix one, more precisely it is unrealized, future. Stowell’s observation conflicts with the idea that Tense under volitional predicates (both in subjunctive and infinitival structures) is anaphoric wrt the matrix tense. Hitherto Stowell’s observation is right.

In line of work developed by Ambar (2005, 2007), one of our main goals in this talk is to make compatible approach (i) with Stowell’s observation. But then other questions will be addressed. As largely described in the literature, in most Romance languages obviation is a phenomenon associated to the anaphoric character of Subjunctive. Yet, as pointed out by some authors (Ambar 1988, 1993, Martineau 1994), there are contexts where obviation is violated, overt embedded subjects controlled by the matrix subject being possible in volitional contexts (either in subjunctive or uninflected infinitival Control structures). More recently this question has been addressed for other languages e.g. Hungarian (Szabolcsi 2009). This fact entails two other main questions: (1) considering that obviation is not present in complements to predicates selecting indicative, in which sense is selection involved in the distribution of subjunctive (and uninflected infinitive) vs. indicative (and inflected infinitive)? Or in other terms what is lexical selection? The question is more interesting when we compare, for instance, Portuguese to Russian – although Russian has no subjunctive morphology, under volitional predicates subjunctive structures are available by other means - complementizer, Past -, whereas they aren’t in factive contexts, contrarily to Portuguese. Still related to selection we will conjecture on why the typical behaviors described for Subjunctive almost reduce to verb want in the class of volitional predicates. Taking sentential complements to volitional predicates in languages of the Balkan type (Sorin 1987, 2008, Terzi 1992, Rivero 1994, Llana 1994, Martineau 1994, Tóth 2000, Szabolcsi 2009, Anagnostopoulou & Everaert 1999, besides the obviation phenomenon, we will concentrate on their complementizers (Kaye 1982, 2008, Roberts & Roussou 2003), trying to accommodate those structures to our system and trying to understand crosslinguistically the
distinction between subjunctive and (inflected) infinitive. The system we propose relies on the probe-goal system (Chomsky 1999, 2005). Our proposal shares with Pesetsky & Torrego (2004) the idea that \( t(\text{tense}) \)-features have to be considered on par with \( \phi \)-features – both are present in the heads (C, T, v and V, plausibly Tbj (Ambar 1996, 1998, Pesetsky & Torrego 2001) in need of valuation. But we will differ from them in considering a more restricted system, namely, as in Chomsky (1999), features are \( [\pm \text{interpretable}] \). We hypothesize that features in the heads are generally unvalued. The apparent paradox created by the need of considering Tense of volitional complements as anaphoric and as non-anaphoric (independent, Stowell 1982) is solved through a crucial distinction in the tense-features with predictive empirical input. If time allows, we will then briefly see how this mechanism operates in other finite and non-finite structures.

References
Picallo, C. 1983. Opaque Domain, PhD dissertation, CUNY.
In this talk, I discuss what we can think of as "extraordinary" subjunctives, i.e. optional subjunctives that are claimed to create a weakening effect in e.g. relative clauses, in questions, and under negation. This use of the subjunctive does not fall under selection, and the weakening effect is understood as creating a conjectural reading (Giannakidou 1998, Matthewson 2010), or as suspending existence (in relative clauses). The weakening effect and the optionality of this kind of subjunctive, do not follow from ordering theories of the subjunctive (which take the subjunctive itself to be almost vacuous, e.g. Villalta 2008). I suggest that the 'weakening' subjunctive is being used as the speaker's device to express evaluation. The evaluation consists crucially in creating modal space (set of worlds) that is non-veridical (Giannakidou 1998, 1999), i.e. non-homogenous: it contains at least one world where the proposition is not true. Understood this way, the evaluative subjunctive is not so different form the 'regular' one after all-- but the crucial notion to understand the similarity is nonveridicality, and not ordering.
Recently there has been growing interest in how semantic theory can be related to language processing and psycholinguistic experiments. In this talk I will focus on the phenomenon of aspectual coercion and will discuss what requirements a semantic theory must meet in order to account for online processing. I will lay out what predictions can be derived from standard (and not so standard) semantic theories for incremental semantic interpretation. In particular, operator based accounts of aspectual coercion will be contrasted with a processing model (Bott 2010) based on the Event Calculus of Hamm & van Lambalgen (2005) who proposed a classification of coercion into different subtypes. The predictions of the alternative frameworks were tested in a series of online experiments applying different psycholinguistic methods. The first study was an event-related potentials (ERP) experiment on aspectual enrichment. Secondly, processing difficulty of aspectual enrichment was compared with other subtypes of aspectual coercion in a number of reading time experiments. The results indicate that different kinds of coercion do in fact lead to differences in how they are processed. Finally, we conducted a cross-linguistic reading time study comparing aspectual coercion of the same subtype in English vs. German which shows that difficulty of aspectual enrichment was compared with other subtypes. The predictions of the aspectual system of a language affects how easily comprehenders can arrive at a coerced meaning.

The following contrast is well known:

\begin{itemize}
  \item (1a) a. Mary swatted flies for half an hour.
  \item b. #Mary swatted a fly for half an hour.
\end{itemize}

While (1a) makes perfect sense, (1b) is distinctly odd. Accounts of this phenomenon (e.g., Krifka 1989) draw a distinction between homogeneous and non-homogeneous eventualities. An eventuality of swatting flies is homogeneous - it can have a proper part that is also an eventuality of swatting flies. Correspondingly, the predicate swat flies is homogeneous (or cumulative) - it denotes a set of homogeneous events. In contrast, an eventuality of swatting a fly is not homogeneous, because it does not have proper parts that are also eventualities of swatting a fly. Hence, the predicate swat a y is not homogeneous (it is quantized). The common explanation in the literature is that for-aderverbials do not allow quantized predicates in their scope, and this is why (1a) is good but (1b) is bad.

\textbf{Iterativity.} There is, however, a (non-swatted) y in the ointment. It is well known that there are cases when a quantized predicate is actually \_ne inside the scope of a durative adverbial. For example:

\begin{itemize}
  \item (2) Mary dialed a phone number for half an hour (Van Geenhove 2004).
\end{itemize}

The predicate dial a phone number is quantized: there is no subpart of an eventuality of dialing a phone number (in its entirety) that is also an eventuality of dialing a phone number. Hence, (2) ought to be bad, but it is \_ne. The answer is that the sentence receives an iterative interpretation, meaning that Mary dialed a phone number again and again, and this happened during the course of one hour.

\textbf{The puzzle.} Why can't iterativity “save” (1b) and make it acceptable, just like it does (2)? Why doesn't (1b) have an iterative interpretation?

Note that (1b) does, in fact, have an iterative reading. But it is a very odd reading, where the same poor y is swatted again and again; crucially, (1b) cannot mean that the act of swatting a y was repeated with different flies. The same observation applies to (2): it can only mean that Mary dialed the same number again and again, not that she tried different numbers. In both cases, the iterative operator is required to take narrow scope with respect to the indefinite. So iterativity is restricted to narrow scope only. The puzzle is: Why?

\textbf{Inherent narrow scope?} One might want to suggest that iterativity is an inherently narrow scope operator, or that it is restricted to apply only to the verb. But this is wrong: if iterativity is indicated overtly, wide scope is possible. For example, Zacchi and White (2001) note that while (3a) can only mean that John pushed the same cart again and again, (3b) allows him to push different carts on different days.

\begin{itemize}
  \item (3) a. John pushed a cart for a year.
  \item b. John pushed a cart every day for a year.
\end{itemize}

Similarly, (4a) can only mean that John baked and rebaked the same cake for six weeks. In contrast, iterativity is introduced by for dinner in (4b), and this is sufficient to allow it to take wide scope, so that John baked different cakes for different dinners.
a. John baked a cake for six weeks.
b. John baked a cake for dinner for six weeks (Hans Kamp, pc)

Aspectual coercion. To solve this puzzle, we need to consider the origins of iterativity. Krifka (1989) suggests that iterativity involves a (double existential) quantifier, and contrasts iterative readings with "normal, that is, non-iterative interpretations." Iterative readings are abnormal in the sense that they arise when there is a type mismatch between a quantized predicate and the requirement of a durative adverbial. De Swart (1998) proposes that iteration results from the application of an aspectual coercion operator, which turns a non-homogeneous eventuality into a homogeneous one.

Type-shifting and scope. I propose treating this coercion operator like other type-shifting operators. Type-shifting is exemplified by conjunctions like (5), where the type of the extensional verb buy is shifted to the type of the intensional verb need.

(5) John needed and bought a new coat (Partee and Rooth 1983)

Partee and Rooth argue that type-shifting occurs only as a "last resort". I propose that it therefore applies as late as possible, and therefore predict that it has narrow scope with respect to other operators. This prediction appears to be borne out. Sentence (6a) is scopally ambiguous; it could mean that John didn't buy any coat, or that there is one coat that he didn't buy. But, in contrast, (6b) only has the reading where negation takes scope over the existential, namely where John needed a new coat, yet didn't buy any (of course, (6b) also has a de re reading, which does not involve type-shifting and is therefore irrelevant). The sentence does not have a reading where need is interpreted de dicto, yet negation takes narrow scope, i.e., where John needed a new coat, and there is one that he didn't buy.

(6) a. John didn't buy a new coat.
   b. John needed but didn't buy a new coat.

The solution to the puzzle. Since the iterative operator is introduced by type-shifting, the quantifier it introduces is restricted to narrow scope only. If it could scope over the inde_nite, (1b) would mean that Mary was engaged in a series of swatting events, but she swatted different ies every time. This would be a perfectly plausible scenario; such a reading, however, is unavailable. In contrast, in (3b) and (4b), iterativity is introduced by overt material rather than type-shifting, hence wide scope is quite possible.

References

Cross-linguistic semantic studies are often hard to carry out, for the distinctions are subtle, and intuitions not always easy to grasp. In the study of aspect, this problem is compounded by the complexity and abstract nature of the theoretical concepts, which often have a long history in language-specific grammars and in the linguistic literature. In this paper, I explore data from Romance languages, Slavic languages and East-Asian languages in which the borderline between well-known aspectual categories like situation aspect, grammatical aspect and tense is fuzzy, leading to overlap and interaction between categories. Working from a layered representation, I try to show how far we can push a compositional analysis, and where we need insights from other parts of the grammar to capture the aspectual structure of sentences involving bare nominals, multiple aspectual markers, and aspectually sensitive temporal markers.
This paper advocates the view that Germanic tense is compositional. We start out from the assumption that all verbs and auxiliaries are inherently tensed, and that being tensed is a crucial characteristic of any verb or auxiliary in Germanic languages. Next, we draw a sharp distinction between tense and finiteness. Although all verbs are tensed, this does not imply, of course, that all verbs are finite. In Germanic, finite tense (usually) equals absolute tense whereas non-finite tense equals relative tense (Comrie 1985). All languages can express (absolute and relative) past, present and future. However, not all languages express all three distinctions via the basic tense system. The garden variety Germanic language only expresses the distinction past v. non-past in its tense morphology “with subdivisions within non-past (especially future as opposed to the present) being at best secondary; thus the so-called present tense in such languages is frequently used for future time reference”; Comrie (1985). Pairing this assumption with our claim that the absolute-relative distinction is the finiteness distinction in the relevant languages, we arrive at the paradigm in (1) for the garden variety Germanic language. Here, each and every verb form encodes a tense element consisting of two pieces of information: [+Past] and [- Finite].

<table>
<thead>
<tr>
<th></th>
<th>[±Past]</th>
<th>[-Finite]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Futile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pret/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parti</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pst/P</td>
<td>[-Past]</td>
<td>[-Past]</td>
</tr>
<tr>
<td>Pres/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unlike tense, finiteness is similar to pronominality: finiteness in the verbal domain behaves like pronominality in the nominal domain. Thus we expect verbal tense forms to behave like anaphors, and we demonstrate that finite and non-finite tense elements are subject to the principles of Binding Theory. In languages like Mainland Scandinavian, finite forms (absolute tenses) behave like temporal pronouns and non-finite ones (relative tenses) like temporal anaphors (Cf. Partee 1973, 1984; Enç, 1987; Stowell; 2007 for different approaches).

A maximal A-chain (α1, ..., αn) contains exactly one link α1 which is +R.

As long as this condition is satisfied, and each temporal referential chain contains exactly one +R, finite, link, nothing prevents language from creating compositional temporal chains of absurd length, and tenses of incredible complexity.
Part-whole relations have been used to characterize the meaning of noun and noun phrases, of verbs, and their interaction in combinations of noun phrases and verbal predicates. For example, the denotation of milk/apples has been characterized as cumulative, whereas the denotation of two glasses of milk / two apples are quantized; these properties carry over to combinations like drink milk / two glasses of milk and eat apples / two apples. In this talk I will review basic facts and current explanations of the phenomenon, including findings about event-related nominalized verbs. In particular, I will consider differences in quantizing constructions for the nominal and the verbal domain, such as two apples vs. cough two times.

I address the question of how neuropsychological studies can contribute to our understanding of categories. I review some of the rich literature on differential processing of nouns vs. verbs in language disorders and in typical language, and conclude that, while the results in this area are complex, they nevertheless support the view that the noun-verb distinction is represented in categorical terms. Instructive in this respect are studies of conceptual semantic ‘category-specific’ disorders (e.g., dissociations between living things and artifacts), where evidence similarly supports the ‘domain specific’ theory (Caramazza and Shelton 1998), which posits specialized neural circuits dedicated to the processing of different categories of concepts, rather than the ‘sensory-functional’ theory (Warrington and McCarthy 1983), which holds that the conceptual semantic system is organized according to property types rather than categories.
PANEL 5

HOW CAN CARTOGRAPHIC, FEATURE – BASED, SCALAR AND EXPERIMENTAL APPROACHES CONTRIBUTE TO OUR BETTER UNDERSTANDING OF CATEGORIES?

CATEGORIES FOR SPEAKERS AND THE CHALLENGE OF CROSS-LINGUISTIC COMPARISON

Martin Haspelmath
Max Planck Institute for Evolutionary Anthropology, Leipzig

Grammatical categories are necessary for productive language use, but how can linguists find out what the speakers’ categories are? In this talk, I will defend three claims which many will find surprising: (i) Linguists cannot know what categories speakers have; (ii) this is not a problem; and (iii) language comparison is not based on categories in the sense of “speaker categories”.

The argument can be summarized as follows: Our evidence for categories underdetermines the choice of categories, and while linguists have tried to let the decision be made by universal grammar, this does not work either: We have not been getting closer to knowing what UG might be, if it exists. The usual (generative) method of extrapolating from individual languages has not worked, and the (typological) survey-based method does not yield universal categories either. In practice, successful broadly cross-linguistic work employs a special kind of comparative concepts, rather than speaker categories.

I will exemplify these broad points with various examples from morphology and syntax (categories of determiner, anticausative, converb, word, ditransitive, and others).
WHAT ARE CATEGORIES? ADJECTIVE-LIKE AND NOUN-LIKE SEMI-LEXICAL NUMERALS IN POLISH

Heidi Klockmann
Utrecht University, UIL-OTS

Introduction
Corbett (1978) offers the generalization that higher numerals tend to be more noun-like and lower numerals more adjective-like. This generalization is difficult to capture in a system which assumes that categories form discrete groups with clear, easily definable boundaries. Based on evidence from agreement mismatches with Polish numerals, which appear to conform to Corbett’s generalization, I argue that categories should be understood as derived notions rather than syntactic primitives. In particular, I claim that it is the combination of features that produces the notion of a category. Under this view, it is possible to treat those elements that defy categorization by assuming that they carry a feature set which differs from the prototypical ideal for a particular category.

Agreement Mismatches: Numerals in Polish trigger agreement mismatches, i.e. mismatches between the features of the verb and would-be subject. 5+ induced agreement mismatches occur obligatorily with numerals greater than five (1a) but not with the lower numerals, 2,3,4 (1b). If the gender of the noun is masculine personal, however, then gender induced agreement mismatches are found for both numeral types, 2,3,4 and 5+ (2a,b).

(1) a. Pięć ptaków spalo (Mismatch: number, gender)
   Five birds slept (Mismatch)
   Five birds slept
   a. Dwóch chłopców spało
      Two:NOM ACC boy.M.PL:GEN slept:N.SG 5+ and GENDER INDUCED
   Five boys slept
   b. Dwóch ptaków spały
      Two:NOM ACC bird.M.PL:GEN slept:N.SG GENDER INDUCED
   Two boys slept

Internal Agreement: The 2,3,4 numerals consistently show gender and case agreement (3). The 5+ numerals do not show gender agreement, but they alternate between acting as case – assigners in structural positions (4a) and case-agreeers in non-structural positions (4b). I will not address this case alternation here, but in the talk itself.

(3) a. Dwa ptaki / dwie dziewczyny spalę
   Two birds / two girls slept
   b. Spaliłam z dwoma ptakami / dwiema dziewczynami
   I slept with two:M.M.PL birds.MINST birds.MINST / two:F.M.PL girls.F.MINST
   I slept with two birds / two girls

(4) a. Pięć ptaki / dziewczyn spalam
   Five birds / girls slept
   b. Spaliłam z pięcioma ptakami / dziewczynami
   I slept with five:M birds.M.PL birds.MINST / girls.F.MINST
   I slept with five birds / girls.

Claims
The numerals 2,3,4 and 5+ do not fully conform to the category of adjective or noun:

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Property</th>
<th>Adj</th>
<th>1</th>
<th>2,3,4</th>
<th>5-10, 100</th>
<th>1000</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjectival</td>
<td>Case agreement</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Gender agreement</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Number agreement</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nominal</td>
<td>Assigns pronominal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Semantico-lexical</td>
<td>Agreement mismatches</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Assuming a system in which adjectives carry only uninterpretable features and nouns only interpretable features (c.f. Baker, 2003), elements with mixed sets of uninterpretable and interpretable features would constitute a cross between adjective and noun. In particular, I claim that the numerals 2,3,4 represent just such a cross, with uninterpretable gender, interpretable number, and as I will claim, a usually inactive case assigner. Numerals 5+ are nominal with an interpretable number feature, no gender feature, and a genitive case assigner. The numeral 1 I will argue to be an adjective and the numeral 1000 a noun.

Prerequisites
The neuter singular agreement we see on the verb with agreement mismatches in (1) and (2) are instances of default agreement (Preminger, 2011) (5):

(5) a. Padal mi się
   rained.NSG was.bored.NSG me.DAT SIE
   It rained I was bored

Contra Franks (1994), I argue that the case of the numerals in (2) is genitive, not accusative.

Analysis
5+ induced agreement mismatches are due to the absence of an active, phi-complete Goal for the Probe, i.e. the phi-features expressed on the verb. Neither the numeral nor the noun are proper Goals for the Probe: the 5+ numeral is phi-incomplete as it lacks a gender feature, and the noun is inactive as its uninterpretable case feature has been checked DP internally. This leads to default agreement on the verb (Preminger, 2011) and default nominative on the numeral (Schütze, 1997). In contrast, the case assigner with numerals 2,3,4 is inert with non-masculine personal nouns and does not assign DP internal case; thus, the case feature of the noun is unchecked and it remains a phi-complete Goal.

Gender induced agreement mismatches are due to “case-leaking” triggered by the masculine personal gender value: the genitive case assigner cannot deactivate after agreement with the lower masculine personal noun and instead extends its search space upwards through cyclic agree (Rezac, 2003), thereby assigning genitive to both numeral and noun. This case assigner is always active for 5+, but only active for 2,3,4 with masculine personal gender.

   [Noun] [Noun] [Case-assigner] [Verb]
   [Noun] [Noun] [Case-assigner] [Verb]
   [Noun] [Noun] [Case-assigner] [Verb]

The agreement facts in (3) are due to the uninterpretable gender and case features of the 2,3,4 numerals, which causes them to agree as adjectives do (see 6). Numerals 5+ lack gender altogether, thus, never agreeing in gender.

Conclusion
Under this analysis, categories are defined in terms of features where adjectives carry all uninterpretable features and nouns all interpretable features. Numerals differ from these prototypical categories by missing a feature (5+) or by carrying a combination of interpretable and uninterpretable features (2,3,4). In this way, the numerals resemble and share properties with the prototypical categories, but they also differ from them and this is
HOW CATEGORICAL ARE THE CATEGORIES NOUN AND VERB IN NUU-CHAH-NULTH?

Ben Braithwaite
University of the West Indies, St Augustine Campus, Trinidad And Tobago

The claim that category distinctions are either weak or absent in Southern Wakashan (SW) has been made on the basis of data such as the examples in (1), from Swadesh (1939:78-9).

(1) a. mamu:k -ma; quuʔas -ʔi; work -3sIND man -DEF
   “The man is working.”
b. quuʔas -ma; mamu:k -ʔi; man -3sIND work -DEF
   “The working one is a man.”

These and similar examples have repeatedly surfaced in discussions of lexical categories over the past decades, and yet there remain differences of opinion, even among Wakashanists, over the nature of the noun/verb distinction. Croft (2004) even considers the question of whether Wakashan languages have such a distinction to be unresolvable. While most Wakashanists do distinguish these two classes, as Cook and Howe (2004:294) report, “[m]ost linguists agree that the noun/verb distinction is weak…” . Nakayama (2001:156), for example, argues that “(t)he identifiable word classes represent functional and behavioural prototypes… rather than discrete categories”.

In contrast, Baker (2003) develops a theoretical account of lexical categories in which nouns and verbs are discreet, universal and structurally defined. He discusses Southern Wakashan data, arguing that nouns in these languages may be used predicatively by virtue of a covert head, Pred. In other languages, verbal affixation cannot appear on nouns because the intervening Pred blocks attachment. In the case of SW however, he argues that predicate nouns may bear such marking because markers are clitics, and attach phonologically. Evidence for this can be seen in (2), in which the mood/agreement marker -ma: attaches not to the verb, but to the sentence-initial adverbial Ḳaʔhʔaʔaʔa.

(2) Ḳaʔhʔaʔaʔa.ma ʔaʔaʔaʔa. ʔaʔaʔaʔa. ʔaʔaʔaʔa. Ḳaʔhʔaʔaʔa. -ma: ʔaʔaʔaʔa. ʔaʔaʔaʔa. ʔaʔaʔaʔa. -ʔi; and then -3sIND sing -MOM -NOW young woman -DEF
   ‘And then the young woman started chanting.’

(2) also shows that aspectual markers do not exhibit the same behavior: the momentaeneous -sil attaches not to Ḳaʔhʔaʔaʔa, but to the verb, ʔiːq. On the basis of such evidence, it seems clear that aspect markers are true suffixes. It is therefore surprising, for Baker’s account, that nominal predicates may bear aspectual morphology:

(3) quuʔas -sil. -ʔa; person -MOM -NOW
   ‘they became people’

This paper argues that it is nonetheless possible to apply Baker’s categorical definitions of nouns and verbs to Nuu-chah-nulth. Moreover, doing so sheds light on a number of
systematic asymmetries between Nouns and Verbs in the language.

There are a number of roots in Nuu-chah-nulth which have bound and free variants. When a verbal root bears an aspectual suffix, the bound form appears. When it is unsuffixed, or it is suffixed by a TMA marker, the free form appears. Interestingly, when a nominal root with bound and free allomorphs is used predicatively, the free form always appears, even when it occurs with an aspectual suffix.

There are also systematic ambiguities in past tense marked nominal predicates. In (4a), the past tense marker is interpreted as having scope over the whole predicate, but in (4b) it is interpreted in relation to the noun to give the meaning ‘former’ or ‘deceased’.

(4) a. quuʔas -(m)it - (m)ach
   person -PAST -1s.IND
   ‘I was a man.’
   b. 껥ʔumulʔ, 껥ʔani 껥ʔumiił -(m)it -qa;
   because that whaler -PAST -SUB
   ‘…because he was a former whaler.’

The paper accounts for these (and other) differences in terms of the additional layer of structure introduced by Pred. In so doing, it provides evidence in support of a categorical distinction between nouns and verbs, from a language which has previously been cited as an example of why such approaches are misguided.

References

Nouns, Verbs, and Verbal Nouns: Their Syntactic Structures and Structural Cases
Mark C. Baker
Rutgers University

To settle the question of whether the noun-verb distinction is discrete or continuous, one needs to be clear about what the question means. I begin by clarifying three distinct linguistic units that the question could be about: it can be about roots, about whole inflected words, or about nodes in a syntactic tree. Misunderstanding can result when different theorists are interested in different units. For example, my own program of research into lexical categories (Baker 2003, 2008) can be summarized as the view that nodes in a syntactic tree are discretely verbal or nominal (or adjectival), with no intermediate cases. In contrast, the category of whole inflected words is not very important theoretically, because they often correspond to several distinct syntactic nodes, each with its own discrete categorical properties. As for the categories of roots, I have been agnostic on this point: the claim of discreteness in syntax is compatible with a degree of continuity in the lexical representation of roots and how they map onto the leaves of a syntactic tree, allowing for a kind of “zero derivation” used to varying degrees in different languages.

That being said, many discrete differences between nouns and verbs can be derived from their discrete syntax within the generative framework, including some properties attributed to morphology or semantics in other approaches. After a brief review of the cluster of properties that is associated with nouns versus verbs in Baker (2003, 2008), I offer a new illustration of this, drawn from the empirical domain of structural case assignment. The case assigning properties of nouns and verbs are often quite different: verbs, for example, appear with arguments in nominative or accusative case, whereas the arguments of nouns are often in a distinct case, genitive, not used as a structural case with verbs. Moreover, from a crosslinguistic perspective, an interesting asymmetry can be observed: in languages with ergative case marking in clauses, genitive is often syncretic (completely or to a large extent) with ergative case (e.g. Inuit, Shipibo, Nez Perce), whereas in languages with accusative case marking in clauses, structural accusative is not used in nominals. I show how this asymmetry can be explained by combining the idea that verbs license specifiers but nouns do not (Baker 2003) with the idea that ergative and accusative are both dependent cases, assigned when there are two distinct nominals in the same local domain (Marantz 1991). I go on to show how this result can be generalized to explain the fact that structural accusative does not appear on the complements of simple nouns any more than it does on the possessor or the possessum. Finally, I contrast simple nouns, which never take complements in structural accusative case, with so-called “verbal nouns”—nominal words derived from verbal stems—which often do take accusative complements. This difference can be derived from the claim that verbal nouns do not correspond to a single node in a syntactic tree, but rather they express a structure in which a fully verbal VP is embedded inside a fully nominal NP, the derived word resulting from fusing the verbal head with the nominal one into a single “word” in (or after) the syntax. A particularly instructive comparison is between Turkish, which allows genitive subjects with accusative objects with verbal nouns only (not with simple nouns) versus Cuzco Quechua, in which the object of a verbal noun can be accusative if and only if the subject is nominative rather than genitive (Lefèvre and Muysken 1988). These various comparisons illustrate graphically the importance of thinking in terms of syntactic structures, and not only in terms of roots or inflected words.
BEYOND THE BORDERS OF CATEGORIES
A FUNCTIONAL APPROACH TO THE PARTS OF SPEECH CONCEPTION
Fanni Karácsony
Eötvös Loránd University, Doctoral School of Linguistics, Hungarian Linguistics Doctoral Program, Budapest, Hungary

The system of word classes used in European linguistics is based on categories which are traditional in language description since thousands of years, though the last ones who could be totally satisfied with them were the ancient Greeks, who had elaborated the conceptions. It took thousands of years and many works of great Greek philosophers and scientists until the definition of the parts of a proposition, used in logic, changed into a grammatical description, in which functional approach was mostly replaced by formal and parts of speech became word classes, before Latin grammarians would spread them all over Europe (Havas 1998, 2003). Through the influential grammars of Donatus and Priscian the Greek-Latin conceptions reached every corner of Europe. We rarely realize that the categories of “noun”, “verb”, “adjective” etc. were originally created to describe the ancient Greek language.

Taking linguistic categories from one language into another is rarely free of problems, linguists face many difficulties describing something with alien conceptions. In most of the European languages (not to mention thousands of “exotic” languages in the world) many compromises had to be made in the distribution of word classes: the categories need continuous redefinition, exceptions and special rules when comparing different languages, language states in different historical periods or even when describing the synchronic functioning of a given language. However, even with these compromises, languages behave many times not “the way they should”.

In my research on the part of speech categories of the Uralic languages I deal with two prominent phenomena in details: non-finite verb-forms and nominal predicate. Both are fields where rigid categorization of the word classes can mislead the examination.

There are three very different constructions of nominal sentences in the Uralic languages:

a) noun+copula (e.g. Finnish: [mina] olen ihminen, [sinä] olet ihminen, hän on ihminen... ‘I am/you are/he is human’)

b) personal pronoun+noun (e.g. Udmurt: mon ad’amı, ton ad’amı, so ad’amı ‘same’)

c) verbal-like conjugation of the noun (e.g. Mordvinic: lomαιän, lomαιät, son lomäh ‘same’) (Karácsony 2011). The Indo-European-like construction of a noun and a copula covers only in the Baltic-Finnic languages the whole paradigm, in the other languages we find to a greater or lesser degree predicates without any verb. According to the traditional linguistic description based on Greek-Latin grammars, a finite verb must appear in every predicate, while all the sentences without a verbal element are defective or they contain an implicit verb. The explanation of the predicative conjugation of the nouns is even more difficult: from the Indo-European point of view it is possible only by conversion which means that the noun turns into a verb in the given context. Both constructions appear in language descriptions as exotic phenomena, which are dissimilar from “normal”. However, if we have a look at the construction types of nominal predicate on the linguistic map of Eurasia, it becomes conspicuous, that all the three types are represented with the same weight among the languages, showing visible areal connections.

Also from a functional aspect, the picture is surprisingly simple and clear: the abstract structural schemes of the three nominal predicate types are exactly the same, and none of them shows any deficiencies. Differences are only in the means of expression, and this leads finally to the following questions: what roles can different word-classes fulfil in a given language, which formal markers can they wear, how do they function in the language? How clear-cut are the boundaries between categories?
Overlapping, fuzzy categories, categorical fusion are the characteristic features of agglutinating languages (Skálčka 1975). Non-finite verb-forms are also good examples for this: in Hungarian they are classified as an autonomic word class, but there is still no consensus about the exact criteria of the category or even the number of its elements. No wonder: making clear-cut distinction is impossible, because non-finite verb-forms (inseparably together with other deverbal nouns) compose a continuum between nouns and verbs, which can be visible on a feature-based scale.

The thought of the continuity of categories traditionally considered as opposing ones, has already gained ground in linguistic literature (Pomozí 1997, Hopper—Thompson 1985, Vogel—Comrie 2000). The question is now rather this: how is it possible to compare the differently functioning word classes of different languages, to demonstrate the historical changes in a language’s parts of speech system, to avoid the redefinition of word class categories in every single language? How could word class scales be compared?

In my research I am working on a feature-based approach, in which the bigger or smaller groups of a language’s words can be placed on scales. The two poles of the scales are actually fictive pure categories: verbal, nominal etc. prototypes that are distinct from every other word classes in all aspects (semantic, syntactic and morphological), and show all the prototypical features of the given word class. The situation of the basic and derivated words of different languages (or different historical language states) on the scale can be defined in relation to these fictive prototypes. In this approach the whole model of parts of speech is a system of scales, and its main advantage is that it does not force differently functioning word groups into the view of lexical categories.

The iconicity of the universal categories “noun” and “verbs” is based on the fact that some features from the lateral parts of each module is inserted into another. Therefore, the informational structure is found. The following is a set of (related) proposals to improve the current shortcomings with respect to linguistic categorization:

- The feature based analysis beginning with Chomsky (1970) can be manipulated in a nano fashion (see Ramchand 2008), so that meaning and form are the actual realization of these small and specific features. Now where are these features stored and how do they operate? Each set of functionally similar features are grouped together and housed in a module. By using module, one is adopting here a version of massive modularity (see Carruthers 2006). Thus, we have a wide variety of modules each with different functions interacting with each other. These modules may be classified according to the informational contents into semiotic, cognitive, mathematical, etc. A language-specific module is central in this type of modeling, a module which contains all the language-specific information required to interact with universal features in order to do an efficient and optimal classification of the outside world. The modules are (either genetically or manually) programmed to interact with each other in a specific way and are in a way impenetrable. This is the most general way modules can interact which results in the discrete categories being present. But scalability or gradedness in categorization occurs when the normal interaction is no longer applicable. In other words, the modules no longer pass features to other modules, but that modules lose their impenetrability to a certain extent so that some features either enter of escape a module without the permission of module. So to speak, the module “leaks”. Thus said, gradability results from “modular leakage”. But the process of modular leaking happens only gradually. One thing must happen before that, i.e. lateralization. Thus, modules must first be lateralized and therefore further classify their content according to certain criteria, one of which may be in order of complexity, the others may be similarity, size, etc. As modules become lateralized into two (or even more parts), one must always be central and contain the most central contents vital to the functioning of the module. The other(s) may contain the peripheral material. This peripheral lateral part is the one which is vulnerable to be penetrated or be the point of leakage. It seems that functional and lexical categories must be the product of the normal interaction of different sets of modules. But when the above-mentioned leaking process happens, lateralization allows the peripheral parts of these modules to be penetrable and thus some features from the lateral parts of each module is inserted into another. Therefore, the informational content of the modules has changed and to some extent, they are somewhat different modules. By saying so, one means that also different kinds of interactions
take place which result to the creation less discrete categories and/or even the conversion of one category to another, such as those seen in the process of grammaticalization. As languages are biological complex systems (see Simon 1969), they must be organized hierarchically, one reason must be that a change from outside should not affect the whole system. The same holds for modules, on the condition that we look at language from a modular perspective.

By taking the above axioms into account, some of which are very fashionable in cognitive neuroscience (see Mildner 2008, see also Dehbozorgi 2012 for its applications in syntax), the present paper struggles to illustrate a modular theory to linguistic categorization and also to account for the grey areas that has long bothered the linguistic society. Sufficient use has been made of recent advances in neuroscience and cognitive science to illuminate the work. The results may have far-reaching consequences for the problem of linguistic categorization.

Keywords: linguistic categories, discreteness, gradability, modularity, massive modularity, leakage

References


DISCRETENESS AND GRADIENCE AS CO-OPERATING TECHNIQUES IN MODELLING A LANGUAGE

Jan Křivan
Charles University in Prague

The paper deals with linguistic modelling. From a methodological viewpoint, it concerns the role of categorization in a metalinguistic domain of linguistic description and explanation. More specifically, the relation between discreteness and gradience in language modelling is surveyed.

In general, I claim that every sort of categorization – observing clearly defined rules – has a potential to depict relevant language properties. There is no unique, principally correct or false way of categorization. The choice of categories and the ways of their construction depends chiefly on stipulated scientific aims. The role of every linguist is to seek and describe relevant categories. However, it is not obvious, what a relevant category looks like. Some scholars believe in universal categories, whereas others take only language-particular categories for granted. Linguists have very different responses to the basic question What should a model of (a) language tell us about language?

In this paper, I pursue a descriptive model of language which is functional in nature and concerns a particular language. It doesn’t presuppose any pre-established categories (in the sense of Haspelmath 2007). It should be able to capture language-particular facts in a comprehensible way and make them available to functional explanations, e.g. in terms of frequency, as in functional usage-based approaches (Bybee 1995, 2007, Haspelmath 2008a). A model of a particular language should embrace and generalize (i.e. describe) data of two different kinds:

(i) “raw” linguistic data (e.g. corpus data, fieldwork data); mainly by means of distributional analysis, i.e. generalizations over texts, this part of a model corresponds roughly to Basic Linguistic Theory (e.g. Dixon 2010);

(ii) “metalinguistically processed” linguistic data; besides linguists’ introspection which is inevitable for (i), it should capture language facts in correspondence to the results of grammatical judgments and other psychological experiments, i.e. generalizations over psychologies.

A model of a language is viewed as generalized empirical knowledge of language use and language processing. In other words it should describe adequately “what we produce” by the means of “what we think that we produce”.

Accordingly, the data should be linguistically generalized and categorized both as gradient and discrete. The reason consists in (ii): generally, we perceive the language and its categories psychologically in both ways: a burden of empirical evidence in experimental psychology since Rosch’s first investigations has shown that a gradient way of perception and modelling is a commonly used strategy by humans. In linguistics, Aaarts (2004) showed that gradience is compatible with discrete modelling. For these reasons, both techniques are meaningful. Some grammatical categories can be captured better using gradience, other ones using only discreteness. Gradience functions in a descriptive model as a linguistic instrument.

The functional nature of a model consists in its explanatory potential. It reckons with different corroborating variables external to the model, e.g. frequency, processing ease, prediction, economy.
In addition, a descriptive model is open to be accompanied by hypothesized cognitive processes. These processes don’t serve as an explanation itself, but they can indicate the way in which some of the explanatory variables might be linked to a language model via cognition (i.e. cognitive processes are mediating these explanations).

Empirically, I will illustrate the issue by means of selected data gathered in my projects focused on (i) the description of possession in Czech and (ii) on the frequency analysis of comparative and superlative forms in the Czech National Corpus.

Example (1):

(b) An explanation: Absolute high frequency of use (e.g. Bybee 2007) explains why linguistic forms tend to be reduced. Reduced comparative forms tend to be highly frequent. Suppletive forms have the highest frequency.

(c) Cognitive processes show possible cognitive links between reduced forms in a model and frequency. E.g. Haspelmath’s (2008b) explanation due to predictability for the hearer (in the language description and typology).

As a result, additional external properties can be optionally assigned to the comparative forms in a descriptive model: more frequent comparative forms tend to be lexicalized, less frequent forms tend to be regular.

The conclusion of the paper is: both gradient and discrete categories are suitable to play, side by side, a significant role in a descriptive model of a language and can be used for external functional explanations.

References:

COMPARISON OF DEGREES OR INDIVIDUALS? FOCUS EFFECTS IN SUPERLATIVES.
Barbara Tomaszewicz,
University of Southern California

Introduction: Is there a universal basic inventory of semantic types and are the same types used in syntactic constructions that have comparable interpretations cross-linguistically? The status of degree as a cross-linguistically found category is still under debate (e.g. Beck et al.’99 report languages with no constructions making reference to degrees. Kennedy ’07 investigates cross-linguistic variation in the expression of comparison), but so is the universality of the adjective, a primitive lexical category (Chomsky’70) (for Baker’03’05, N, V, A are universal, but Menon’12 shows that there are languages without adjectives).

Degrees, on some approaches are semantic primitives (Kennedy’07, Heim’00 more recently among many others), points ordered on a scale, of the semantic type d. Comparative and superlative morphemes which compose with gradable predicates are degree quantifiers. Although the exact semantics of the comparative is not settled, it is generally agreed to involve comparison of degrees, its two arguments are of the (d,d) type (Szurek’73, Creswell’76, von Stechow’84, Heim’00, a.o.). (Kennedy’99 provides a non-quantificational analysis).

Superlative has been analyzed as comparison either between both sets of degrees or between sets of individuals. Heim’99 introduced two lexical entries for the -est superlative morpheme with truthconditionally equivalent meaning, (1-2).

(1) [-est3-place] = λC<e,t>.λP<d,t>[C[e]<d,t> (x)] λx[C[e]=λd[C[e]<d,t>](x)]
(2) [-est2-place] = λC<e,t>·λP<d,t>[P[C[e]<d,t>]]

On both (1) and (2) the absolute/relative ambiguity can be derived from the scope of -est, which in turn partially determines the restrictor C, a contextual variable specifying the comparison class.

(3) John gave Mary the most expensive gift.
(a) Absolute superlative C<est3-place>[x.3d. x is a d-expensive gift] C<est3-place>[x.3d. x is a d-expensive gift]
(b) Relative superlative C<est2-place>[x.3d. John gave x a d-expensive gift] C<est2-place>[x.3d. John gave x a d-expensive gift]

The semantic type of C is different in (1)–(2), therefore although the truth conditions for (3a) and (3b) are the same, different comparisons are done: of people or of degrees. However, Romero’11 argues that (1) and (2) are “theoretical alternatives to each other” (similarly Szabolcsi’12). The possibility of overt specification of C as in (4) and (5) can be taken as evidence that both modes of comparison are available in a single language. (4) provides an explicit argument of type (e); (5) of type (dt) in the form of the relative clause which as argued by Howard’12 for English is a degree relative clause.

(4) John is the tallest among the candidates. C<est-e>={x.3d. x is a d-tall candidate}
(5) John read the most books anyone ever read. C<est-dt>=λd[C<est-dt>[x.3d. x read d-many books: xC[e] ]]

Proposal: I provide a syntactic argument from superlatives and relative clauses that the availability of the 2-place vs. 3-place semantics for -est in Polish is constrained by the presence of focus imposing a requirement on the semantic type of the comparison class C. This result supports the recent proposal of Szabolcsi’12 that “probably, each way of building superlatives is “right” for some languages, and both may coexist in (varieties of) the same language.”
Evidence:
There are two types of relative pronouns in Polish. The relativizer based on the wh-element jak (‘how’) allows kind and degree modification (Anderson & Morzycki’12), whereas the relativizer który (‘which’) does not. (6)-(7) illustrate that jak-questions receive kind (6a) and degree (6c) interpretation, as opposed to (6b). For quantities ile, wh-many/much, is used (7).

(6) (a) Jak /b)Który /c)Jak drogi prezent jest odpowiedni dla małego dziecka?
    how which how expensive gift is suitable for small child
    (a) ‘What kind of a gift is suitable for a small child?’
    (b) ‘Which gift is suitable for a small child?’
    (c) ‘How expensive a gift is suitable for a small child?’

(7) Ile prezentów jest odpowiednie dla małego dziecka?
    how-many gifts are suitable for small child
    ‘How many gifts are suitable for a small child?’

Polish has demonstrative elements referring to a degree (tak) or amount (tyle) which can participate in correlative structures only with jak- and ile-clauses (8)-(9). Thus, relativization in jak-clauses produces a predicate of degrees (d,t) (Ret’12). A maximality operator MAX(D), standardly assumed for free relatives, picks out the maximal element of that set, a singleton, e.g. MAX[(d,t)expensive(x,d) & afford(j,x)] (8), MAX[(λx.(x,d)many(x,d) & afford(j,x))] (9). This denotation combines intersectively with the matrix clause also denoting a maximal degree set due to the presence of tak (cf. so…that, Meier’03, such Constantinescu’11).

(8) Jan kupił Marii tak drogi prezent, na jaki/który go było stać.
    Jan bought for-Maria DEM expensive gift at how/which him was affordable
    ‘Jan bought Maria such an expensive gift as he could afford.’

(9) Jan kupił Marii tyle prezentów, na ile/które go było stać.
    Jan bought for-Maria DEM gifts at how-many/which him was affordable
    ‘Jan bought Maria so many gifts as he could afford.’

The same degree relative clauses are found with superlatives. (Regular relatives are also available but as indicated by the translations they modify the whole individual denoting DP (11) or the NP (12).) Assuming that the type of the degree relative can be freely shifted to a set of sets of lower-or-equal degrees (10) from Romero’11), it can function as an overt specification of the comparison set argument C in (2) for both the absolute (11) and the relative superlative (12).

(10) SHIFT<sub>tak</sub>→<sub>tyle</sub> = λD′.λV.λD′.λt′.3d′ [3d′(D′(d′) & D′=λd′.d′ ≤D)]
   (1) Jan kupił Mariii najdroższy prezent, na (a) jaki/ (b) który go było stać.
       Jan bought for-Maria most-expensive gift at how/which him was affordable
   (a) ‘Jan bought Maria the most expensive gift he could afford.’
       Jan bought for-Maria most-expensive gift at how/which him was affordable
   (b) ‘Jan bought Maria the most expensive gift of the kind that anyone would buy her.’

(11) Ile prezentów najwięcej...?
    how many/which...?
    ‘How many gifts are the most expensive of all those she could afford.’

(12) Jan kupił Mariii najwięcej prezentów, na (a) ile/ (b) który go było stać.
    Jan bought for-Maria most gifts at how/which him was affordable
    (a) ‘Jan bought Maria the most gifts he could afford.’
    (b) ‘Jan bought Maria the largest number of the gifts he could afford.’

Surprisingly, on the relative readings induced by the (narrow non-contrastive) focus on Jan (or Maria) ile-clause becomes ungrammatical (13) while the jak-clause loose its degree reading (14), and gets a kind reading only (cf. (6a,8)), which is made clear by the comparison

(13) JAN kupił Marii najwięcej prezentów, *ile kłofkoświk by jej kupił.
    Jan bought for-Maria most gifts how whoever would her buy
    ‘Jan bought Maria the most gifts anyone would buy her.

(14) JAN kupił Marii najdroższy prezent, jaki kłofkoświk by jej kupił.
    Jan bought for-Maria most-expensive gift how whoever would her buy
    ‘Jan bought Maria the most expensive gift anyone would buy her.’

(15) JAN kupił Marii taki prezent, jaki kłofkoświk by jej kupił.
    Jan bought for-Maria DEM gift how whoever would her buy
    ‘Jan bought Maria such a kind of gift as anyone would buy her.’

Conclusion: Relative readings obtained by focus require C to provide a set of individuals in (13-14). Szabolcsi’12 notes that the 3-place -est is well-suited for languages where the morphological ingredients differ according to the kind of comparison (Russian bol’she vse/vsego). In Polish the constraints on the syntax of degree relative clauses (13-14) are correlated with the semantic type of the C argument as required by focus. The role of focus in superlatives is debated, however, the present result shows that focus is not merely a contextual effect, but plays a role in the syntax of superlatives. Within the same language the superlative morpheme may either call for the comparison of degrees (2-place -est) or of individuals (3-place -est).
It will be shown here that certain constituents within the Polish noun phrase are ambiguous in their status as adjectives or nouns. These include, among others, relational adjectives (RA), e.g. prezydencki ‘relating to the (the) president’, and possessive adjectives (PA), e.g. wujkowy ‘belonging or relating to the (the) uncle’ or babciąny ‘belonging or relating to the (the) grandma’. Relational adjectives in Romance and Germanic languages have received considerable attention (cf. Levi 1978, Bosque and Picallo 1996, Giegerich 2005), as there occurs a mismatch between their formal (adjectival) features and semantic (noun-like) properties. For instance, relational adjectives seem to exhibit argument-like behaviour in event nominals in (1a), similarly to genitive DPs (cf. Giorgi and Longobardi 1991 for Italian).

(1) a. prezydencka wizyta we Wrocławiu ‘presidential visit to Wrocław’
b. wizyta prezydenta we Wrocławiu ‘(the) president’s visit to Wrocław’

Following the analysis of Spanish relational adjectives in Fábregas (2007), it is possible to treat Polish relational adjectives as nPs, which contain an adjectival affix with a defective feature matrix, thus unable to project an adjective phrase (AP).

Slavic possessive adjectives are similarly regarded as ‘nouns in disguise’ (e.g. Babyonyshev 1997), since they pattern semantically as nouns. Apart from behaving like arguments (in 2a), they can act as antecedents for reflexive pronouns (in 2b) as well as for personal pronouns (2c), though judgments may vary here between speakers (since possessive adjectives in Polish tend to be regarded as old-fashioned or dialectal forms).

(2) a. dziadkowy pogrzeb ‘Grandpa’s funeral’
b. wujkowy film o sobie, ‘uncle’s film about himself’
c. Przepijemy babcię, ‘let’s drink with grandma’
drink-through.Fut.1PI grandma.PA| pension her, not be.Fut.3Sg needed
‘We’ll drink the grandma’s pension away. She won’t need it.’

Rappaport (2004) suggests treating Slavic possessive adjectives as a hybrid category [D, N, Adj]. If hybrid categories are not postulated, and if referentiality is regarded as diagnostic of nouns (as in Baker 2003), then possessive adjectives can be identified as nouns (dominated by a nominal projection), similarly to relational adjectives.

Relational adjectives in some contexts exhibit a qualifying reading and denote properties (as in 3). Possessive adjectives can similarly lose referentiality and call for the similitudinal reading ‘like X’, similar to X’ (as in 4). The occurrence of property-reading can be treated as indicating the presence of a full (non-defective) adjectival suffix which is able to project an adjective phrase (cf. Fábregas 2007 for Spanish).

(3) bandyckie ceny ‘exorbitant prices’

(4) a. Kapuścisz na słowach zamieniamy na babicinę chustki.
‘We replace hats on our heads with grandma-like (“babushka-type”) headscarves.’
b. Czy potrafisz zrobić wujkowe grzanki?
‘Can you make such uncle-ish toasts for me? (i.e. a type of toasts that the uncle makes or used to make)’

Interestingly, referential genitive phrases occur prenominally in colloquial Polish, as in (5) (cf. Bialynicka 2008 for similar examples in event nominals).

(5) a. Czy możesz mi pokazać Basia (*Basiä) wypracowanie?
if can.2Sg me.Dat show Basia.Gen (*Basiä.PA) composition
‘Can you show me Basia’s composition?’
b. Mojego męża kolega pracuje w ministerstwie rolnictwa.
my.Gen husband.Gen friend.Nom work.3Sg in ministry.loc agriculture.Gen
‘My husband’s friend works in the ministry of agriculture.’

Such a usage of a genitive DP as a replacement for the corresponding obsolete possessive adjective is conventionalized for the honorific forms Pani ‘You.Fem’ (lit. ‘lady.madam.Gen.Sg’) or Papa ‘You.Masc’ (lit. ‘Sir.Gen’).

(6) a. Gdzie jest Pani (*Paniny) bilec?
where is lady.Gen (*lady.PA) ticket
‘Where is your ticket, Madam?’
b. Proszę mi podać Pana (*Panowy) kapeluszu.
please me.Dat give Sir.Gen (*Sir.PA) hat
‘Give me Your hat, Sir.’

The data in (5-6) can be viewed as exemplifying discourse-related word order inversion, where the genitive DP moves to the TopP in a split DP (cf. Giusti 2005 for Romanian). However, if the distribution of a given lexical item is regarded as crucial to its categorization, then such pre-head elements in a noun phrase as Pani ‘You.Fem’ in (6a) could be potentially included in the class of adjectives.

Selected references


Expressive constructions indicate the speaker’s attitudes and emotions towards the content of speech (Potts 2003, 2007). For example, in (1), the English expressive *-nin* indicates that the speaker views Sam positively; while in (2), the English expressive *bastard* indicates that the speaker views Sam negatively.

(1) Japanese: Sam-ga *-warai-ninat-ta.
Sam-NOM.SG HONOUR-laugh-HONOUR-PAST
‘Sam laughed (honorific: the speaker views Sam with respect)’ (Potts & Kawahara 2004: 238)

(2) English: That *bastard* Sam was late for work yesterday.

(Potts 2007: 165)

What makes expressive constructions particularly interesting is the fact that their meaning (‘function’) is similar across languages, but their syntactic structure (‘form’) differs significantly from one language to the next. This suggests that there is no 1:1 correlation between form and function of expressive constructions, which has important implications for the syntax–semantic mapping of categorization. Modern approaches to categorization assume vague function *al criteria* to identify the category of expressive constructions, but these approaches lack precise formal criteria. In this work, I develop and refine such formal criteria.

2. Relation to previous work: This research expands and develops from my previous work on expressive morphology in Russian (Steriopolo 2009). In previous work, I conducted a detailed investigation of 30 single expressive suffixes in Russian. I argued that although the suffixes under investigation comprise a homogeneous class in terms of their function (they all indicate the speaker’s attitudes and emotions), they are heterogeneous in terms of their syntactic form. I showed that Russian expressive suffixes belong to at least three different syntactic classes, which differ in the place and manner of attachment (Table 1).

Table 1: Russian expressive suffixes

<table>
<thead>
<tr>
<th>Manner of attachment</th>
<th>Place of attachment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below word-level</td>
<td>Russian affective and vulgar suffixes</td>
</tr>
<tr>
<td>Above word-level</td>
<td>Russian affective and vulgar suffixes</td>
</tr>
<tr>
<td>Change in properties of the base (‘head’)</td>
<td>Russian diminutive and augmentative suffixes</td>
</tr>
<tr>
<td>No change in properties of the base (‘modifier’)</td>
<td>?</td>
</tr>
</tbody>
</table>

If this system is correct, we expect a fourth class—which is not attested in Russian (note the empty cell in Table 1)—to be attested across languages. This type is attested in a language not related to Russian, namely in an endangered Canadian First Nations language, Halkomelem Salish. The expressive constructions in Russian and Halkomelem have the same function, but they differ in syntactic form. Thus, the following empirical question arises: What syntactic classes of expressive constructions are attested across languages? I propose that the answer to this question depends on the domain in which expressive constructions are investigated. I investigated expressive constructions in the low nominal domain (attaching either below or above the word-level; see Table 1). However, we expect that expressive constructions can also be found in the higher nominal domain, attaching to Number and Detener (assuming a hierarchy of phrases, as indicated in (3)). For example, in Tongan (Polynesian), expressive constructions do not need to attach to nouns; instead, they can attach to determiners (i.e., articles): *si‘i hōsī ‘this (expressive determiner) horse.’ With this respect, we can pose another research question: Are expressive constructions also found in the verbal domain, as illustrated in (4)?

(3) Nominal Domain

\[ \text{NOM.SG} \Rightarrow D \Rightarrow \#(\text{Number}) \Rightarrow n \Rightarrow \text{vRoot} \]

(4) Verbal Domain

\[ \text{C} \Rightarrow \#(\text{Verb}) \Rightarrow \text{vRoot} \]

3. Impact: In this work, I develop formal criteria to identify the category of expressive constructions. Although a lot of descriptive work has been entirely devoted to expressive constructions (Bratus 1969; Potts 2003; Schneider 2003; Stankiewicz 1968; Tsujimura 1978; Volek 1987), such formal criteria do not currently exist. It has been assumed in the literature that identity in form follows directly from identity in function. The current proposal will challenge this assumption. As such, this work has the potential to trigger a whole new direction of research on categorization.

Bibliography


