LAGB2009

The 2009 Annual Meeting of the
Linguistics Association of Great Britain

Fiftieth Anniversary
Golden Jubilee Meeting

ABSTRACTS BOOKLET

University of Edinburgh
6th-9th September 2009

Indefinite Topics in Italian and Greek

Dora Alexopoulou (ta259@cam.ac.uk) & Raffaella Folli (r.folli@ulster.ac.uk)
University of Cambridge, University of Ulster

The problem: We propose an account of an unexpected contrast between Greek and Italian CLLD, namely Greek CLLD-ed indefinite DPs necessarily receive a specific interpretation in (1a) while Italian allows both a specific and non-specific interpretation in (b).

(1) *a.* *ena artrho tu Chomsky to diavase kathe fititis*
a/one article the-gen Chomsky it-cl read-3sg each student-nom.sg
An article of Chomsky each student read (it). (Only wide scope for "ena arthro")

b. *Un articolo di Chomsky ogni studente l'ha letto*
An article of Chomsky every student it-cl has read (Ambiguous)

Further, indefinite topics as in (2) differ in two crucial respects: (**A**) Italian necessarily involves a clitic, while in Greek we have a gap; (**B**) the Greek example involves a bare NP:

(2) a. *Gramatea tha (*ti) vrite sigura* b. *Una segretaria *(la) trovi facilmente*
Secretary will find-2pl certainly *a secretary her.find-2pl easily*

These contrasts are surprising given that in both languages CLLD, the main strategy for discourse topics, appears otherwise identical (sensitive to islands, no weak crossover, no parasitic gaps, unavailability of non-d-linked quantifiers).

Analysis: We argue that the contrasts in (1) & (2) relate to two other differences between Greek and Italian: (**C**) (weak) indefinites in Italian are systematically expressed through the *bare partitive construction* ('dei …') as in (3a); this construction is unavailable in Greek, which, instead employs bare nominals (3b); (**D**) bare nominals license object drop in Greek: in (3b) the pronoun is ungrammatical in the second sentence (Dimitriadis 1994, Giannakidou & Merchant 1997, Tsimpli & Papadopoulou 2006). By contrast, object drop (except from arbitrary object drop, Rizzi 1986) is unavailable in Italian; instead a clitic *ne/li* is used (3a).

(3) a. *Gianni ha cercato dei libri ma non li/ne ha trovati*
Gianni has looked for of the books but not them/them part. has found

b. *i Maria epsahne dada ena hrono ke telika (*ti) vrike meso mias gnostis*
*the-nom Maria was-looking-for-3sg nanny one year and finally (*her) found-3sg through an acquaintance*

Our hypothesis is that the contrasts in (**A**)-(**D**) are reduced to a single difference, namely the availability in Greek of determinerless argumental NPs with weak indefinite interpretations (while kinds are full DPs), placing Greek among the NP[+arg, +pred] languages. On the contrary, Italian does not allow bare NPs, following standard assumptions that bare nominals in Italian are DPs with a null D, Longobardi 1994, Chierchia 1998 among others. The assumption confirms Chierchia's hypothesised correlation between the existence of bare NPs and the absence of the bare partitive construction in a language and accounts for the wider distribution of bare nominals in Greek. The existence of bare NPs naturally explains the availability of object drop in (3a) as NP ellipsis (see Tomioka 2003). Object drop is licensed not only by bare nominals but by weak indefinites more generally (Giannakidou & Merchant 1997). Following Giannakidou & Merchant (1997) we take weak quantifiers to instantiate adjectives modifying NPs. It, then, follows that object drop is only available with (weak) indefinites since definites necessarily involve a DP. Linking Greek object drop to argumental bare NPs immediately explains its absence from Italian, since bare NPs are unavailable in Italian. The CLLD facts in (1) and (2) also follow. Bare NPs cannot be resumed by a DP pronominal in Greek; instead they are just topicalised (2a). By contrast, indefinites are always DPs in Italian and can be resumed by a D-pronominal clitic (2b). Finally, Greek differs from English since bare NPs cannot be used for kinds. The featural make-up of the determiners is relevant for such contrasts: the Greek determiner (article and pronoun) appears associated with stricter referentiality conditions than the English ones.

Binding by Phases

Andrei Antonenko (andant@gmail.com)
Department of Linguistics, Stony Brook University

The major goal of this paper is to argue based on Russian data that binding Principle A applies cyclically at phase levels, and derive the conditions when the application of the Principle A is allowed to be postponed.

In the first part of the paper I propose an account for the subject obviation phenomenon (Farkas 1992, Avrutin and Babyonyshev 1997) in Russian (1).

(1) a. *Volodja$_i$ xočet čtoby on$_i$ poceloval Nadju. *(Ru, Subjunctive)*
V. wants COMP.SUBJ he kissed N.
b. Volodja$_i$ skazal čto on$_i$ poceloval Nadju. *(Ru, Indicative)*
V. said COMP he kissed N.
'Volodja$_i$ wants to kiss Nadja' / 'Volodja$_i$ said that he$_i$ kissed Nadja'

The pronominal subject of the embedded clause cannot be coreferential with the matrix subject if the embedded clause is subjunctive. Using the framework of Pesetsky and Torrego (2001, 2004) I propose that the subjunctive form of the verb bears an unvalued T-feature, while for the indicative verbs the T-feature is valued. A Tense sharing between matrix and embedded verbs in the adopted framework results in a movement of the featural complex of the embedded nominative subject (*on* 'he' in (1)) to the matrix clause (since nominative case is a T-feature on D), which causes a violation of Principle B. In (1b) no featural movement takes place and thus no violation of Principle B occurs (no locality).

In the second part of the paper I propose that binding principles operate on phase level. I consider the asymmetry (2) in Russian (note that in unscrambled versions of both sentences antecedent of the anaphor can only be an embedded subject).

(2) a. Ivan$_i$ [svoego$_{*i/j}$ soseda] slyshal čto Petr$_j$ pobil t *(Ru, Indicative)*
I. self's neighbor heard COMP Peter beat
b. Ivan$_i$ [svoego$_{i/j}$ soseda] xočet čtoby Petr$_j$ pobil t *(Ru, Subjunctive)*
I. self's neighbor wants COMP.SUBJ P. beat
'Ivan$_i$ heard that Peter$_j$ beat his$_{*i/j}$ neighbor' / 'Ivan wants Peter to beat his neighbor'

Neither of the previous theories can explain this asymmetry. If TP is a binding domain it is unexpected why the anaphor does not get bound immediately when the lower TP is completed, and why the matrix antecedent is possible. Under derivational theory of binding, it is unclear why the matrix antecedent is impossible as a binder in (2a). My analysis of this contrast is based on the following two assumptions: (i) Binding operates cyclically at phase level, (ii) Send the phase to interpretation as early as possible. Under these assumptions, the asymmetry can be accounted as follows. In indicatives (2a) the tense-feature of the embedded T is valued by the embedded verb, and therefore the embedded CP phase can and has to be closed and sent off to interpretation; the only possible antecedent for the anaphor within this phase is an embedded subject. If the embedded clause is subjunctive (2b), the embedded tense-feature is still unvalued at the level of the lower CP phase (according to my proposal from the first part of the paper). Thus, the CP cannot be sent off to interpretation, and the evaluation of the binding relations can be postponed: the anaphor is allowed to be left unbound within this phase and can get bound at the level of the matrix vP phase; in this case the matrix subject will serve as an antecedent. Notice that nothing prevents an anaphora from getting bound within the embedded clause, with embedded subject as an antecedent in (2b).

At the conclusion, I demonstrate how this analysis can be extended to explain the contrast between Russian where the long-distance binding is impossible in subjunctives, and Icelandic where long-distance binding is allowed if the embedded clause is subjunctive. I propose that this contrast follows from the fact that verb raises to T in Icelandic and not in Russian.

Non-nominal *Which*-Relatives

Doug Arnold, Robert D. Borsley
doug@essex.ac.uk /rborsley@essex.ac.uk
University of Essex

An important difference between restrictive and non-restrictive relative clauses is that the latter allow an antecedent which is not an NP. Some examples are a natural consequence of the fact that other categories may introduce an abstract entity into the discourse which can be referred to in various ways. It is not surprising that *Kim was late* can be followed by *which was unfortunate* given that it can be followed by *and it was unfortunate* or *and that was unfortunate*. However, examples like the following, highlighted by Huddleston and Pullum (2002: 1523), are different, in that *which* cannot be replaced by some other referring expression:

(1) Kim is sleeping, which Lee isn't/*but Lee isn't it/that.
(2) Kim is clever, which Lee isn't/*but Lee isn't it/that.
(3) Kim is in Spain, which Lee isn't/*but Lee isn't it/that.

We call these relatives non-nominal *which*-relatives (NNWRs). These examples contain a gap which is the complement of an auxiliary. Similar examples where the gap is complement of a lexical verb are bad, as the following illustrate:

(4) *Kim tried to impress Lee, which Sandy didn't try.
(5) *Kim persuaded Lee to go home, which he didn't persuade Sandy.

Standard non-restrictive relatives involve a filler-gap construction, and one might assume that this is what we have here. The complement of an auxiliary is fronted in so-called VP-fronting sentences such as the following:

(6) They say Kim is sleeping, and sleeping he is.
(7) They say Kim is clever, and clever he is.
(8) They say Kim is in Spain, and in Spain he is.

One might propose that *which* in (1)-(3) is a fronted auxiliary complement. However, an ordinary VP complement of an auxiliary cannot be a filler in a relative clause. Thus, **This is the book, read which Kim has* is not possible as an alternative to *This is the book, which Kim has read*, and **This is the book, reading which Kim is* is not possible as an alternative to *This is the book, which Kim is reading*. Moreover, if *which* can be a VP one might expect examples in which it is preceded by infinitival *to*. One might expect not just *Kim ought to go home, which Lee ought to as well* but **Kim ought to go home, to which Lee ought as well*. As we will show, treating *which* as a nominal filler fares no better.

We will develop an alternative analysis within HPSG, in which the gap is the result of the mechanism responsible for VP-fronting and so-called VP-ellipsis (which is really auxiliary complement ellipsis) but *which* is a complementizer, taking as its complement a finite clause containing a gap and heading a constituent which modifies an expressions with the same semantic properties as the gap. This will not only deal with the data presented above, but allow us to capture a range of parallels between NNWRs and VP-ellipsis, e.g the following:

(9) Kim is thinking of leaving, and Lee will *(be) soon. (Potsdam, 1997)
(10) Kim is thinking of leaving, which Lee will *(be) soon.

Inflection classes without allomorphy

Matthew Baerman (m.baerman@surrey.ac.uk)
Surrey Morphology Group, University of Surrey

Carstairs' (1987) Paradigm Economy Principle (PEP) introduced the idea that there is a structurally defined upper limit on the number of inflection classes that a language can maintain. In its most recently elaborated version (Müller 2007), the PEP is derivable from independent constraints on features and underspecification, and yields the following prediction: the maximum number of inflection classes within a system is 2^{n-1}, where n = the number of affixes. Although the PEP has its detractors (e.g. Halle & Marantz 2008, Stump 2006), the idea persists that the empirical observation it encodes – that inflectional classes are restricted in their number and composition – is roughly correct. In this paper I discuss some violations of the PEP that are so extreme that neither the empirical generalizations nor the analytical presuppositions alleged to explain them can be maintained. These violations occur where inflectional classes are defined not by allomorphy, but by the varying distribution of a limited set of exponents.

In the Nasir dialect of the West Nilotic language Nuer as described by Wright (1999) a mere three case-number suffixes (-Ø, *-kä* and *-nḭ*) generate 17 declension classes, due to the variable function of the suffixes: depending on the noun, *-kä* can be genitive singular or locative singular or both, while *-nḭ* can be used for any combination of nominative, genitive and locative in the plural. The mapping between the four singular and seven plural patterns is equally unconstrained:

NOM SG	Ø	Ø	Ø	Ø
GEN SG	Ø	-kä	-kä	Ø
LOC SG	-kä	-kä	Ø	Ø

singular patterns

NOM PL	-nḭ	Ø	-nḭ	Ø	Ø	Ø	Ø
GEN PL	Ø	Ø	-nḭ	-nḭ	-nḭ	-kä	Ø
LOC PL	-nḭ	-nḭ	-nḭ	-nḭ	Ø	-nḭ	Ø

plural patterns

(Müller's formula predicts a maximum of eight classes.) While this is fairly unusual as an affixal pattern, such situations arise more frequently where inflectional features are marked prosodically, since prosodic inflectional classes will typically involve the redistribution of a small set of elements. Thus in Oto-Pamean language Chichimec (de Angulo 1933), three pitch types (high-low, low-high and high-high) are distributed across the four principle parts of the verbal paradigm to yield 12 classes:

	I	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*	*XI*	*XII*
1	L-H	H-H	H-H	H-L	H-L	H-L	H-L	H-L	H-L	L-H	H-H	H-L
2	H-L	H-L	H-L	L-H	L-H	H-L	L-H	L-H	H-L	L-H	H-H	L-H
3SG	L-H	H-H	H-H	L-H	H-L	H-L	H-H	H-L	H-L	L-H	H-H	H-L
3PL	L-H	H-H	L-H	L-H	L-H	L-H	H-H	H-H	H-L	L-H	H-H	H-L

It may be significant that these extremes of paradigmatic opacity occur in languages with a heavy degree of lexical specification of stem alternations: Nuer nouns have from one to five distinct stems, Chichimec verbs from one to four (and significantly, there are no reliable implicational relationships between the stem alternations and inflection classes). We suggest that lexical storage of a substantial portion of each paradigm is a crucial factor in maintaining such high degrees of inflection class complexity, which in other circumstances would be levelled out.

Sentence-final question particles as apparent FOFC-violators

Laura Bailey (l.r.bailey@newcastle.ac.uk)
School of English Literature, Language and Linguistics / CRiLLS, Newcastle University.

1. This paper presents preliminary research into polar ('yes/no') question particles and the problems they pose for an analysis of the particle as a C head with respect to the Final-Over-Final Constraint (e.g. Biberauer, Holmberg & Roberts 2008), which rules out a configuration in which a head-initial phrase is immediately dominated by a head-final phrase.

2. Polar questions in many languages are formed with a question particle. The particle may be initial, final, as in Maybrat (1) (Dol 2007: 178), or in some other position, usually second.

(1) Ana m-amo Kumurkek **a** = 'Are they going to Kumurkek?'
3P 3U-go Kumurkek **Q**

3. Those particles that are sentence-final and co-occur with Verb-Object word order are in violation of the Final-Over-Final Constraint (FOFC), as (2) illustrates:

(2) $[_{CP}\ [_{TP}\ \mathbf{T}\ [_{vP}\ \mathbf{v}\ [_{VP}\ \mathbf{V}O\ ]\ ]\ ]\ \mathbf{C}\ ]$

It would be expected that no languages would have this configuration, yet in the sample analysed by Dryer (2008a, 2008b), 135 languages are given as VOC, compared to only 127 OVC (harmonic), 75 CVO (harmonic) and 34 COV (non-FOFC-violating disharmonic). Question particles are generally classified as being part of the extended CP, but other complementisers do not exhibit such widespread FOFC-violation: only two languages have final adverbial subordinators and VO order (Dryer 2008a, 2008c). Discourse elements such as question particles therefore do not behave like normal C elements, and the question arises of how they should be classified.

4. Many of the languages with the FOFC violation have a question particle that is phonologically similar to the disjunction, which indicates that a plausible hypothesis is that the particle *is* the (clause-initial) disjunction, with the second disjunct elided. Data from a number of such languages support this hypothesis, as in (3)-(4):

(3) Ó la bá sekola **ká**? = 'Didn't you go to school?' (Tetun)
2S not go school **or** (Van Klinken 1999: 212)

(4) N̈inho **ua**? = 'Did you hit it?' (Lenakel, Lynch 1978: 96)
Hit.2S.PERF **or**

Aldridge (2009), arguing for a related theory for Mandarin Chinese, also shows that the particle *ma* is historically related to the negative/disjunctive despite their non-resemblance in the modern form of the language.

The theory of FOFC in Biberauer et al. (2008) predicts that the disjunction should not be reanalysed as a polarity head C in clause-final position, if it is not categorially distinct from T (i.e. non-verbal). Diagnostics are therefore required to differentiate disjunction from polarity heads. If the particle can occur in embedded clauses, this indicates that it cannot be the disjunction. Negative polarity items (NPIs) such as *anything* must be in the scope of the question particle (the elided clause) and therefore should not appear in the non-elided clause. Estonian partially disproves the hypothesis: the question particle *või/vä* is derived from the disjunction and can only appear in matrix clauses. However, it can appear with negative polarity items:

(5) Nägid sa üldse midagi **vä**? (Anne Tamm, p.c.)
see.2SGPAST you at-all anything-something **or**

(5) also employs verb-subject inversion as a question marker, which potentially licenses the NPI. The question then is whether the NPI can occur with the particle alone, and SVO word order, to which the answer appears to be yes (with a number of complications) (Anne Tamm, p.c.). These facts taken together indicate that the particle may be a higher head taking a CP complement, in which case FOFC may need to be modified.

Predicate-doubling in Afrikaans: facts and comparisons

Theresa Biberauer (mtb23@cam.ac.uk)
University of Cambridge/Stellenbosch University

Probably best known for its productive reduplication possibilities and its *nie*-repetition-based Negative Concord system, Afrikaans also features a reiteration process that has not previously received systematic attention in the literature: p(redicate)-doubling like that illustrated in (1):

(1) a. ***Sing*** *sal hy* ***sing****!*
sing shall he sing = "Sing, he will!"
b. ***Sukkel sukkel*** *ek!*
struggle struggle I = "Struggle I certainly do!"
c. ***Dom*** *is sy nou eenmaal* ***dom****!*
stupid is she now one-time stupid = "She is just undeniably stupid!"

As the translations show, these structures necessarily have emphatic interpretations, which can broadly be connected to Verum Focus (cf. i.a. Höhle 1992, Liptak 2003). This is also a property of p-doubling structures more generally (cf. i.a. Larson & Lefebvre 1991 on Haitian Creole, Koopman 1997 on Vata, Cable 2003, 2004 on Yiddish, Landau on 2004, 2005 on Hebrew, Vicente 2007 on Spanish, Kandybowicz 2008 on Nupe, Martins 2008 on European Portuguese). This paper aims to give a first description of the morphosyntactic, phonological and semantic properties of the Afrikaans construction, and to consider how it is similar and different to those in other languages whose p-doubling properties are better studied.

On the morphosyntactic front, the structure is strikingly limited to morphologically simple predicates: particles verbs cannot undergo fronting and neither may complex adjectives (e.g. *dikdom* – "thick-stupid" can't replace *dom* in (1c)). From a V2 perspective, the structure is also interesting as the first-position element does not seem to have undergone the usual type of fronting operation from the lower clausal domain: where lower copies of moved elements are suppressed in "normal" V2 clauses, this is not the case here (crucially, the duplicated elements require very specific phonological realisations). The Afrikaans equivalent (in semantic terms) of predicate fronting – also a doubling structure – underlines the problem even more starkly:

(2) *Hy het gesê hy sal sing en* ***sing*** *het hy* ***gesing****!*
he has said he shall sing and sing has he sung
"He said he would sing, and sing he did!"

As (2) shows, reiteration structures need not feature identical verb-forms (cf. also Cable 2004 on Yiddish). This raises the question whether it is in fact feasible to assume that the first-position element originated in a lower domain (a core assumption in analyses like Müller 2004, but see Frey 2002). Also relevant here is the question whether the first-position verb is part of a fronted remnant VP or not (cf. Den Besten & Webelhuth 1989 on German and Dutch structures featuring a fronted verb which is not, however, reiterated). Structures like (1b) raise an additional question, namely how they can circumvent the haplology/OCP mechanism that rules out adjacent spellout of *nie*s in Afrikaans (cf. also Neeleman & van de Koot 2006 and van Riemsdijk 2008 for discussion of further relevant cases in a range of languages):

(3) a. *Ons het nie verstaan nie*
us have not understood NEG = "We didn't understand"
b. *Ons verstaan nie (*nie)*
us understand not = We don't understand"

Biberauer (2008) proposes a syntax-PF mapping in terms of which the (im)possibility of adjacent phonologically identical elements is regulated on the basis of whether these elements occupy the same prosodic phrase (ϕ in Selkirk (1995) and Truckenbrodt (2005)'s terms) or not. As will be shown, this proposal facilitates important insights into the structure of Afrikaans p-doublings more generally.

Grammaticalization in progress: insights from the case of *angore*

Theresa Biberauer & Roberta D'Alessandro
(mtb23@cam.ac.uk & r.dalessandro@hum.leidenuniv.nl)
University of Cambridge/Stellenbosch University and Leiden Universiteit

This paper focuses on a previously undiscussed lexical peculiarity in the Central Italian dialect Abruzzese which, we argue, offers a telling insight into the structural make-up of feature-bundles, while also enabling us to tease apart the components of grammaticalisation processes in which elements become "more negative" (cf. Jaeger 2008 for recent overview discussion).

In Abruzzese, the adverb *angore* (*ancora* – "still" in regional Italian) indicates both that an action is still taking place (1a) and, paradoxically, also that it has not yet done so (1b):

(1) a. *Magne angore*
eats still = "(S)he is still eating"

b. *Angore magne*
still/yet eats = "(S)he hasn't eaten yet"

The same is true in the past tense:

(2) a. *Me tene' 'ngore fame*
to-me held-IMPERF. still hunger = "I was still hungry"

b. *Angore me tene' fame*
yet to-me held- IMPERF. hunger = "I wasn't hungry yet"

Angore's distribution is puzzling in various ways. Firstly, its meaning varies depending on its position: postverbal *angore* = "still"; preverbal *angore* = "not yet". Secondly, it is incompatible with perfective aspect, regardless of its positioning (3), a surprising fact given that *yet* adverbials, in contrast to *still* adverbials, usually select bounded events, thus being incompatible with imperfective aspect (cf. Iatridou et al. 2001, Verkuyl et al. 2005, van Geenhoven 2005).

(3) **(Angore) a magnate (angore)*
still has eaten still

One approach to the peculiar distribution and double meaning of *angore* might be to view preverbal and postverbal *angore* as distinct, accidentally homophonous lexical items. This explanation, however, cannot account for the aspectual restriction common to the two forms. Building on a proposal put forward by Szabolcsi (2004), we therefore suggest that postverbal *angore* is a positive polarity item (PPI), while preverbal *angore* is a negative polarity item (NPI), derived from the former via grammaticalisation. According to Szabolcsi, PPIs have two NPI-features, viewed as negation features (¬; cf. also Postal 2000), that need to be both licensed and activated. In these terms, the semantics of a sentence like *He saw someone* would, for instance, be $\lambda P \neg \neg \exists x[\text{person}(x) \ \& \ \text{he\_saw}(x)]$. To have a uniform syntax/semantics-morphology mapping, Postal proposes that the lower ¬ is deleted by the higher one, and that the higher ¬ can be deleted by raising or via an appropriate licenser.

Starting from these assumptions, we propose that preverbal angore constitutes the output of a still incomplete process of grammaticalization targeting postverbal *angore*, whereby one of the PPI's ¬ features becomes bleached (i.e. deleted). When *angore* loses one of its two ¬ features, acquiring a purely negative meaning, it then needs to appear preverbally for this ¬ feature to be licensed (cf. i.a. Haegeman & Zanuttini 1991, Haegeman 1995, Szabolcsi 2004). That we can find *angore* both pre- and postverbally is due to the fact that the grammaticalization process is not completed yet. This is also clearly shown by two other properties, namely (i) the fact that the "yet" and "still" forms of *angore* are phonologically identical (i.e. no phonological reduction associated with the new, negative "yet" form) and (ii) the fact that both *angore*s select imperfective aspect (i.e. that appropriate to the original "still"-adverb). We therefore see that loss of a syntactico-semantic feature may result in upwards reanalysis, as expected in generative terms (cf. i.a. Roberts & Roussou 2003, van Gelderen 2004), but that this development may occur prior to other components of the grammaticalisation process (phonological and lexical restructuring). In particular, the case of *angore* shows us that the internal properties of an element (here a clausal satellite) may change before the externally (selection) oriented ones relating it to the "spine" with which it connects, pointing to further evidence, firstly, for postulating structured feature bundles and, secondly, for drawing a distinction between Agree-(internally) and Selection(externally)-oriented features (cf. also Rizzi 2008, Adger & Svenonius 2009). This latter insight may also shed important light on the much-discussed issue of how the originally non-negative elements acting as negative reinforcers at Stage II of Jespersen's Cycle ultimately become reanalysed as genuinely negative elements serving to signal clausal negation. More generally, it opens up the possibility that grammaticalisation at the syntactic level may in fact require two distinct changes: a first one affecting the properties of Agreeing features and a second affecting its Selection features.

Selectional restrictions on cognate objects in Eleme

Oliver Bond (oliver.bond@soas.ac.uk)
Department of Linguistics, SOAS

The Cognate Object Construction (COC) is the use of an inflected verb in combination with a noun phrase containing an element that (i) exhibits an isomorphism with (or a derivationally or suppletively related form to) the verb with which it is associated, and (ii) has only some of the syntactic or morphological properties of a 'regular' well-formed syntactic object formation. For example, in the Eleme (Ogonoid, Benue-Congo) construction *mì-bé òbe* 'I fought (a fight)', the inflected verb root *bé* 'fight' is followed by a cognate form *òbe* in the object position. The use of the COC is particularly well-developed among the languages of Africa, being found in unrelated language groups of northern, eastern and western Africa (and indeed in languages in other parts of the world) but the cross-linguistic properties of COCs vary and are yet to be fully explored.

In this paper, I examine Hale and Keyser's (1993, 2002) claims that unergative verbs in languages like English and Basque are "denominal", in relation to languages like Eleme, in which comparable unergative verbs require a cognate object with nominal-identifying morphology. In particular, I discuss the vestigial noun-class marking that distinguishes Eleme cognate objects (and other NPs) from verbal forms, and consider the derivational relationship between the two classes. In light of the similarities between Eleme COs and other NPs in complement position, I critically examine which morphosyntactic properties of cognate objects are associated with 'regular objecthood' in the language. Following this, I explore the types of semantic restrictions that exist on the selection of a non-cognate forms in complement position where a cognate form would otherwise be possible.

Using data drawn from original fieldwork on Eleme, I show that COCs are frequently used in Eleme narratives to convey discrete (often repeated) telic events, making them different from the adverbial COCs of European languages and providing a possible link to the intensification readings common to COCs in African languages. Explanations for selectional restrictions on the use of cognate objects are thus provided with reference to (i) differences in the informational purpose of COCs and verbs with genuine argument realization, and (ii) the strength of collocational dependencies between the cognate objects and the verbal series with which they are semantically and grammatically associated.

Hale, Kenneth & Samuel Jay Keyser. 1993. 'On argument structure and the lexical expression of syntactic relations'. In Kenneth Hale & Samuel Jay Keyser (eds.), *The view from building 20: Essays in Linguistics in honor of Sylvain Bromberger.* Cambridge, MA: MIT Press.

Hale, Kenneth & Samuel Jay Keyser. 2002. *Prolegomenon to a theory of argument structure* (Linguistic Inquiry Monographs). Cambridge, MA: MIT Press.

Constructions, Functional Heads, and Comparative Correlatives

Robert D. Borsley (rborsley@essex.ac.uk)
University of Essex

Informal discussions of syntax often talk about constructions, and constructions are central to some approaches to syntax, notably recent versions of Head-driven Phrase Structure Grammar (HPSG). Chomsky, however, has long claimed that constructions do not exist. The main alternative is functional heads, which are typically invisible. Instead of stipulating e.g. that some construction has X as is first daughter one stipulates that some functional head has X as its specifier. The comparative correlative (CC) construction, exemplified by *The more I read, the more I understand*, provides an important testing ground for these approaches.

The CC construction has some unusual properties. It does not allow a pied piped preposition before the initial comparative phrase. Thus, *The more people I talk to, …* is fine, but **To the more people I talk,…* is not. It also allows the complementizer *that* after the initial phrase, as in *The more that I read, the more that I understand*. The construction also shares some properties with other constructions. It is similar in certain respects to the reversed CC construction, exemplified by *I understand more, the more I read*, and other S + adjunct structures, and also to the *if-then* and *as-so* constructions. The component *the*-clauses share properties with other filler-gap constructions, such as *wh*-interrogatives and relative clauses, and resemble what Huddleston and Pullum (2002) call exhaustive conditionals in allowing copula omission under certain circumstances. Thus, just as we have *The better the students* (*are*)*, the better the grades* (*are*), we also have *However good the students* (*are*)*, …* and *No matter how good the students* (*are*)*, …*

A satisfactory analysis must capture both the distinctive properties of the construction and its parts and the properties that they share with some or many other constructions. An unstructured set of constructions each with its properties would make no distinction between the various kinds of properties, but HPSG with its hierarchical classification of constructions can do this. It can analyse the CC, *if-then* and *as-so* constructions as subtypes of *correlative-clause* and the latter as a special subtype of *head-adjunct-phrase*. It can also analyse *the*-clauses and exhaustive conditionals as special subtypes of *head-filler-phrase*. This allows both distinctive and shared properties to be accommodated. What about a functional head-based approach? This will require three functional heads for the CC construction, one for the construction as a whole and one for each of the *the*-clauses (because they have somewhat different properties) It will require many others for the related constructions. It seems to be assumed that the lexicon includes an unstructured set of functional heads. If so, however, it will not distinguish between the various kinds of properties. This is an important weakness. On the face of it, the only way to overcome it would be to propose a hierarchical classification of functional heads. However, this would essentially be mimicking the HPSG construction-based approach.

Indefinites and negation in the history of Low German

Anne Breitbarth (ab667@cam.ac.uk)
University of Cambridge

The present paper traces the use of indefinites (pronouns, determiners and adverbs) in the scope of negation in the history of Low German (LG). It considers what type of indefinite (neg-marked or not) is used and how indefinites interact with the markers of sentential negation at the different stages of Jespersen's Cycle (JC), which the language undergoes over the period under consideration. In particular, the paper will look at whether neg-marked indefinites (n-words) can co-occur with the marker of sentential negation (negative doubling) and/or with each other (negative spread). We will discuss the problems Zeijlstra's (2004) account of negative concord (NC) and JC meets when applied to the developments observed in LG. Using a corpus spanning the 9th-16th centuries, we demonstrate the following developments from Old Low German (Old Saxon) (OLG, 800–1200) to Middle Low German (MLG, 1250–1650):

(i) older OLG (*Heliand*) prefers n-free NPI indefinites (the *not ... any*-type in English) in negative clauses, avoiding negative doubling: (1);
(ii) later OLG develops obligatory negative doubling (*not ... no*): (2)
(iii) MLG replaces the preverbal marker *ni* by *nicht*, and in general disallows negative doubling (**not ... no*) while innovating negative spread (*no one .. nothing*): (3).

This last develoment can be attributed to the weakening of the old preverbal negation marker: While sufficient to identify sentential negation in older OLG, not requiring indefinites in its scope to be n-marked as well, n-marking became more and more common in indefinites in the scope of negation as it weakened, leading first to obligatory doubling with *ni*, and then to common negative spread in MLG.

Zeijlstra's (2004) otherwise very successful account of NC is faces a number of problems when applied to the developments in LG. First, it predicts OLG to be a negative doubling language because its negator (preverbal *ni*) is a syntactic head. This is fully true only in later OLG; in the language of the *Heliand*, it is only a marginal option. Second, Zeijlstra's account does not predict the availability of negative spread with the concomitant impossibility of negative doubling as found in MLG. The latter situation can be accounted for using Penka's (2007) extension of Zeijlstra's account, distinguishing between n-words carrying [uNEG], which can be licensed by any carrier (overt or covert) of an interpretable negation feature [iNEG] and n-words carrying [uNEGØ], which can only be licensed by a covert OP¬. A problem that cannot easily be solved under either approach is the fact that in older OLG (*Heliand*), NPI indefinites can precede the negative head as in (1). This requires assuming that OLG NPI indefinites are really n-words of the Italian type (also licensed in weak (non-negative) NPI contexts). Their [uNEG] feature allows them to license themselves in preverbal position along the lines proposed by Penka (2007), viz. allowing for OP¬ to be adjoined to whichever propositional projection necessary to license a [uNEG] indefinite. Assuming older OLG NPI indefinites to be n-words would also resolve the first paradox for Zeijlstra's approach, making older OLG in fact a 'regular' negative doubling language as predicted. The historical changes observed in LG are thus the result of an interplay between changes in the properties of negative particles and indefinites in the scope of negation.

EXAMPLES:

(1) *so is **io** endi **ni** cumit*
'thus the end (of it) will never come' (Heliand 1324)

(2) *thát iu **nian** scátha **ni** uuírthid*
'that you suffer no damage' (EsG.53,31-1)

(3) *dar en willen wy **nemande nyner helpe** uop plichtich wezen*
'we will not be obliged to lend any help to anyone in this regard'(Steinfurt 08/28/1354)

An LFG analysis of Case Attraction in Modern Greek Free Relative Clauses

Kakia Chatsiou (achats@essex.ac.uk)
Department of Language and Linguistics, University of Essex

Case matching effects in relative clauses occur when the case of the relative pronoun introducing relative clauses matches the case requirements of the verb of the matrix clause and not those of the relative clause verb. Nominal Modern Greek Free Relative Clauses (henceforth FRCs), such as *ópjos*-FRCs in (1), display such matching effects, since the free relative pronoun usually takes matrix rather than subordinate case:

(1) *Filepses* ****ópios*** */ ópjon* *irthe.*
treated.$_{2SG}$ whoever.$_{MSG\cdot NOM}$ whoever.$_{MSG\cdot ACC}$ came.$_{3SG}$
'You treated whoever came.'

When FRCs are fronted, however, case matching is not required and the free relative pronoun can receive either matrix or subordinate case, as in (2a), a phenomenon referred in the literature as *forward attraction of case* (Tzartzanos, 1996: 169). The presence of the doubling clitic is necessary, demonstrated by the unavailability of the nominative case in (2b):

(2) a. *Ópjos* */ Ópjon* *irthe,* ***ton*** *filepses.*
whoever.$_{MSG\cdot NOM}$ whoever.$_{MSG\cdot ACC}$ came.$_{3SG}$ him.$_{MSG\cdot ACC}$ treated.$_{2SG}$
b. *Ópjon* */ *Ópjos* *irthe,* △ *filepses.*
whoever.$_{MSG\cdot ACC}$ whoever.$_{MSG\cdot NOM}$ came.$_{3SG}$ treated.$_{2SG}$
'Whoever came, you treated him.'

In fronted FRCs, the free relative pronoun alternatively fulfils the case requirements of the matrix clause or the FRC. This poses a challenge for unification-based frameworks like Lexical Functional Grammar (LFG), since in certain environments the value of a feature of a single f-structure (the CASE feature of the free relative pronoun f-structure) can alternatively realise the CASE of the FRC or the matrix clause grammatical function. Previous LFG analyses of FRCs will be discussed and it will be shown that the Modern Greek data cannot be accommodated using mechanisms previously proposed for case mismatching phenomena in other languages, such as indeterminacy (Dalrymple and Kaplan, 1997), underspecification (Dalrymple, King and Sadler, 2009) or lexical sharing (Wescoat, 2005).

In my LFG analysis, I treat the free relative pronoun as the head of the FRC f-structure and the rest of the relative clause as an adjunct to the free relative pronoun, a treatment similar to that of dependent (restrictive and non-restrictive) relative clauses. Building on Echevarría and Ralli's (2000) observation on the role of the doubling clitic in facilitating case alternation in clitic left dislocating constructions, I propose an alternative solution that uses anaphoric binding and relies on the use of an additional feature on the f-structures of the doubling clitic, the free relative pronoun and the within FRC thematic role. This feature, is used to restrict case alternation on the relative pronoun introducing a fronted FRC and to ensure that it takes either matrix or FRC case.

A Dynamic Syntax Approach to Clitic Climbing

Stergios Chatziyriakidis – King's College, London
kafouroutsos @hotmail.com

Recent approaches in Minimalism (Cardinaletti and Shlonsky, 2004, Cinque, 2001, 2006) argue that Clitic Climbing (CC) is the result of restructuring verbs being the lexical instantiations of FP's within the Cinquian Hierarchy (Cinque, 1999):

(1) [CP…[FP…[FP V_{restr}[FP…[$_{VP}$ V]]]]]

Concurring with Cardinaletti (2004) and Cinque (2006) as regards the functional, non-functional dichotomy, we argue that such a dichotomy and consequently CC, can receive a natural explanation once we shift into a Dynamic framework where parsing and incrementality are seriously taken into consideration. Using the Dynamic Syntax framework (Kempson et al., 2001, Cann et al. 2005), we argue that restructuring verbs have two parsing options corresponding to their lexical and functional guise. Functional verbs are assumed not to project any predicate type value as regular lexical verbs do under standard DS assumptions (Kempson et al.,2001, Cann et al., 2005), but are rather treated as providing information on the situation/event expressed by the infinitive plus its arguments, in effect an account that treats restructuring verbs as auxiliary-like. Following Chatzikyriakidis (2009), we argue that proclisis can be effectively captured assuming clitics have a parsing trigger which aborts in case a situation argument has already been constructed in the tree structure. This will mean that a clitic won't be able to get parsed after a lexical verb or an auxiliary verb has already been parsed first, since both of them are assumed to construct the situation argument node (based on the assumption that lexical verbs or auxiliaries carry tense and aspect information, at least in the clitic languages we are interested in, i.e. Italian and Spanish). Treating functional verbs as auxiliary-like, in effect assuming a monoclausal structure, climbing is predicted to be grammatical with functional verbs in the same sense auxiliary-climbing is. Optional Climbing is then the result of restructuring verbs having two parsing options, while on the contrary Obligatory and No Climbing is the result of restructuring verbs exhibiting the functional and the lexical parsing option respectively.

A number of welcoming results follow directly under such a treatment of CC. Firstly, climbing across a number of restructuring verbs is predicted to be possible under such an account, assuming that all restructuring verbs are parsed as functional verbs. The effect of that is a process of accumulation of information regarding the situation\event expressed by the lexical infinitive plus its arguments. Climbing to an intermediate restructuring verb is also predicted to be possible assuming that this restructuring verb is the first verb parsed as functional (in the sense of Cardinaletti and Shlonsky, 2004). Furthermore, unavailability of sentential negation in CC environment can be straightforwardly accounted assuming that sentential negation involves a trigger in its entry that aborts, as was argued above for clitics, in case a situation argument already exists in the tree structure.

In conclusion, we will argue that a proper formalization of CC is straightforward once we shift into a Dynamic syntactic model, correctly expressing recent intuitions with respect to climbing (functional, non – functional distinction) without resorting to added framework machinery or *sui generis* stipulations.

When Inflection is Discourse-Sensitive: Implications for Fieldwork Methodology

Clare Cook (cook5@cc.umanitoba.ca) & Jeff Mühlbauer (muehlbau@cc.umanitoba.ca)
Department of Linguistics, University of Manitoba

Plains Cree (Algonquian, Canadian prairies) pervasively uses inflectional morphology to code a (non)relation of the referent/proposition to the speaker. At the propositional level, the choice of INDEPENDENT order agreement on the verb signals this; at the referential level, both animacy and obviative marking are used (Cook 2008, Mühlbauer 2008).

(1) a. miywâsin
good.VII.IND
'It's good **to me**.'

b. ê-miywâsik
C1-good.VII-0
'It's good (to someone).'

(2) a. wâpam-ê-w nâpêw iskwêw-a
see.VTA-DIR-3 man woman-OBV
'The man saw the woman.'
(Speaker's source: **man**)

b. wâpam-ikw iskwêw nâpêw-a
see.VTA-INV woman man-OBV
'The man saw the woman.'
(Speaker's source: **woman**)

Unsurprisingly, both the verbal agreement and referential systems interact strongly with evidentials and modality.

In this paper we consider how the use of inflectional (i.e., obligatory) morphology to code discourse properties systematically presents methodological problems for those developing a syntactic or semantic analysis. Most significantly, these problems include: (i) discrepancies between running discourse and elicited speech, and (ii) the eliciting of conflicting / contradictory data. This has resulted in either avoidance of these grammatical phenomena, or analyses that cut out semantics and pragmatics entirely.

We then discuss how we think these problems can be overcome, arguing that it requires more explicitness about the relation of context to data obtained via elicitation. Considering elicitation to be a kind of linguistic *performance*, we offer a classification of *elicitation tasks*:

(i) **JUDGMENT TASK**: the consideration of the acceptability of some form.
(ii) **TRANSLATION TASK**: the transfer of some form from shared to target language.
(iii) **UTTERANCE-IN-CONTEXT TASK**: A judgement task supported by context.
(iv) **CORRECTION TASK**: The providing of a suggested fix to an offered form.
(v) **ANALYSIS TASK**: The consideration of the structure of one's own grammar.

We then show how the properties of a particular task systematically correlate with the data gathered, using verbal agreement and obviation data as test cases. With a more reticulated schema of "data collection" in hand, then, we have more transparent data: we can take results from one task and compare them profitably to results from another task; we have the tools to understand the significance of differences between elicited speech and non-elicited speech; and linguists wishing to replicate a set of data in another language are better able to actually replicate parallel data (cf. Carden & Dietrich 1979, 1982 on cross-methodological validation).

Finally, although the particular relation of inflectional morphology to discourse properties in Plains Cree forces us to consider these issues, there is evidence that the issues are in fact general to linguistic fieldwork (cf. Heringer 1970, McCawley 1979, Cornips & Poletto 2005). The challenge that Plains Cree presents, then, provides an important opportunity for the development an explicit linguistic methodology.

Pragmatics of reference in British Sign Language narratives

Kearsy Cormier* (k.cormier@ucl.ac.uk) and Sandra Smith^ (Sandra.D.Smith@bristol.ac.uk)
*Deafness, Cognition & Language (DCAL) Research Centre, University College London
^Centre for Deaf Studies, University of Bristol

Narratives in sign languages, such as British Sign Language (BSL), make use of the same referential devices as spoken languages (e.g. noun phrases and pronouns) but also use additional referential devices not found in spoken languages (although some of these devices share some properties with co-speech gesture) (Kendon, 2004; Liddell & Metzger, 1998). These devices include: a) a strategy known as constructed action (a.k.a. role shift), which involves use of the signer's head, face and/or body to describe a referent's actions, thoughts or feelings, and b) entity classifier constructions which describe the motion and location of referents within the signing space. Fluent signers are able to seamlessly switch between roles/perspectives of different referents, while still maintaining referential and discourse cohesion. Acquisition of these skills in native signers begins at about 3 years of age but progresses slowly; even by age 12, deaf children struggle with various discourse and pragmatic functions of these devices (Slobin et al., 2003).

The use of referential strategies in signed language narratives, particularly those produced by signers with varying levels of fluency and with varying ages of acquisition, is not well understood. Therefore, the current study examines how reference is established and maintained in BSL narratives produced by severely/profoundly deaf adults (native, early and late learners, N=18 total) and deaf children (native, early and minimal BSL signers, N=12 total), with varying degrees of BSL experience. The children were aged between 5;1 and 7;5. Brief narratives from each child and adult participant were elicited using a short clip from a Pink Panther cartoon. Signed productions were coded for use of noun phrases, use of entity classifier constructions, and use of constructed action. We also coded for sequential versus simultaneous uses of noun phrases, entity classifier constructions and constructed action.

Preliminary results indicate that noun phrases (e.g. the noun MAN alone or the noun phrase DET MAN 'the man') were used by all three adult groups and all three child groups, in introduction of a referent and in subsequent mentions of that referent (reference maintenance). Entity classifier constructions were used by all three groups of adults, particularly for reference maintenance. Entity classifier constructions were used largely by the native signing children; very few of the non-native signing children used anything resembling entity classifier constructions at all. Constructed action was used by all groups, both adults and children, for maintenance. Both native and non-native signing children additionally used constructed action for introduction of reference; none of the adults did this.

Results with interactions between noun phrases, entity classifier constructions and constructed action showed that a sequence of noun phrase followed by a classifier construction followed by constructed action occurred with native signers and with early signers in both adults and children (though there were very few tokens of this in the child data). This was used primarily in introduction of reference but in a few tokens for maintenance of reference. None of the late adult learners or the minimal BSL child signers used this type of sequence at all.

We conclude by showing how, despite the somewhat different referential devices available to signers, the pragmatics of reference in narratives overall appears to develop similarly in BSL and in spoken languages. Furthermore, we show how the differences between the different groups of participants (native/early/late but also child/adult) suggest that the mastery of this hierarchy could be affected by the age of acquisition and/or length of experience of sign language. These findings support other work that has shown that native input of a signed language provides an advantage for native over non-native signers (cf. MacSweeney et al., 2008; Mayberry & Eichen, 1991; Newport, 1990).

Plural semantics, classifiers, and reduplication in Indonesian

Mary Dalrymple and Suriel Mofu
Faculty of Linguistics, Philology and Phonetics
University of Oxford

Chierchia's (1998a; 1998b) Nominal Mapping Parameter connects the presence or absence of plural morphology and numeral classifiers with the mass/count distinction: in classifier languages like Japanese and Chinese, all nouns are mass nouns, plural morphology is generally absent, and classifiers are required with numerals, while in languages like English, nouns are either mass or count, count nouns are marked as either singular or plural, and numerals can appear without classifiers. Indonesian optionally uses classifiers in numeral modification:

lima (orang) guru	lima (ekor) sapi	lima (buah) meja
5 (CL) teacher	5 (CL) cow	5 (CL) table
'five teachers'	'five cows'	'five tables'

Indonesian also lacks a mass-count distinction, and so appears to behave as we would expect for a typical classifier language according to the Nominal Mapping parameter. All determiners may be used with all nouns, regardless of whether they are notionally "mass". Reduplication of a noun involves reference to multiple instances of the referent of a noun, and is possible even with notionally mass nouns like *air* 'water', giving rise not only to the interpretation 'kinds of water", but also "(specific) amounts of water". Numeral modification is also possible with notionally "mass" nouns.

Chung (2000) proposes Indonesian as a counterexample to the Nominal Mapping Parameter: she claims that reduplication corresponds to plural formation, and is problematic for the link drawn by the Nominal Mapping Parameter link between the requirement for classifiers and the absence of plural morphology. If the connection between the presence of classifiers and the absence of plural morphology does not hold up, Chierchia's transparent connection between morphological expression and semantic interpretation cannot be maintained in a simple manner.

However, Chung's argument goes through only under the assumption that Indonesian reduplication has exactly the same semantics as plural formation in a language like English. We show that Indonesian reduplication is different in a number of respects from English plural marking: (1) it is never obligatory; (2) it is dispreferred with numeral modification; (3) reduplicated nouns refer to a relatively large number of instances of the noun. Rullmann & You (2003) and Wilhelm (2008) observe similar facts in Chinese and Dëne Sųłiné, but show that these languages do exhibit a mass/count distinction; thus, the correct treatment of classifier languages cannot be based on the presence or absence of the mass/count distinction.

With Rullman & You and Wilhelm, we believe that nouns in languages with optional plural morphology are best treated as exhibiting **general number** (Greenberg, 1972; Corbett, 2000). This leads to an alternative semantics for Indonesian reduplication and an alternative set of generalisations that preserves the spirit of the Nominal Mapping Parameter while fitting better with data from Indonesian. All Indonesian nouns are mass nouns. Indonesian reduplication is a "massifier" in the terminology of Cheng & Sybesma (1999), individuating units of a bare mass noun. Indonesian numerals serve a similar purpose (see Wilhelm (2008) for a similar proposal for the non-classifier language Dëne Sųłiné, which does have a mass/count distinction); they are different from numerals in Dëne Sųłiné in that they contribute a default classifier (massifier) which may be overridden/more completely specified by an overt one, as shown above. Numeral modification tends not to be found with reduplicated nouns because such constructions involve the individuation of the same noun referent by two different means at the same time.

It matters what language you speak: (why?) East Asians do not all think alike!

Nigel Duffield & Yayoi Tajima
University of Sheffield & Keio University, Japan

Background. In a series of papers, including Masuda & Nisbett (2001), Nisbett et al (2001), Nisbett and his colleagues attribute observed behavioral differences in visual recall tasks between various groups of (East) Asian and Western participants to broad-range cultural differences that inform distinct ways of thinking in Asian and Western minds (Holistic vs. Analytic Thought). Specifically, Masuda & Nesbitt find that Japanese participants tend to report more—and more accurately—about information available in the *Ground* of a given scene, whereas American participants focus on *Figure* information at the expense of the Ground. For Nisbett et al, this contrast should be explained by the 'fact' that Asians 'think holistically', whereas Americans 'think analytically' and thus tend to abstract away from the details of particular situations. This Cultural Relativism view is striking and controversial, not least because the presumed dichotomy cross-cuts significant grammatical and discourse-related contrasts among Asian languages: in particular, the contrast between (at least superficially) head-initial languages such as Chinese *vs*. adjunct-initial/head-final languages such as Japanese or Korean. If grammatical structure, rather than more deep-seated cognitive difference, plays a significant role in explaining these behavioral contrasts, then native Japanese and native Chinese participants should diverge from each other at least as much as from speakers of Western languages. In this presentation, we report the results of three experiments, that bear out this prediction: across all three tasks, Japanese participants stand apart from the other two groups.

Method. Adapting the method reported in Masuda & Nisbett (2001), Japanese, Chinese and English (n = 3 * 40) participants were presented with 4 complex pictures involving a number of central and peripheral elements. (All associated language materials were translated and presented to each group in their own language, by native-speaker experimenters). In the first task, participants were asked to describe the pictures: these responses were then scored according to the number of central or peripheral elements mentioned. Following this [Task 2], the pictures were removed from view: participants were then asked to look at thirty 2*3 cm picture fragments, and to decide whether or not these fragments formed part of any of the original scenes (Ground detection). Responses were scored for correctly accepting or rejecting each of the fragments. Finally, participants were shown two scenes from children's story-books depicting a caused event, and asked to report what they saw using the causal conjunction 'because' (or its Japanese or Chinese equivalent). Responses were coded according to whether the cause or caused event was mentioned first.

Results. Tasks 1 and 2 were initially entered into separate ANOVAs; Task 3 was subject to chi-squared analysis. Robust main effects of Language Group (Task 2 $F(2, 120) = 4.464$, $p < 0.014$); Task 2 chi-test $p < 0.0001$), were observed in two tasks, with a reliable interactions of Language Group with Item Type (being observed in Task 1 ($F(2, 239) = 8.815$, $p < .0001$). Post-hoc tests for Tasks 1 and 2—the interpretation of the chi-squared results in Task 3 is self-evident—reveal that in all cases the Chinese participants results contrasted reliably with the Japanese group: the English group was either non-distinct from the Japanese (Task 1) or from the Chinese group (Tasks 2/3). Our results thus speak against—or at least temper—an interpretation in terms of strong cultural relativism, and instead provide support for a form of Linguistic Relativism, in line with the "Thinking for Speaking Hypothesis" advanced by Slobin (1996).

Simultaneous activation of discrete and dense semantic scales when interpreting logical connectives

Magda Dumitru (magda.dumitru@maccs.mq.edu.au)
Macquarie Centre for Cognitive Science, Macquarie University

Disjunction studies found speakers to display a bias towards an inclusive or an exclusive interpretation (Chevallier et al., 2008), often resolved by pragmatic or syntactic factors. According to pragmatic accounts (e.g. Sperber & Wilson, 1995), the exclusivity implicature "*A* or *B* but not both" is triggered when processing resources increase, while syntactic accounts (e.g. Chierchia, 2001; 2008) posit an implicature triggering exhaustivity operator at the syntactic level. While both approaches assume a unique, inclusive meaning for the disjunction operator, the sources of the bias towards an inclusive or an exclusive interpretation remain unexplained. The goal of the present paper is to help uncover these sources.

Several experiments were designed to investigate whether the bias results from speakers' allowing or rejecting logical inference rules, and to determine whether the domain of application for these rules is discrete or dense. Twenty-four research participants were asked to judge the truth of situations where a target followed instructions (by Kermit the frog) to move along *A or B* and *A and B* paths. The results highlighted a link between a bias towards an exclusive interpretation of disjunction and the rejection of inference rules (addition and simplification), and between a bias towards an inclusive interpretation of disjunction and the use of the same inference rules for both disjunction and conjunction. In particular, research participants biased towards an inclusive interpretation were also allowing the inference rules "*A*, therefore *A* or *B*", "*A*, therefore *A* and *B*", "*A* and *B*, therefore *A* and *C* and *B* and *D*" and "*A* or *B*, therefore *A* and *C* or *B* and *D*"; the participants who rejected them, all favoured an exclusive interpretation. Moreover, participants who allowed or rejected inference rules in the discrete domain, as above (containing individual terms like *A* or *B*) were also found to allow or reject the following rules in the dense domain, concerning part-whole relations: "some *A*, therefore all *A*", "some *A* and some *B*, therefore all *A* and all *B*" and "some *A* or some *B*, therefore all *A* or all *B*".

Based on the findings above, the conclusion is drawn that speakers apply inference rules in both the discrete and the dense domains, suggesting that the corresponding semantic scales and their implicatures ("*A* or *B*, but not both" and "some *A*, but not all *A*") are activated together, in keeping with the Universal Density of Measurement theory (Fox & Hackl, 2006). The results also confirm Braine & Rumain (1981)'s prediction that speakers use inference rules rather than truth tables in interpreting disjunction; inclusive and exclusive interpretations could thus be mere epiphenomena.

The Acquisition of German Adnominal Possessive Constructions

Sonja Eisenbeiss (seisen@essex.ac.uk) and Ingrid Sonnenstuhl (ish@phil-fak.uni-duesseldorf.de)
University of Essex, UK, and Duesseldorfer Akademie, Germany

Previous studies on the acquisition of adnominal possessive constructions (APCs) have mainly focused on the availability of possessive markers and constraints on their use (e.g. Armon-Lotem et al. 2005, Eisenbeiss 2000, Marinis 2002, Radford/Galasso 1998). In this presentation, we will investigate incremental extension both in the range of constructions and in the range of possessive relations

We analysed 64 recordings from 7 monolingual German children (1;11-3;6), assigned to stages of noun phrase development by Eisenbeiss (2000): The rate of overt D-elements (determiners, possessive pronouns and quantifiers) is initially low in stage I, rising to 60-64% at the end of this stage. In II, the overt-D rate drops to 4-42%, increasing gradually in III and reaching target-like values in IV. This U-shaped development suggests reanalysis, which is supported by the observation that in I, D-elements occur in formulaic predicate+D-combinations (e.g. das-is-ein-X 'that-is-a-X', ≤74% of overt D) or in a few D+noun-combination types (<10 per file). Earlier analyses of these recordings demonstrated that possessive markers only appear in stages II and III and show initial lexical restrictions to individual nouns (Eisenbeiss 2000). Our new analysis has shown the following:

- Not all children use APCs early on: Hannah does not produce any APCs in I/II, but only precursors, such as single-word utterances that consist of the Possessor's name or a possessive pronoun.
- APCs emerge incrementally: In I, Leonie only uses kinship term or proper name possessives (*papas hose* 'daddy's trousers'), in II/III, she starts using possessive pronouns (*meine mama* 'my mummy'). Annelie, and Mathias produce both possessive pronouns and kinship term or proper name possessives in stage I/II; and so does Andreas, for whom we only have datat from stage III. Prepositional constructions (*die pelle von der wurst* 'the skin of the sausage') only appear in stage IV data from Carsten, Hannah, and Svenja.
- The percentage of pronominal Possessors increases over time: I: 30%, II:33%, III:77%, IV: 86%. Initially, possessive pronouns only appear with a few noun types (*meine Mama* 'my mommy',…).
- Children extend the range of possessive relations they encode in APCs - from ownership and kinship relations with human possessors (from stage I) via body part relations (from stage III) to part-whole relations for inanimate objects (stage IV).
- In stages III and IV, we found 10 utterances where a legal or habitual ownership relation is encoded noun-phrase internally and a temporary ownership or physical control relation is encoded at the sentential level (e.g. Mathias 3;4: *der hat deine uhr* 'this-one has your clock'). This suggests that children start to distinguish between these types of possessive relations.

Taken together, our analysis shows an incremental extension both in the range of constructions and in the range of possessive relations that are encoded by these constructions. Specifically, we found that types of possession that involve physical control and proximity are acquired earlier than more abstract notions of possession. Finally, we observed a preference to position the Possessor before the Possessum even when this results in a highly marked word order pattern (Carsten 3;6: *von wurst die pelle* 'of sausage the skin'). We will interpret our results on the basis of typological studies on possessive constructions (Heine 1997, Seiler 1983); arguing that children encode more prototypical possessive relations earlier than less prototypical ones.

Fabrication of Quantification Domains

Kazuhiko Fukushima (kaz@kansaigaidai.ac.jp)
Dept. of Foreign Languages, Kansai Gaidai University

Shimoyama (2006) construes the particle *-mo* (or *-ka*) in (1a) as a universal (or existential) quantifier in Japanese. Given (1b), it is rather awkward to consider *-mo* a straightforward universal quantifier. This means that the *wh-mo* combination per se cannot be a GENERALIZED QUANTIFIER (see (1c) for *-ka*). Following Matthewson's (2001) and Kratzer's (2005) distinction between QUANTIFIERs and DETERMINERs, this paper proposes that *-mo* (or *-ka*) is the latter, called QUANTIFICATION DOMAIN FABRICATOR (QDF) here.

(1) a. Dono gakusei-mo/-ka manzokusi-ta (which student-also/-or got.satisfied)
'Every/Some student got satisfied'
b. Dono gakusei-mo (koremadeni) zen-in/hotondo manzokusi-ta
which student-also so far all/most got.satisfied
'Among the relevant students, all/most got satisfied (so far)'
c. Dono gakusei-ka(-ga) (koremadeni) san-nin/ta-suu manzokusi-ta
which student-or(-NOM) so far three/many got.satisfied
'Among unidentified students, three/many got satisfied (so far)'

Unlike QUANTIFIERs, QDFs 'shift' or 'fabricate' a Q-domain before a QUANTIFIER exerts its quantificational force. According to Kratzer, they shrink or widen a Q-domain, are choice functions, the iota-operator, etc. So in (1b) the *wh-mo* combination brings about the following: (i) It yields all the individual sums of members of the extention of the common noun, i.e. ***student**′* (Link 1983). (ii) It *selects* the maximal non-atomic individual indicated as SUP[remum](***student**′*). The analysis for (1b) with *zen-in* is: $\forall a((\text{ATOM}(a) \,\&\, a < \text{SUP}(*\mathbf{student}') \rightarrow \mathbf{came}'(a))$ (like-wise for *hotondo*). What about *-ka* in (1c)? *-Ka* on the other hand *excludes* the maximal individual from ***student**′* indicated as NON-SUP(***student**′*). Thus (1c) is analyzed as $\exists a(\text{NON-SUP}(*\mathbf{student}')(a) \,\&\, \mathbf{kita}'(a) \,\&\, \text{AT[om]-COUT}(a) = 3)$. [N.B.: NON-SUP(***student**′*) is a one-place predicate.]

The current empirical and conceptual consequences are the following. Empirically, 'concord' is expected between *mo*-indeterminates and 'strong' quantifiers, and between the *ka*-indeterminates and 'week' quantifiers, e.g. (2a,b) as opposed to (1b,c) above. Since *-ka* in (2a) excludes the maximal individual, there is no basis for interpreting *zen-in*, which requires the 'totality' (SUPREMUM) of its Q-domains. In (2b) the Q-domain is the SUPREMUM due to *-mo*. Two cases here: (i) If AT-COUT(SUP(***student**′*)) is three, then the Q-component of the numeral ('AT-COUT(a) = 3') is an instance of tautology. Or (ii) if AT-COUT(SUP(***student**′*)) is not three, then the Q-component (and the entire sentence) ends up being a contradiction for all cases. Both (i) and (ii) are utterly uniformative—(2b) is avoided.

(2) a. *Dono gakusei-ka(-ga) zen-in manzokusi-ta
b. *Dono gakusei-mo san-nin manzokusi-ta

Conceptually, this paper casts doubts on Matthewson's (2001) universal *syntactic* structure for GQ formation (3a). As obvious from (3b), Japanese does not instantiate the alleged universal (3a), cf. (1b,c). The lack of functional heads (Q/D) may be responsible for that (Fukui & Sakai 2003). Though (3a) is unavailable in Japanese, it certainly offers other semantic devices (including QDFs and floating quantifiers) that opens up possibilities for an equivalent range of quantificational interpretation as (3a) provides. There is, then, no universal one-to-one correspondence between morpho-syntax and semantics of natural language quantification.

(3) a. [$_{\text{QP}}$ QUANTIFIER [$_{\text{DP}}$ DETERMINER [$_{\text{NP}}$ ...]]]
b. *[$_{\text{QP}}$ Zen-in-no/San-nin-no [$_{\text{DP}}$ dono [$_{\text{NP}}$ gakusei-mo/-ka]]] manzokusi-ta

Wh-Elements in Right Periphery and Alternative Semantics

Yasuyuki Fukutomi(e107@ipc.fukushima-u.ac.jp)
Faculty of Economics and Business Administration, Fukushima University

In Japanese Right Dislocation (JRD) construction, interrogative *wh*-phrases cannot appear at the right side of the matrix verb. In contrast, Negative Polarity Items (NPIs) such as *nani-mo* 'anything' can appear in the dislocated position as in (1).

(1) a. *John-wa tabemasita ka, nani-o
John-TOP ate.polite Q what-ACC
intended: 'What did John eat?'
b John-wa tabenakatta yo, nani-mo.
John-TOP did not eat PRT anything
'John didn't eat anything.'

If interrogative *wh*-phrases and NPIs are to be licensed by Q-particle and NEG, respectively, the difference of acceptability requires an explanation. In this talk we will account for this difference in a unified way in terms of the decomposition of *wh*-phrases and their property of creating alternatives.

There are three previous approaches to JRD depending on the structural position of a dislocated element: Clause-External (Haraguchi 1973), Clause-Internal (Inagaki 2001), and Bi-clausal (Leftward movement + deletion) Analysis (Tanaka 2001, Abe 2004). Under any approach, however, we cannot provide a satisfactory explanation in syntactic terms for the contrast between (1a) and (1b), because the same structural representation can be generated for interrogative *wh*-phrases and NPIs. Thus the answer must be found in the semantic or pragmatic aspect of the construction.

We propose that the legitimate interpretation of JRD requires the compatibility of created sets; that is, elements in the right periphery must create an alternative set that is implied by the one created by the preceding clause. Thus the ungrammaticality of (1a) can be explained as the incompatibility of created sets: the interrogative *wh*-phrase generates a set, for example, of foods, while the preceding clause creates alternatives of proposition {John ate, John did not eat}. In the case of grammatical NPI right dislocation, the *mo*-particle is taken to contribute the meaning that all the alternatives created by the *wh*-indeterminate are true, which is not incompatible with the preceding set created by the focus of negation. Our proposal predicts that if the problematic incompatibility is repaired, the sentence becomes grammatical. This prediction is born out by the fact in (2).

(2) John-wa nani-o tabemasita ka, nani-o
John-TOP what-ACC ate.polite Q what-ACC

Notice further that our analysis does not assume the trace (or copy) of the right-dislocated element. This can explain why the right-dislocated element is not reconstructed into the preceding clause, as illustrated by the Condition C violation.

(3) a. Taro-ga miseta-yo, [anata-ga John$_i$-ni kaita tegami]-o kare$_i$-ni
Taro-NOM showed-PRT you-NOM John-DAT wrote letter-ACC him-DAT
b.* Taro-ga miseta-yo, kare$_i$-ni [anata-ga John$_i$-ni kaita tegami]-o
Taro-NOM showed-PRT him-DAT you-NOM John-DAT wrote letter-ACC

To conclude, the analysis proposed here is more successful than its predecessors in respect of empirical coverage, as it offers a natural explanation of the basic facts on the JRD construction.

Language change and language acquisition: The actuation problem revisited

Eric Fuß (fuss@lingua.uni-frankfurt.de), Ian Roberts (igr20@cam.ac.uk) & Carola Trips (ctrips@rumms.uni-mannheim.de)
Universities of Frankfurt, Cambridge & Mannheim

It is a long-standing conjecture that core aspects of language change are deeply rooted in the process of first language (L1) acquisition (Paul 1880, Lightfoot 1979, 1991). Thus, it is often assumed that change is the result of a transmission failure where the learner fails to detect a trigger for a certain property of the target grammar G1 in the linguistic output generated by G1 (Lightfoot 1999, Hale 2007, Roberts 2007). However, that claim seems to be contradicted by evidence from language acquisition studies. Wexler (1998) has argued that children are "little inflection machines", who set parameters correctly very early and acquire basic properties of the target grammar in an almost flawless fashion. These findings give rise to a strong version of the actuation problem, i.e., the question of why a structural feature changes in a particular language at a given time, but not in other languages with the same feature (Weinreich et al. 1968, Niyogi & Berwick 1998, Niyogi 2006). Wexler's claims seem to be corroborated by recent experiments on the acquisition of inflectional morphology which show that there are significant differences between child L1 and child L2 learners (Blom et al. 2006, 2008). This has led some researchers to assume that language change cannot be explained in terms of L1 acquisition (Weerman 2009). Instead, it is claimed that language change can only be triggered by 'transmission failures' which are typical of child L2 and adult L2 acquisition. Under these assumptions, the role of L1 acquisition in language change is limited to the way L1 learners deal with linguistic variation introduced by language contact.

In this paper, we argue that it is not possible to reduce the actuation problem to grammar-external factors. First, we show that purely contact-based scenarios cannot capture generalizations on possible pathways of change (e.g., restrictions on sound change, or the cross-linguistic rarity of VO-to-OV), since arguably there are no linguistic constraints on contact-induced change (Thomason & Kaufman 1988, but see Biberauer, Newton & Sheehan (forthcoming)). Moreover, certain significant changes appear to have taken place where there was no obvious language/dialect contact, e.g. the loss of V-to-I in late 16th/early 17th-century English. We then explore grammar-internal solutions to the actuation problem, revisiting the loss of V2 in Middle English. Here, we demonstrate that a contact-based account (Kroch & Taylor 1997) cannot convincingly account for the facts. Instead, we develop an alternative analysis which focuses on the role of linguistic (micro-)variation in the encoding of information-structural distinctions, assuming that in early Germanic, V2 was triggered by information-structural factors (e.g., to demarcate the topic domain from the comment domain, Hinterhölzl et al. 2005). When the original triggers of V2 became blurred and ceased to be robustly expressed by the data, learners were confronted with a pattern for which they could not detect any clear semantic/pragmatic trigger. This gave rise to the following scenario: On the one hand, the high frequency of subject-initial clauses led learners to abduce a non-V2 grammar (English). On the other hand, learners 'grammaticalized' V2 orders as a result of purely syntactic movement to mimic the syntactic effects of (former) information-structural distinctions (German, Fuß 2008). The well-known differences between earlier English and earlier German in the position of weak pronouns (van Kemenade 1987, Fuß 2008) may have played a role (but not that suggested by Kroch & Taylor), in that they indicate the right edge of the topic field. So the German V>pronoun order indicates that V is in the topic field, while the English pronoun>V order is ambiguous as to whether V is in the topic field, creating the possibility that V is not in C. The reanalysis of V-movement as targeting T rather than C was favoured by the preponderance of subject-initial orders. We will formalize ideas using the system in Chomsky (2008), which treats C as the only true probe in the CP phase.

Embedded Infinitival Interrogatives in the Historical Development of English

(Hans-Martin Gärtner; gaertner@zas.gwz-berlin.de; ZAS Berlin)

Starting point for this presentation is the hypothesis in (1), which I have defended elsewhere.

(1) If a language *L* possesses embedded infinitival (*wh*-)interrogatives, then the pronominal system of *L* does not possess any interrogative/indefinite ambiguity.

Clearly, present-day English (PE) obeys (1). Embedded infinitival interrogatives (EIIs) are well-attested, (2a) (Duffley and Enns 1996:238), and there is a strict division of labor among pronouns concerning interrogative vs. (pure) indefinite function, (2b)/(2c).

(2) a. . . . *whose employer . . . told her what to answer if anyone called . . .*
b. *I wonder <u>who</u>/*<u>someone</u> told her that*
c. *It is clear that *<u>who</u>/<u>someone</u> told her that*

The historical development of English lends striking additional support to (1): Old English (OE) – as well as Gothic and Old High German – shows an inverse pattern. EIIs are disallowed and their content is conveyed by finite clauses carrying subjunctive voice or appropriate modals, (3a) (Los 2005:113). At the same time, *hw*-pronouns have interrogative as well as pure indefinite uses, (3b) (Fischer et al. 2000:142).

(3) a. . . . *þæt hy ne bodian ælcon men <u>hwæt him sy to donne</u> . . .*
b. . . . *nu wille we eow <u>hwæt</u> lytles be him gereccan*

Arguably, a prerequisite to accounting for the complementarity of EIIs and the pronominal interrogative/indefinite ambiguity is a proper understanding of how the transition from one to the other system might happen. This brings us to the facts of Middle English (ME) where EIIs have been observed to arise, (4a) (Fischer et al. 2000:95), (4b) (Canterbury Tales).

(4) a. *ant nuste <u>hwet seggen</u>*
b. . . . *that i noot <u>what to done</u>*

Also, *hw/wh*-pronouns lost pure indefinite usages (cf. Mustanoja 1960; Rissanen 1987).

The remainder of this presentation will therefore be concerned with three issues. (i) I will present a corpus study (PPCME) on the distribution of EIIs in order to settle the following question: Do EIIs arise in the complement of [+INT/+INF]-predicates, i.e. those originally selecting either interrogatives or infinitives, or do EIIs enter in the complement of [+INT]-predicates generally? (ii) I will point out evidence that dissociates the development of EIIs from the development of infinitival relatives (IRs), the latter already in place in OE, as (5) (Fischer et al. 2000:60) indicates.

(5) *Gif ðær ðonne sie gierd <u>mid to ðreageanne</u>, sie ðær eac stæf <u>mid to wreðianne</u>*

This fact contradicts the EII/IR-"co-evolution" hypothesis derivable from the theory of Sabel (1996). It can be motivated if one notes that the original purposive interpretation of *to*-infinitives invites their use in IRs more (directly) than in EIIs. (iii) I will speculate on the influence of Old French ("ancien français") (AF) on ME in the domain of EIIs, given the latter were well-established in AF as shown in (6) (Ménard 1988:161).

(6) *Ne sai mais que penser*

If correct, this speculation would counter McWhorter's (2002:251) claim that "the Normans could not have had any significant influence on English beyond the lexical." Crucially, the "influential" (Germanic) Scandinavian languages disallow and always have disallowed EIIs.

Duffley, P. & P. Enns. 1996. "Wh-words and the Infinitive in English." *Lingua* 98:221-242. • Fischer, O., A. van Kemenade, W. Koopman & W. van der Wurff. 2000. *The Syntax of Early English*. Cambridge: CUP. • Los, B. 2005. *The Rise of the To-Infinitive.* Oxford: OUP. • McWhorter, J. 2002. "What Happened to English?" *Diachronica* 19:217-272. • Ménard, Ph. 1988. *Syntaxe de L'Ancien Français*. Bordeaux: Éditions Bière. • Mustanoja, T. 1960. *A Middle English Syntax*. Helsinki: Societé Néophilologique. • Rissanen, M. 1987. "Old English Indefinite Pronouns Meaning 'Some' and 'Any', with Special Reference to *HW*-Forms." Pp. 411-428 in *Neophilologica Fennica*, edited by L. Kahlas-Tarkka. Helsinki: Société Néophilologique. • Sabel, J. 1996. *Restrukturierung und Lokalität.* Berlin: Akademie-Verlag.

Word order patterns in the acquisition of Greek

Michalis Georgiafentis
(michgeo@enl.uoa.gr)
University of Athens

Spyridoula Varlokosta
(varlokosta@rhodes.aegean.gr)
University of the Aegean

Languages characterised by relatively free word order are of particular interest to language acquisition research mainly for the following reason: The young acquirer of such a language has to find out not only the underlying structure of his/her mother tongue and its possible permutations but also the syntactic, prosodic, pragmatic and discourse constraints on the use of these various orders.

Recent experimental research on the acquisition of relatively free word order languages such as Hebrew, European Portuguese, Palestinian Arabic and Spanish showed that, although both Subject-Verb (SV) and Verb-Subject (VS) orders are possible in the adult language, in the early stages of sentence construction children do not use the whole array of word orders available in the language they acquire. Interestingly, their word order preference differs in the different languages: Thus, in Hebrew and European Portuguese children use both SV and VS orders with unaccusative verbs, but they use only SV with unergative and transitive verbs. On the other hand, in Spanish and Palestinian Arabic, they prefer to use VS orders with all types of verbs, i.e. unaccusative, unergative, and transitive ones (Friedmann, 2007; Costa & Friedmann, to appear).

Furthermore, the analysis of longitudinal data from two other languages with relative freedom in the order of their sentential constituents, namely Russian and Greek, showed that children do not use only the unmarked Verb-Object (VO) order very early but also its marked counterpart, i.e. the Object-Verb (OV) order. This finding provides evidence that young children have certain knowledge of information structure at this early age (1;6 – 1;9 years) (see Dyakonova, 2004 for Russian, and Tsimpli, 2005 for Greek).

In the present experimental study we investigate the acquisition of a range of word order patterns in Greek. Twenty (20) monolingual Greek-speaking children, aged 2;5 – 3;6 (mean age 3;0), were examined using two repetition tasks (cf. Friedmann, 2007; Costa & Friedmann, to appear). The first task included 36 test sentences: 12 sentences with unaccusative verbs, half with SV and half with VS order; 12 sentences with unergative verbs, half with SV and half with VS order; 12 sentences with transitive verbs, half with VO and half with OV order. The second task included 36 test sentences with transitive verbs, six for each possible word order in Greek: SVO, VSO, VOS, OVS, OSV, SOV (the last three with focus on O).

Our results indicate that Greek-speaking children around the age of 3 performed at ceiling (95% correct responses) in the first experiment. Children performed equally well with SV and VS orders in the case of unaccusative and unergative verbs as well as with VO and OV orders in the case of transitive verbs. However, difficulties emerged in the second task, which contained transitive verbs with both an internal and external argument. Children's performance in this task was quite poor with only 67% correct responses. An analysis of errors indicated that children did not have difficulties with sentences that had SVO and VSO orders, which according to a number of researchers are the most frequent word order patterns in the speech of Greek native speakers (see Philippaki-Warburton, 1985; Lascaratou, 1989; Keller & Alexopoulou, 2001, among others). Some errors occurred with OVS order, while the majority of errors occurred with OSV, SOV and VOS orders. In the case of sentences with OSV and SOV order, children produced SVO and OVS orders, while in the case of sentences with VOS order, children produced VSO and SVO orders. Our results indicate that in accordance with the Subset Principle (Crain & Lillo-Martin, 1999), children start with the most narrow class of orders (which in the case of Greek is SVO and VSO) and, based on positive evidence, they change their initial hypothesis and generate multiple word orders.

Copying and iteration at the morphology-syntax interface

Aslı Göksel (gokselas@boun.edu.tr), Boğaziçi University
Barış Kabak (baris.kabak@uni-konstanz.de), University of Konstanz
Anthi Revithiadou (revithiadou@rhodes.aegean.gr), University of the Aegean

We investigate the affinity between cases of 'morphological reduplication' (i.e., processes which create new words) and 'syntactic copying' (i.e., processes where a syntactic constituent is iterated) in Greek and Turkish, and discuss arguments for and against the uniformity of the underlying mechanisms (cf. Inkelas & Zoll 2005). The range of data that we look at challenges certain aspects of the concept of 'word' formation as a lexical process and raises questions regarding the nature of the mechanism which generates such iterative constructions. The locus of the iterated material is variable but within a finite set of possibilities: it may be strictly adjacent to the original item, which yields what looks like a 'word'-formation process (1-2), or it may be realized at syntactic positions which are determined by language specific structural constraints (3-5).

	(a) Greek:	(b) Turkish:
(1)	**siɣá siɣá**	**yavaş yavaş**
	'slowly' (*siɣá* 'slowly')	'slowly' (*yavaş* 'slow(ly)')
(2)	**îpa** ksî**pa** 'I said, I unsaid'	**eve git** m**eve git** 'go home, etc.'
(3)	**Ti María** aɣapáo, **ti María**	**Maria-yı** sev-iyor-um, **Maria-yı**.
	the Mary-ACC love-1SG the Mary-ACC	Maria-ACC love-IMPF-1SG Mary-ACC
	'It is MARY that I love.'	'It is MARY that I love.'
(4)		**Erkek** yurd-u orası, **erkek.**
		male dorm-CM that.place male
		'That place is a MEN'S dorm.'

Although the iteration process through reduplication in (1a-b) is readily amenable to an analysis at the 'word' level, those in (2a-b) are problematic because they crucially target phrases. Syntactic elements are also the targets of iteration (3) (cf. Conathan & Good 2000) in both languages, while Turkish, but not Greek, additionally, allows the iteration of sub-constituents (e.g., modifiers of compounds) (4). Crucially, however, this process places the reduplicated element in a syntactic position, namely at the right periphery of a sentence, a phenomenon largely understudied in both languages.

A closer examination of all types of iteration in (1-4) shows the following: (i) iteration is non-recursive, (ii) only one constituent can be iterated, and (iii) the iterated constituent is stressed (and/or focused). We hypothesize that all instances of reduplication above are a manifestation of *copying*, a general mechanism which cuts across all components of grammar. In this case, morphology and syntax provide the positions for the copied material, namely the right-hand node in compounding, and the right periphery in the post CP position, respectively. We argue that the positions chosen by syntax are principled and depend on the overall syntactic and discourse properties of post-CP positions in these languages. More specifically, Turkish locates the copied material in the post-verbal position, whereas Greek locates the same material in the position reserved for tag questions and discourse particles. These positions arguably display special properties and bear communicative functions comparable to iteration. We also suggest that the representation of iteration can be accounted for by extending general mechanisms of semantic identity (cf. Inkelas & Zoll 2005) to syntactic copying, providing a unified analysis for all types of iteration. Finally, we will address various implications of our data for the divide between word-formation and sentence-formation processes (cf. DiSciullo & Williams 1987, Culicover & Jackendoff 2005).

"Tagging" Hungarian

Beáta Gyuris (gyuris@nytud.hu)
Research Institute for Linguistics, Hungarian Academy of Sciences

The aim of the paper is to characterize the interpretation of the Hungarian particle *ugye*, which can appear in utterances having the force of a question or that of an assertion. (1b), pronounced with falling tone characteristic of the pronunciation of declarative sentences, provides a felicitous answer to a question like (1a), whereas the string-identical (2a), pronounced with a rise-fall tone on the particle itself, can be used to ask a question:

(1) a. *Why is Thomas so upset?*
b. *Mari Jánost látogatta ugye meg.*
Mary John.ACC visited PRT PFX
'*As you know*, Mary has visited John.'

(2) a. *Mari Jánost látogatta ugye meg?*
Mary John.ACC visited PRT PFX
'Mary has visited John, *hasn't she*?'
b. *Yes, she has.*

For lack of substantial evidence for assuming different syntactic structures for (1b) and (2a), it appears that the differences in their uses are to be directly connected to the differences in their prosodic realizations. However, this approach faces two challenges. First, the differences between the prosody of (1b) vs. (2a) are not the same as those between the prosody of 'ordinary' declaratives and their string-identical polar interrogative counterparts in Hungarian, the latter of which bear a characteristic rise-fall on their penultimate syllable. Second, in the Hungarian literature, sentence-internal *ugye* is considered an interrogative particle, that is a means of creating the (form) type of *interrogative sentences*.

The paper shows that the contribution of *ugye* to the interpretation of (1b) is analogous to that of discourse particles with a context marking function (marking that the propositional content of the sentence follows due to default reasoning from the common ground, cf. Zeevat 2003), and that in (2a), the particle is not responsible for creating the form type *interrogative,* but has a function analogous to tags in various languages, most types of which have been attributed a biased question interpretation, just like *ugye*-'interrogatives' have. It is shown that the analysis of English tag questions along the lines proposed by Sadock (1974), Ladd (1981), Quirk et al. (1985), Reese & Asher (2006), according to which the biased question interpretation of the latter is due to the fact that they express two illocutionary acts (an assertion and a question) at the same time, is highly applicable to the analysis of (2a), supported by the results of applying Sadock's (1974) diagnostics for the presence of different kinds of illocutionary force. On the assumption that the particle is to be considered an internalized tag in (2a), its idiosyncratic melody is also straightforwardly accounted for.

The talk discusses two possible ways of unifying the above two interpretations of the particle. The first one follows the path of the historical development and considers the interpretation of *ugye* in tag questions as basic. It argues that the particle keeps its status as an internalized tag in sentences like (1b), where the lack of the interrogative contour has its standard iconic function, indicating confidence and certainty, in other words, the rhetorical question status of the question contributed by the tag. On the second strategy, the context-marking function of the particle would be considered primary.

References:

Ladd, D. R. 1981. "A First Look at the semantics and Pragmatics of Negative Questions and Tag Questions", *Proceedings of CLS 17*, 164-171. • Quirk, R. et al. 1985. *A Comprehensive Grammar of the English Language*, Longman Publishers. • Reese, B. & N. Asher 2006. "Prosody and the Interpretation of Tag Questions", in E. Puig-Waldmüller (ed.) *Proceedings of Sinn und Bedeutung 11*, Barcelona, UPF, 448-462. • Sadock, J. M. 1974. *Toward a Linguistic Theory of Speech Acts*, Academic Press. • Zeevat, H. 2003. Particles: Presupposition Triggers, Context Markers or Speech Act Markers", in R. Blutner & H. Zeevat (eds.) *Optimality theory and pragmatics,* Palgrave Macmillan.

Three positions for prenominal possessors

Liliane Haegeman (University of Ghent) – liliane.haegeman@UGent.be

1. The prenominal possessive construction in West Flemish (WF). The talk focuses on two prenominal possessors illustrated in WF (1). In (1a) the possessor, *Valère*, is doubled by a possessive pronoun (*zenen)*, which agrees with the possessor. In (1b) the possessive relation is expressed by an invariable morpheme *sen.*

(1) a Valère zenen boek (1) b Valère sen boek
Valère his-MASC-SC book Valère-*sen* book

It might seem as if (i) *sen* in (1b) is a reduced version of the possessive pronoun *zenen* in (1a), and (ii) that the syntax of (1a) and (1b) differs only in the realization of the element linking the possessor and the *possessum*. This analysis will be shown to be empirically inadequate.

(i) That the *sen* genitive is not a reduced form of the possessive pronoun is shown by (2) in which the feminine possessive pronoun *euren* also alternates with *sen:*

(2) a Marie euren boek (2) b Marie sen boek
Marie her-MASC-SC book Marie-*sen* book

(ii) The prenominal possessor in (1a) also occupies a different position from that in (1b). (3)-(4) show that in the doubling construction, the possessor DP may move leftward across a quantifier, allowing both (3a) and (3b). The *sen* possessor must be adjacent to *sen* (4). In cases of *possessum* ellipsis in the doubling construction a definite determiner is inserted which must intervene between the possessor and the possessive pronoun (5).

(3) a al Marie eur boeken (3) b Marie al eur boeken
All Marie her books Marie all her books

(4) a al Marie sen boeken (4) b *Marie al sen boeken
All Marie *sen* books Marie all *sen* books

(5) a Marie d'eure Ø (5) b *de Marie eure Ø
Marie the her Ø de Marie her Ø

I propose that the possessive marker *sen* spells out an inflectional head in the IP domain of the DP, and that the *sen* possessor occupies the specifier of that head, a position which could be viewed as the canonical subject position of the DP. Like the clausal subject, the subject of DP resists extraction. In the doubling construction, the possessor occupies a position in the left periphery of the DP; the possessive pronoun spells out the inflectional head of the DP-internal IP domain and its specifier is a null pronominal, licensed by the φ-features of the possessive pronoun. This means that there are (at least) 3 positions for a pronominal possessor DP:

(6) a $[_{QP}$ $[_{DP}$ $[_{IP}$ possessor$_1$ $[_{I}$ *sen*$]$ $[_{NP}$ possessum$]]]]$
b $[_{QP}$ possessor$_3$ $[_{Q}]$ $[_{DP}$ possessor$_2$ $[_{D}]$ $[_{IP}$ pro $[_{I}$ *eur*$]$ $[_{NP}$ possessum$]]]]$

2. Particles and possessors. The distribution of the particle *zè* and the deictic adverbs *hier* ('here'), *doa* ('there'), *gunter* ('yonder') in possessive DPs provides support for the differentiation of possessor positions in (6). The focusing particle *zè* is only compatible with the doubling possessor (1a). When associated with *zè* the doubling possessor must occupy the leftmost position ('3') in the DP (7a vs. 7b). Deictic adverbs are compatible with both the higher ('3') (7a) and the lower ('2') possessor in the doubling pattern (7b), while remaining incompatible with the *sen* possessor (7c) in the lowest position ('1'):

(7) a die student zè/hier al eur werk moen-k verbeteren
That student *zè* /hier all her work must-I correct
b al die student hier/*zè eur werk… c *die studente zè/hier sen werk…

The presence of the particle *zè* triggers leftward movement of the containing DP to the left periphery of the clause. The deictic adverbs do not trigger leftward movement of the possessive DP. I propose that while the deictic adverbs are licensed internally to DP, the focusing particle *zè* is licensed outside DP; the DP-internal leftward movement to the phase edge of the DP renders *zè* accessible for an outside probe in the left periphery of the clause.

Negative Concord is simply Agree

Liliane Haegeman (Liliane.haegeman@UGent.be) & *Terje Lohndal* (terje@umd.edu)
University of Ghent & University of Maryland

Recent Minimalist approaches to Negative Concord (NC) (Roberts 2007, Zeijlstra 2004, Biberauer & Zeijlstra 2008) analyse this phenomenon as Multiple Agree (MA) (Hiraiwa 2001). We show that a MA account of NC in West Flemish (WF) is not tenable for a number of empirical reasons and we provide an alternative account in terms of binary Agree.

1. Negative Concord as Multiple Agree. Zeijlstra (2004, 2008) analyses NC in terms of Multiple Agree (MA) (thus the NC phenomenon would provide support for the need for MA). Negative expressions such as *nooit* 'never' and *niets* 'nothing' in (1a) are analysed as semantically non-negative indefinites associated with an [*u*NEG] feature (2004: 245). The marker of sentential negation *nie* - as well as the morpheme *en* - is also associated with an [*u*NEG] feature. Sentential negation is introduced by a covert negative operator OP¬ in SpecNegP, associated with an [*i*NEG] feature. NC is then the result of MA, an across the board application of Agree between the Probe, Op¬ [iNEG] in SpecNegP, which takes the (multiple) [*u*NEG] negative constituents on the *v*P edge [*u*NEG] constituents as its Goals. An application onto WF using Zeijlstra's system is shown schematically in (1b).

(1) a da Valère *nooit niets* *nie* en zegt.
Da Valère never nothing not *en* says 'that Valère never says anything.'

b. [$_{NegP}$ OP ¬ [*i*NEG]
[$_{vP}$*nooit* [~~*u*NEG~~] *niets* [~~*u*NEG~~] *nie* [~~*u*NEG~~] [Valere [$_{v'}$ *en*-zegt [~~*u*NEG~~]]]]]

2. Empirical problems for the MA analysis of NC. However, there are several cases where NC as ATB-agreement is not available. As observed in Haegeman & Zanuttini (1996), the nature of the specific negative element plays a role in generating NC. This is shown in (2). In (2a) *niemand* enters into an NC with *nie dikkerst* 'not often' and with *nie* 'not'. However, though *niemand* can enter into NC with the negative marker *nie* and can also enter into a NC relation with *nie dikkerst* in (2a), the same three entities cannot enter into an NC relation in (2b). (2b) becomes grammatical if the 'simple' negative marker *nie* is either removed or if it is replaced by the more complex *nie meer* 'no more' (2c).

(2) a. dank ik doa nie dikkerst niemand nie gezien een
that I there not often no one not seen have
'that I didn't often see anyone there'

b. *dan-k doa niemand nie dikkerst nie gezien een
that I there no one not often not seen have

c. dan-k doa niemand nie dikkerst (nie mee) gezien een

NC is sensitive to the type of negative constituent involved and to their relative positions. As all relevant constituents (*niemand, niet dikkerst, niet,* etc.) apparently can undergo NC in some types of combinations, it is not clear how the application of MA as formulated as an ATB procedure can "distinguish" acceptable and unacceptable combinations.

3. NC as binary Agree. We will present an alternative approach to Zeijlstra's account in which NC is derived by binary Agree coupled with a detailed proposal for the featural composition of *n*-words, a crucial component of which is that *niet* is associated with an [*u*NEG] feature and with an [*uQ*] feature. Failure of Agree as in (2b) will be shown to be due to the [*uQ*] feature on *niet* remaining unvalued as a result of intervention. Our account covers additional data not covered by Zeijlstra's analysis, including the DP-internal application of NC (3a) and the intervention of quantificational adverbs in NC dependencies (3b).

(3) a Valère leest [nie vele geen boeken]
Valère reads [not many no books] 'Valère does not read many books.'

b dat Valère tegen niemand dikkerst nie klaapt
that Valère against no one often not talks (DN reading/*NC reading)

Equation is predication: evidence from Hungarian

Jutta M. Hartmann (jutta.hartmann@uni-tuebingen.de) / *Veronika Hegedűs* (hegedus@nytud.hu)
University of Tübingen / Research Institute for Linguistics, HAS

The present paper contributes to the discussion on copula clauses of the type *DP be DP* by arguing on the basis of Hungarian data that (i) all types of copula clauses have a syntactic predicate that is mapped on a semantic predication structure; (ii) identity statements also exhibit a syntactic and semantic predication structure.

Data. (1a) is a predicational clause in which 'Hamlet' has the property of being 'my best friend'. (1b) has been analyzed either as having the same predication structure but a different derivation (Moro, 1997; Den Dikken 2006 a. o.), or as involving two referential DPs and being the same as identity statements like *The morning star is the evening star* (Heycock & Kroch, 1997).

(1) a. Hamlet is my best friend. b. My best friend is Hamlet.

Note, however, that the sentences in (1) are both ambiguous: in principle either DP can be the predicate of the clause. However, the different word order corresponds to different information structure. This is more obvious in the Hungarian counterparts of the sentences. There are four word-order variants, cf. (3). One of the DPs must be interpreted as Focus in all sentences (cf. Kádár, 2007). Furthermore, (3b) and (3c) are ambiguous in writing because the initial DP can be either a Contrastive Topic (with rise-fall intonation) or a (discourse) Topic.

(3) a. HAMLET lesz a legjobb barátom.
Hamlet will.be the best friend.poss
'Hamlet will be(come) my best friend.'

b. Hamlet A LEGJOBB BARÁTOM lesz.
Hamlet the best friend.poss will.be
'Hamlet will be my best friend. /
It's my best friend that will be Hamlet.'

c. A legjobb barátom HAMLET lesz.
the best friend.poss Hamlet will.be
'My best friend will be Hamlet.'

d. A LEGJOBB BARÁTOM lesz Hamlet.
the best friend.poss will.be Hamlet
'My best friend will be Hamlet. /
It's my best friend that will be Hamlet'

If a DP is a discourse topic, it has to be referential (cf. É. Kiss, 2002), and therefore, this DP can be only the subject of the predication. Hence, sentences with a discourse topic are not ambiguous. However, either referential or predicative DPs can appear as Contrastive Topics, so either the subject or the predicate of the SC can fill that position. Accordingly, sentences with Contrastive Topics are ambiguous.

Analysis. We follow Bowers (1993) and Moro (1997) and propose that all copula clauses have the same predication structure, and one of the DPs is always the (syntactic) predicate. We show that embedding under *consider* is a good test to identify which one of the DPs is the predicate of the copula clause because the predicate is always in dative case in Hungarian. The dative-marked syntactic predicate can never be a discourse topic, but it can be a contrastive topic in the clause.

Applying this test to identity statements shows that one of the DPs is marked as a predicate. This strongly suggests that identity sentences have the same structure as specificational sentences. The topicalization test also works in these cases: predicates cannot be discourse topics only contrastive topics. We will show that this syntactic predication structure forces a semantic predicative interpretation.

Consequences and Extensions. Although identity statements are not different from other predicative structures, it is also clear that the information structure of these sentences is different from regular sentences. All *DP be DP* sentences contain a focus. We will argue that the fact that these copula clauses do not have a neutral interpretation is due to the fact that we are dealing with two DPs, which are by default not predicates. The specific information structure seems to be a product of making one of the DPs predicative.

On the acquisition (or not) of verb movement to Inflection

Caroline Heycock[1], Antonella Sorace[1] & Zakaris Svabo Hansen[1,2]
heycock@ling.ed.ac.uk, antonell@ling.ed.ac.uk, zakarish@setur.fo
[1]University of Edinburgh, [2]University of the Faroe Islands

One striking and much-discussed feature of the syntax of modern English is the differing positions of "auxiliaries" and "main verbs:" as is well-known, the former occur in a high position to the left of negation, while the latter cannot occur outside the VP:

1. a. They {have not /*do not have} gone.
   b. They {*love not /do not love} musicals.

This distinction is unusual. Although the mainland Scandinavian languages, like English, have lost the kind of verb movement that results in the order in (1a) ("V-to-I"), auxiliaries were not exempt. We exemplify with Swedish (we give subordinate clause word order to avoid the additional effect of V2):

2. a. … om han {inte åt / *åt inte} choklad
      if he {not ate / *ate not} chocolate
      … *if he didn't eat chocolate*

   b. … om han {inte hade / *hade inte} ätit choklad
      if he {not had / * had not eaten chocolate
      … *if he hadn't eaten chocolate*

In a much-cited paper, however, Håkansson and Dooley-Collberg (1994) provided data from Swedish-speaking children aged 2:00–3:6 years which, they argued, showed evidence for an early tendency in children learning this language to allow auxiliaries—but not main verbs—to precede negation, the pattern that emerged historically in English.

Subsequent researchers, most recently Christian Waldmann (2008), have been unable to replicate this finding. In this talk we will present new data from children acquiring Faroese, another Scandinavian language, but one which has undergone much more recently than Swedish the change from V-to-I to V-in-situ (or may still be in the late stages of this change, see e.g. Jonas 1996, Thráinsson 2003). We will show that both a production and a judgment task provide evidence that at least until the age of 6 Faroese children produce embedded questions (a strictly non-V2 environment for adults) with V-Neg order, alongside those with the V-in-situ order:

3. a. Minnist tú, hví at hesturin **ikki** slapp at vera við?
      remember you why that horse-DEF not be-permitted to be with
      Do you remember why the horse didn't get to come too? C, 5;11

   b. Minnist tú, hví at Annika kann **ikki** lyfta mannin?
      remember you, why that Annika can not lift man-DEF
      Do you remember why Annika can't lift the man? C, 5;11

Children up to this age also accept both orders in a judgment task. By the age of 10, however children are virtually categorical in producing the V-in-situ order and in rejecting the V-to-I order in the judgment task, the pattern we also found in adults.

We will also show that in the production task for children up to this age there is an effect of the distinction between auxiliary and non-auxiliary verbs (this was not tested in the judgment task), in the direction reported by Håkansson and Dooley-Collberg (1994): auxiliaries are more likely than main verbs to occur before negation, as in (3b) above.

In the talk we will highlight the interest of these results for our understanding of verb movement, and also for the apparent paradox that they present given the diachronic change in Faroese *away* from the order overgeneralised by the children.

Prolegomena to a defaults-based theory of word-formation: derivation in Network Morphology

Andrew Hippisley, University of Kentucky, andtrew.hippisley@uky.edu

The enrichment of the lexicon in grammatical theory follows from the fact that many linguistic generalisations are viewed as having a lexical character: rules operate over properties of lexical entries, as well as being restricted in application by classes of lexical entries (e.g. Briscoe 1993, Scalise & Guevara 2005). To formally express an enriched and structured lexicon, lexical knowledge representation formalisms are used to encode structure sharing as inheritance, e.g. through subsumption and typing in the feature structures of HPSG (Sag, Wasow & Bender 2003). And to capture the semi-regular character of lexical information, inheritance is specified as default (e.g. through default unification (Bouma 1990; Lascarides & Copestake 1999). Network Morphology is a defaults-based theory of the lexicon (Hippisley and Corbett 2008 for bibliography) whose theories are formalised in DATR (Evans and Gazdar 1996) and are computable. Illustrating with Russian's rich system of nominal word formation we show the elegance with which a defaults-based approach handles what are considered the key issues in derivational morphology.

1 Base and derivative relationship

The Russian verb for 'read' is *č´itat'* and is derivationally related to the Russian noun 'reader' *č´itatel´*. The derived lexeme has a number of properties in common with its base: there is formal similarity, and semantic similarity. We capture similarities between base and derivative as inheritance by the derivative from a hierarchically dominant base lexeme. Equally there are important differences between the items: the derivative is a noun and its base is a verb. Moreover though there is formal *similarity* between the two items there is not formal *identity*: the derivative is a modified version of its base, where /tel´/ has been attached to the stem. The nature of the derivational relationship between two items will be revealed by inheritance for identity, overriding for differences, and inheritance + further specification for modifications of the base lexeme.

2 Word formation rules (WFRs)

The relationship between a derivative and its base may be repeated across a number of base-derivative pairs. There is a large number of *–tel´* suffixed nouns denoting 'person' derived from verbs. We capture lexical redundancy of this kind by expressing a WFR as a networked set of abstraction nodes that are the source of inheritance of all new information added in a derivation, and replicated in a class of derivations. The inheritance from WFR abstraction nodes is restricted to just those lexemes that are legitimate input to a WFR, expressing how Paninian precedence-based blocking regulates a WFR's set of inputs.

3. Productivity

We show how default inheritance for lexical structure sharing captures different *degrees* of productivity (Bauer 2005). The adjectival suffix *–n* (as in *šumnij* 'noisy') has high *token frequency* productivity: there are 10,815 *–nij* adjectives in Zaliznjak (1977); there are much fewer *-sk(ij)* adjectives (3,280) yet systematically they are attached to {+person / +geopolitical} nouns, and therefore have high *systematic* productivity. Finally there are few *–ak* personal nouns in Zaliznjak, about 60, yet they have a compositional semantics, i.e they are *transparently* productive: *ribak* 'fisherman'.

We exploit defaults to the full in a formal approach to Russian word-formation thereby capturing its mixture of regular, semi-regular and irregular properties. The result is a proposed program for describing derivational morphology using the notions of default inheritance to capture the relationship between a base and its derivative, nodes distributed in a network to capture WFRs as redundancy rules, and defaults to express the various senses and degrees of productivity. Moreover, the proposed approach is computationally testable.

Realization without exponence: the Shughni past tense

Andrew Hippisley & Gregory Stump, University of Kentucky
{andrew.hippisley,gstump}@uky.edu

Canonically, a word's morphosyntactic properties are realized by concatenative or nonconcatenative modifications of its stem: these constitute the EXPONENCE of the word's morphosyntactic property set. For instance, *-ais* is the exponent of {instrumental plural} in Sanskrit *aśvāis* 'with horses'. A word's exponence may also determine the exponence of other members of the same paradigm: *-ais* in *aśvāis* entails nominative singular *aśvas*, accusative singular *aśvam*, etc. However, the vocative singular form *aśva* is distinguished by the absence of any exponent. This amounts to realization by the SIGNIFICATIVE ABSENCE of an exponent (Mel'chuk 2006). Moreover, just as a word's exponence may determine the exponence of other members of its paradigm, so can the significative absence of an exponent: vocative singular *aśva* entails nominative singular *aśvas*. These facts recall Jakobson's (1984) analysis of Russian declensional morphology, where overt exponence in the nominative singular coincides with absence of exponence in the genitive plural, and *vice versa*.

We investigate a much more extreme case of realization without exponence, involving not merely the absence of overt exponents, but that of entire paradigmatic cells. In the eastern Iranian language Shughni (Dodykhudoeva 1988, Payne 1989), past-tense forms are periphrastic, consisting of a clitic auxiliary expressing person/number plus a main verb stem:

1. Past-tense Class I: *yā-yi* *kud* *wīn-t.*
   she-Aux.3SG dog see-PAST
   'She saw a dog.'

The past-tense paradigm of a verb belonging to Class I (whose members are transitive and/or active) is distinguished by the presence of an auxiliary in the 3sg and by the absence of a gender/number distinction in the main verb stem. But the past-tense paradigm of a verb belonging to Class II (whose members are intransitive and middle) lacks an auxiliary in the 3sg and has a gender/number distinction (through root vowel alternation) in the main verb stem;

2. Past-tense Class II: *yā* *wirov-d.*
   (feminine subject) she stand.FEM-PAST
   'She stood'.

3. *yu* *wirūv-d.*
   he stand.MASC-PAST
   'He stood'.

These implicational properties embody a *cell-based* generalization parallel to Jakobson's *exponence-based* generalization about Russian declension. Whereas Jakobson's generalization relates to the presence/absence of an exponent, this latter generalization relates to the presence/absence of paradigm structure: the periphrastic realization of a Class II verb's past-tense paradigm (unlike that of a Class I verb) never involves the 3sg cell of the auxiliary verb's paradigm; and in the realization of a Class I verb's past-tense paradigm (unlike that of a Class II verb), the main verb's paradigm lacks gender/number cells.

Thus significative absence is only one way in which a word's content can be realized without exponence: realization may also be affected by absence of a paradigmatic cell. Both types of exponence-less realization are possible through bi-conditional implications either amongst exponents of cells, or amongst the cells themselves. This evidence provides further motivation for an inferential-realizational theory of morphology.

On adjectival complements of perception verbs in English and German

Kerstin Hoge, University of Oxford
kerstin.hoge@mod-langs.ox.ac.uk

In both English and German, it appears that a directly perceived event or state can be realised linguistically as an 'unsupported clause' (Higginbotham 1983), e.g. the perception verb 'see' can occur with a small-clause verbal or adjectival complement, cf. (1)–(2).

(1) a. Laura saw the boy drink a bottle of rum.
b. Laura sah den Jungen eine Flasche Rum trinken.
Laura saw the boy a bottle rum drink

(2) a. Laura saw the boy drunk.
b. Laura sah den Jungen betrunken.
Laura saw the boy drunk

In neo-Davidsonian analyses, the ability to occur as the complement of a perception verb indicates that predicates – irrespective of whether denoting events or states and whether verbal or adjectival in category – contain an argument position ranging over events. However, the view that both events (in the narrow sense) and statives have an event position has been criticised in light of data that suggest a number of syntactic and semantic contrasts between the two types of predicates (Katz 2000, Basilico 2003, Maienborn 2003).

The present paper contributes to this debate by examining the differences displayed by adjectival complements of visual perception verbs in English and German. In German, adjectival complements of perception verbs are far more restricted in their distribution, i.e. not every visual perception verb complement that is grammatical in English translates into German, cf. (3).

(3) a. Laura saw the boy tired.
b. ??Laura sah den Jungen müde.
Laura saw the boy tired

In this paper, it is argued that the ungrammaticality of German adjectival small-clauses like (3b) derives from the fact that 'true' perception verbs, i.e. perception verbs that do not simultaneously allow a non-vision reading, universally select an AspP-complement (Felser 1999). Assuming that (i) the subject of predicates is first merged in the lexical projection of the predicate, (ii) adjectival phrases lack a specifier position (Baker 2003), and (iii) the event argument is introduced in the specifier of AspP, there will be no position in which to merge the subject in adjectival small clauses. Constructions that seemingly illustrate a small-clause adjectival complement of a visual perception verb are either (i) adjectival phrases in depictive constructions (which it will be argued is the case for the examples in (2)), or (ii) complements to matrix verbs that allow a non-vision reading and are in fact indirect perception reports (which it will be argued is the case for (3a), where it is at any rate doubtful that tiredness (rather than yawning, eye-rubbing, etc.) is amenable to direct sensory perception). The proposed analysis receives empirical support from the ungrammaticality of adjectival clauses as complements of 'true' perception verbs (cf. (4a)), and the improved status of adjectival small-clause complements in an irrealis context (cf. (4b)), where no direct physical perception of an event is expressed (cf. Safir 1993).

(4) a. *Laura watched [the boy tired].
b. Laura hat den Jungen nie müde gesehen.
Laura has the boy never tired seen

Richness of agreement really is a parameter with a wide range of effects

Anders Holmberg (anders.holmberg@newcastle.ac.uk)
Newcastle University

In a series of works between 1987 and 1995 C. Platzack and A. Holmberg developed a theory according to which there are about ten ways that the Insular Scandinavian (ISc) languages differ from the Mainland Scandinavian (MSc) languages which are due to one parametric difference between the two groups of languages, to do with the features of I/T. The intuition that P&H tried to formalise was that richness of subject-verb agreement is the parameter from which the other differences would follow: ISc has rich agreement, MSc doesn't. But with the theoretical tools available at the time they couldn't express this intuition formally. Instead they ended up with a more abstract parameter: AGR (= the phi-features of I) does or does not have inherent nominative case (where the rich agreement would be an accompaniment of the inherent case, for not very clear reasons).

I will argue that P&H were basically right on the descriptive level in that most of the properties they discussed are effects of one parameter. The parameter they proposed does not quite make sense, though, in terms of more recent theory of features, case, and agreement. Instead, I will argue that the parameter is, indeed, richness of agreement, quite directly, specifically the fact that ISc has, but MSc doesn't have, unvalued person and number features in T. The number of affected constructions is reduced, though, to (1) oblique subjects, (2) stylistic fronting, (3) null expletives, (4) null generic subject pronoun, (5) the Transitive Expletive Construction, (6) heavy subject postposing; all constructions that ISc has but MSc doesn't have. The other properties they discussed do not, in fact, correlate with richness of agreement.

The theory is based on the theory of agreement and null subjects articulated in Roberts (2009) and Holmberg (2009). As claimed by Platzack (1987), the null subject parameter is part of the story, but as revamped in Holmberg (2009). It works as follows: An expletive/quasi-argumental or generic pronoun is made up of the features [3SG, uCase]. In ISc finite T has the features [Tns, uNumber, uPerson, NOM, EPP]. Agree between T and the pronominal subject, in Chomsky's (2000) sense, yields a configuration where the subject's features are included in T's features: $[_{TP}$ [Tns, 3SG, NOM, EPP] $[_{vP}$ [3SG, NOM] ...]. This means that T and the subject pronoun form a chain, where the subject is a copy of T. As the lower copy in a chain, the subject is deleted/spelled out as null. T also has an EPP-feature which normally will attract the subject. However, when the subject is in a chain with T this is not possible: you can't both be part of T and be a specifier of T. Consequently some other category has to satisfy the EPP: You either merge an overt expletive with TP, or move some other category to specTP. In MSc, on the other hand, T only has the features [Tns, NOM, EPP]. After Agree, the subject will not form a chain with/be a copy of T, hence will not be deleted. Instead it will, invariably, be overt and attracted by the EPP. This rules out, in MSc, oblique subjects, Stylistic Fronting, constructions where an expletive is first-merged with TP (the TEC, heavy subject postposing, null subject constructions with overt expletive), and null subject constructions where a moved constituent satisfies the EPP. ISc, on the other hand, has to allow for movement or merge of non-nominative constituents with TP, which is what we find a variety of examples of.

I will also show that the ISc cluster of properties is found in other, unrelated languages, as predicted by the theory, once the effects of interacting parameters are controlled for.

Restructuring and OV in Older Icelandic

Þorbjörg Hróarsdóttir
thorbjorg.hroarsdottir@uit.no
Department of Linguistics, University of Tromsø

While Modern Icelandic exhibits a virtually uniform VO order, Older Icelandic (OI) had both VO and OV orders, as well as several 'split' word order patterns (cf. Hróarsdóttir 2000). Split patterns here mean word order patterns where a part of the clause is OV while another part is VO, see for instance (1). Further split orders involve two non-finite verbs in connection to double objects.

(1) a. hafer þu **þinu lidi jatat þeim** [DO - Vmain - IO]
have you your assistance promised them
'if you have promised them your assistance'

b. að hann skyldi aldrei **mega sól sjá** [Vaux - DP - Vmain]
that he should never be-allowed sun see
'that he should never be allowed to see the sun'

c. at hann mun **rada vilia ferðum sínum** [Vmain - Vaux - DP]
that he will decide want journeys his
'that he wants to decide his own journeys'

Focusing on the split orders, we introduce a new way to account for the loss of the attested OV patterns in the history of Icelandic, where we will localize the change to a category T. We argue that the loss of OV orders, in the form of loss of VP-extraction, is due to a change of the T-node attracting the VP. This change is identified with a change of parameters: Modern Icelandic only has incoherent complements, while OI had the option of having coherent complements as well. While coherent infinitives are *transparent* for several types of extraction processes, the incoherent infinitives block long distance scrambling (of the arguments into the domain of the matrix IP). Moreover, coherent infinitives give rise to the formation of verb clusters.

In coherent complements, there is a movement of PredPmain to [Spec, PredPaux]. PredPmain first moves to [Spec, CPmain] (CPmain is a transparent complement), and then on to [Spec, PredPaux]; this second step only takes place in German (and not in Dutch, where PredPmain only moves to [Spec, CPmain] and stays there), and gives the [Vmain - Vaux] word order of German. Since OI had both orders [Vaux - Vmain] and [Vmain - Vaux], it had the *option* of being either like Dutch or German in this respect, that is, either moving the PredP out of the TP, further up to [Spec, PredPaux], or permitting it to stay in [Spec, CPmain], depending on the type of the complement.

Following Hinterhölzl (2006), we argue that the TP can be 'defective' in some languages. If the lowest (local) TP is defective, then it is not an appropriate landing site for the VP; thus, the VP must move further up in search for a more appropriate landing position. In OI, the TP has the possibility of being defective, while in Modern Icelandic it cannot. Consequently, in Modern Icelandic, the VP moves only to the lowest TP. Since it can land there, it does not have to move further up. If the TP is an appropriate landing site, the VP can never move further up by UG economy conditions.

References

Hinterhölzl, Roland. 2006. *Scrambling, Remnant Movement, and Restructuring in West Germanic*. Oxford: Oxford University Press.

Hróarsdóttir, Þorbjörg. 2000. *Word Order Change in Icelandic: From OV to VO*. Amsterdam:

Welsh soft mutation and Word Grammar

Richard Hudson (UCL)

This paper is a response to Maggie Tallerman's excellent critique of the existing theoretical apparatus of Word Grammar ('Phrase structure vs dependendency: the analysis of Welsh syntactic soft mutation', JL 45, 2009). Tallerman's detailed consideration of syntactic soft mutation (SM) in Welsh reveals a number of weaknesses in a tentative WG analysis (published in Hudson 2007), which she calls the 'Dependency Distance' analysis (DD), in contrast with the well established 'XP Trigger Hypothesis' (XPTH), the claim that SM is triggered by a preceding phrase boundary. My paper will introduce a slightly less restrictive version of WG theory and a slightly different WG analysis of SM which meets all of Tallerman's criticisms.

SM is important for the debate about dependency structure because the mutation clearly marks the start of a phrase, and although this often coincides, in a head-initial language such as Welsh, with the phrase's head, it need not. The crucial weakness of the DD analysis is the difficulty of representing phrasal edges structurally, so I shall suggest how this gap may be filled by allowing syntactic dependencies to be associated with opening and closing 'edge-markers', symbolised as '[...]', which are located among the morphs on the level of 'form'.

Given these edge-markers, an analysis of SM is relatively straightforward using a generalisation which we might call the 'Valent Edge Trigger Hypothesis' (VETH): SM is triggered after a '[' which is associated with a valent (i.e. a dependency which is not an adjunct) and which immediately follows a ']'; I shall explain how this generalisation makes much the same range of correct predictions as the XPTH, and how it presupposes a range of 'unrealised' elements which are similar to *pro*.

One difference between the two analyses involves '*wh*-trace' elements, which she accepts but WG rejects. The crucial example is her (27), *Pwy brynodd delyn*? 'Who bought a harp?', where *delyn* has SM although there is no overt phrase before it because *pwy*, 'who', is fronted. She explains the SM by assuming *wh*-trace (though this assumption is controversial in her preferred theory, HPSG). My explanation invokes the fact that in such examples the wh-pronoun and the verb are mutually dependent; I shall argue that this complicated structure allows *brynodd* to be included in the phrase of *pwy*, which produces the expected ']' just before *delyn*.

Another difference between VETH and XPTH lies in their theoretical underpinnings: they both link SM not to a phrase, but to a dependency (called 'valent' or 'complement'), but this linkage is shown much more directly in the WG analysis than in the HPSG one. Moreover, VETH suggests a functional explanation for SM as a signal that a word is separated from the word on which it depends.

My talk will end with a brief review of the differences between dependency structure and phrase structure, arguing that the most fundamental difference of all lies not so much in the former's rejection of phrases but in the latter's rejection of direct word-word dependencies. I shall argue that this restriction is cognitively implausible, on the grounds that word-word links require the same cognitive apparatus as we apply to the social relations between individual people, so this apparatus should also be available for linking words directly. But once direct dependencies between words are allowed, the case for phrase structure collapses.

Cancellability Criterion for the Primary/Secondary and Explicit/Implicit Meaning Distinctions

Themed session 'Utterance Interpretation: Experimental and Theoretical Aspects'

K.M. Jaszczolt, University of Cambridge

Among the criteria Grice proposed for identifying conversational implicatures, cancellability is unquestionably the most celebrated one and the one that is often used as the main, obvious test for classifying speaker's meaning as implicit. Cancellability comprises two separate tests: *explicit* cancellability in the current context and *contextual* cancellability in a putative context (Grice 1989: 39-40). The purpose of this paper is twofold. Firstly, to demonstrate that, in spite of the recent criticism (Weiner 2006; Blome-Tillmann 2008), Grice's cancellability test remains a reliable and effective criterion. I argue here that, in order to refute these objections, instead of viewing these two tests as a conjunction, they should be viewed disjunctively as categorically different tests. The second objective is to employ cancellability for the discussion and delimitation of the primary and secondary meanings vis-à-vis the *what is said/implicated* distinction. The test is implemented in the current paradigm of contextualism (Recanati 2005), including its arguably most radical variety of Default Semantics (DS) which models primary meaning understood as the main, most salient meaning in so-called merger representations Σ (Jaszczolt 2005, 2009). The primary/secondary meaning distinction is construed as orthogonal to that between the explicit and the implicit content. Primary meanings do not obey the so-called syntactic direction in that they do not have to constitute developments of the logical form of the sentence – in agreement with experimental findings to the effect that c. 60-70 per cent of human communication in various tested cultures is conveyed via strong implicatures functioning as main intended meanings (e.g. Sysoeva 2007; Pitts 2005). For example, on standard contextualist accounts (e.g. Carston 1988, 2002; Recanati 1089, 2004), (2) constitutes the explicit content of (1).

(1) Everybody is going to Egypt this spring.

(2) Everybody from among the speaker's close acquaintances is going to Egypt this spring.

By rejecting the syntactic constraint, however, DS is able to model a more intuitively plausible (3) as the primary utterance meaning (and the truth-conditional content understood in the contextualist sense of truth-conditional pragmatics).

(3) Egypt is a very popular holiday destination among the speaker's close acquaintances this spring.

Cancellability is used as a criterion for these two distinctions and is assessed separately for the domains of primary and secondary meanings, as well as for what is said and what is implicated.

The role of the criterion in these two distinctions is assessed in a range of examples that pertain to the combinations of the following scenarios. Type (i): explicit meanings that are/are not cancelled, and are/are not followed by the cancellation of implicatures; type (ii): primary meanings which are explicit/implicit, are/are not cancelled, and are/are not followed by the cancellation of secondary (explicit/implicit) meanings. It is concluded that while explicit and implicit meanings pertaining to the presented scenarios both allow for relatively unrestricted cancellability, primary meanings are entrenched, and so are secondary meanings when they follow such entrenched primary meanings. The same concerns implicatures which follow entrenched explicit content in that explicit content which goes through uncancelled becomes, so to speak, primary meaning of the cognitively-based classification of type (ii). The conclusions of the paper are then twofold: firstly, Grice's criterion of cancellability is defended by means of the proposed amendment of weakening it to the form of a disjunctive test, and secondly, it is demonstrated that the criterion provides an argument in favour of the cognitively based distinction between primary and secondary meanings while it does not discriminate between the relative intentional strengths of explicit and implicit content. *A fortiori*, there is no cognitive basis to the syntactic direction principle adhered to by contextualists who use it to delimit what is said.

On the order of multiple topics and discourse-feature inheritance

Ángel Jiménez Fernández (University of Seville) ajimfer@us.es

This paper explores two possible syntactic configurations of multiple topics, attested across languages; namely, the strict *vs.* free arrangement of fronted topics in the left periphery. These two strategies may be used as a parametric basis to distinguish between languages which consistently allow for a strict order of multiple topics (Bulgarian and English, see examples in (1-2)) and languages which instantiate a systematically free order of multiple topics (Spanish, Romanian, Greek and Turkish, see examples in (3-4); underlining marks topics).

Bulgarian (Lambova 2001):

(1) a. Mama decata šte vodi na cirk. b. *Decata mama šte vodi na cirk.
mom kids-the will take to circus kids-the mom will take to circus
'As for mom and the kids, she will take them to the circus.'

English:

(2) a. Most of those problems this computer could solve in a second.
b. *This computer, most of those problems could solve in a second.

Spanish:

(3) a. Ángela, la tesis, en el Departamento la entregó el jueves.
Angela the thesis in the Department CL $submit_{past3sg}$ the Thursday
b. La tesis, en el Departamento, la entregó Ángela el jueves.
c. La tesis, Ángela, la entregó en el Departamento el jueves.
'Angela submitted her thesis in the Department on Thursday.'

Turkish (İşşever 2003):

(4) a. Ali kitab-ı buraya sabah bırak-tı. b. Ali buraya kitabı sabah bıraktı.
Ali $book_{ACC}$ here morning put_{past}
'Ali left the book here in the morning.'

I suggest that these rigid/flexible devices can be explained by implementing Chomsky's (2008) C-to-T feature inheritance mechanism so as to include both φ-features and discourse features (Miyagawa 2005; Author 2008), in combination with Richards' (1999) multiple-specifier approach to multiple movement. In my system, the possibility of free ordering of multiple topics is ultimately the consequence of lowering discourse features from C to T and specifying T as a multiple-specifier category in the relevant language. This implies that topic fronting in languages such as Spanish is an instance of A-movement.

Contrary to languages such as Spanish, in the other type of language represented by English discourse features are not lowered from C to T, which explains why topics undergo movement to the CP system, to an A'-position. The strict order of multiple topics in this kind of language follows from the fact that they move to the specifier of different Top heads in the CP domain, adopting Rizzi's (1997 and subsequent work) cartographic system.

Evidence supporting my analysis comes from floating quantifiers (FQ), super-raising and quantificational binding. Here I just focus on FQs. On the basis of Catalan data, López (2009) concludes that FQs are allowed only in A-movement, not in A'-movement (Lasnik 2003). If topic displacement involves A-movement in Spanish, it should be concurrent with FQs:

(5) a. María, las peras se las ha comido *todas*. b. Las peras, María se las ha comido *todas*.
Maria the pears CL CL $have_{pres}$ eaten all
'Maria has eaten all the pears.'

On the other extreme of my classification are languages such as English, in which topic dislocation has been claimed to involve A'-movement. If this is on the right track, no FQ should be expected to co-occur with a topicalised object. This prediction is borne out by (6):

(6) *Those problems this computer could solve *all* in a second.

On the Concept of Grammaticality
Which Method Best Reflects Grammaticality: Corpus Analysis or Elicited Data?

Tom S Juzek (tom.juzek@googlemail.com)
Faculty of Linguistics, Philology and Phonetics, University of Oxford

Directly linked to the question of the nature of linguistic knowledge and a researcher's access to it is the concept of grammaticality, which is crucial to both syntactic theory and linguistics in general. However, there is neither agreement on the foundation of grammaticality nor on the way knowledge of grammaticality is gained. Two common approaches are contrasted in the present paper: the analysis of corpora and the elicitation of data, viz. by goodness ratings (for an introduction see Borsley (2005)).

Both methods are scrutinised by the examination of transitive subject control verbs (as in 'Pete promised Will to stay', where Pete is the one staying). The phenomenon is first subject to a corpus analysis. Six subject control verbs (*offer*, *promise*, *guarantee*, *threaten*, *swear*, and *menace*) were analysed with Google (NB: Common corpora like COCA or BNC were not sufficiently large). From the first 200 hits, an estimate is given of how many of the hits are actually subject control. Then, the same verbs were analysed for acceptance by goodness ratings. A questionnaire was given to 30 native speakers of English (15 Americans; 15 Britons), asking them to rate sentences (which were based on real occurrences), according to their intuitions of grammaticality. For this, the method of Magnitude Estimation was used (following Bard et al. (1996)). The results were:

	Total Hits*	**%**	**Results**	**Goodness Ratings****
Offer	750.000	40	300.000	0.59
Promise	220.000	75	165.000	0.82
Guarantee	150.000	10	15.000	0.70
Threaten	20.000	40	8.000	0.75
Swear	1000	10	100	0.56
Menace	100	15	15	0.84

* Because of slightly varying results, total hits are rounded to their fifth digit (except *swear* and *menace*).
** A rating of 0.44 can be considered as low (i.e. it is perceived as ungrammatical), a rating of *1.28* as high (i.e. it is perceived as grammatical).

If both methods reflect linguistic reality equally, the results gained by the two methods would be expected to show a certain degree of correspondence. But the analysis, using a standard linear regression, applying the goodness ratings to the total hits, shows that this is not the case (slope = -0.0055; mean acceptability = 0.71; $P < 0.05$).
One could argue that the methods do not reflect linguistic reality equally, and proponents of each methodology might want to argue one way or the other. However, instead, it shall be argued that both methods reflect grammaticality, but different aspects of it, and that only combined a full picture of grammaticality is given. This account has been used by linguists intuitively, but it has not been argued for in detail. The present paper does so (whereas it also pays attention to possible implications). This view brings forward an intuitive understanding of grammaticality and it accounts for the data presented.

Bard, E. G., Robertson, D., Sorace, A., 1996. Magnitude estimation of linguistic acceptability. Language 72(1): 32 – 68.
Borsley, R.D., 2005. Introduction. Lingua 115, 1475 – 1480.

Informativeness from a speaker's and a comprehender's perspective

Napoleon Katsos[1,2] *& Dorothy Bishop*[2]
[1]University of Cambridge (nk248@cam.ac.uk); [2]University of Oxford

The literature on *under-informative* utterances and *scalar implicature* shows that when children evaluate other people's utterances that are only partially true, they tend to accept them – and that only eventually do they come to reject them as adults do [REF 1]. Similarly, the flourishing literature on *exhaustivity* shows that when children describe a situation themselves, they tend to offer just part of the information that is available to them, and only eventually do they produce fully-informative descriptions like adults do [REF 2]. These two literatures address the twin aspects of the same Gricean pragmatic skill, *informativeness*, from a comprehender's and a speaker's perspective respectively. Yet, to the best of our knowledge, there are no studies that allow a direct comparison between the production and the comprehension of informativeness. Besides the empirical interest, the development of informativeness can provide theory-critical evidence for *Interfaces Asymmetry Accounts* [REF 3 & 4], which predict that in cases where the output of grammar can receive more than one interpretation (an informative one and an under-informative one) child comprehension is delayed relative to production because of the rich processing resources that are required for comparing the possible interpretations and selecting the discourse-appropriate one.

In Experiment 1, 95 typically-developing English-speaking 5-, 7-, 9- and 11-year-old children (as well as an adult group) took part in a truth-value-judgment task that measures the comprehension and production of informativeness. It is found that even the youngest children are perfectly informative speakers (i.e. they give all the relevant information that they have witnessed), but there is a delay from the comprehender's perspective, since young children accept under-informative utterances. These data are compatible with Interfaces Asymmetry accounts. In Experiment 2 with a new group of 15 5-year-olds the paradigm was changed to a sentence-picture matching task with identical materials. Child performance improved dramatically, reaching the levels of the speaker-perspective in Experiment 1. In Experiment 3 we used an act-out task whereby participants were asked to act upon a set of props and toys in order to make the toys match the experimenter's utterance. Even the youngest participants acted based upon the informative interpretation of the critical utterances, to almost ceiling rates. Thus, the asymmetry between production and comprehension that was obtained in Experiment 1, a truth-value judgment task, disappeared in Experiments 2 and 3, a sentence-picture matching and an action-based task respectively.

Overall, we claim that even 5-year-old children are perfectly informative speakers and comprehenders. What develops with age in the comprehender's perspective in Experiment 1 is not pragmatic ability per se, but the metalinguistic skill to consider that violations of informativeness are grave enough to warrant rejection of an utterance. We propose that this is due to *pragmatic tolerance*: young children know when an utterance is pragmatically infelicitous (as evidenced in performance from the comprehender's perspective in Experiments 2 and 3 and the speaker's perspective in Experiment 1) but they do not consider violations of informativeness to be grave (as evidenced from the comprehender's perspective in Experiment 1). Note that young children were at ceiling with regards to rejecting semantically false utterances in all experiments. Hence children show no tolerance towards semantic violations, which demonstrates a remarkable ability to differentiate between semantic and pragmatic aspects of meaning.

REFERENCES [1] Noveck I.A. (2001). *Cognition*, 78 (2), 165-188; [2] Roeper, T. (2004) *Seminars in Speech and Language*, 25 (1), 41-56; [3] Reinhart, T. (2006). Oxford University Press; [4] Spenader, J., E. J. Smits & P. Hendriks (2009). *Journal of Child Language*, 36(1),23-52.

Crosslinguistic investigations in the acquisition of quantification

Napoleon Katsos[1], Nafsika Smith[1], Aneta Miekisz[2], Ewa Haman[2], Katerina Kostantzou[3], Spyridoula Varlokosta[3], Athina Skordi[4], & Kristine Jensen de Lopez[5]

[1]University of Cambridge (nk248@cam.ac.uk), [2]University of Warsaw, [3]University of Athens, [4]University of Cyprus, [5]University of Aalborg

We report the findings of an ongoing investigation in the comprehension of numerals and quantifiers (see Table 1) by English- (n=21), Greek- (n=29), Danish- (n=23), and Polish- (n=10) speaking 5- to 6-year-old children. **Predictions:** *Within* each language, it is predicted (see [1], [2] i.a.) that performance will be higher on certain quantifiers (numerals > universal & existential > proportional), and that certain aspects of meaning will be easier than others (entailments > scalar implicatures). *Across* languages, it is predicted that the set-theoretic (exclusion, inclusion, negation) and linguistic (entailment and scalar inferencing) competence required for the expressions tested should be uniformly available to children regardless of the specific grammatical properties of the language they speak. **Materials & method:** Participants heard 12 tokens for each type of sentence in Table 1, and they were asked whether the sentence was correct or incorrect for a visually represented situation. There were three visual situations, (a) None-arrangement: 0/5 objects are inside the boxes, (b) Subset-arrangement: 2/5 objects are inside the boxes, and (c) All-arrangement: 5/5 objects are inside the boxes. This design creates semantically true and false conditions for all sentences, as well as a semantically-true-but-pragmatically-under-informative condition for 'some', 'not all', 'some…not' and 'most'. Numerals ('1' to '5') were also tested.

Table 1: Type of sentences tested and % of correct responses. The correct response (Accept or Reject) is presented for each arrangement, together with whether this is mandated by semantics (S) or pragmatics (P). Only one of the two possible Reject-S conditions was tested for 'all' and 'none'.

	None: 0/5	**Subset: 2/5**	**All: 5/5**	**Total**
All the apples are in the boxes	Not tested	Reject-**S**: 94	Accept-**S**: 94	94
None of the apples are in the boxes	Accept-**S**: 90	Reject-**S**: 94	Not tested	92
Some of the apples are in the boxes	Reject-**S**: 99	Accept-**S**: 91	Reject-**P**: 73	87
Most of the apples are in the boxes	Reject-**S**: 54	Accept-**S***: 98	Reject-**P**: 73	75
Not all the apples are in the boxes	Reject-**P**: 48	Accept-**S**: 74	Reject-**S**: 92	71
Some of the apples are not in the boxes	Reject-**P**: 79	Accept-**S**: 85	Reject-**S**: 94	86

* For the quantifier 'most…' the subset arrangement consisted of 4 out of 5 toys being in the boxes

Results: see Table 1 for the English-speaking data for quantifiers (numerals were at ceiling, 95%). The investigation is ongoing, and so we only discuss numerical tendencies. With regards to *semantic* aspects of meaning: numerals and both universal quantifiers were high, while performance was lower but still above chance for 'some', 'most', 'not all' and 'some…not'. For the positive quantifiers, performance was lowest with proportional 'most', and for negative quantifiers with the complex 'not all'. For the quantifiers that have a *pragmatic* condition (Reject-P; 'some', 'most', 'not all' and 'some…not') performance was lower than the corresponding semantic condition (Reject-S) in every case except for 'most', where children were challenged by the Reject-S condition as well. While the rates of overall performance varied significantly between languages (e.g. Polish and Greek children produced fewer Reject-P responses for 'some' than English and Danish) the pattern of results reported for English (Reject S > Reject P; universal and existential > proportional i.a.) was also obtained in Greek, Danish and Polish. **Conclusions:** The development of quantification follows a crosslinguistically similar pattern in the languages that we tested. We discuss the implications for theories of the development of linguistic and mathematical cognition.

REFERENCES [1] I. A. Noveck (2001). *Cognition*, 78, 165-188; [2] G. Politzer, J.-B. Van der Henst, C. Delle Luche, I. A. Noveck (2006). *Cognitive Science*, 30, 691-723.

Attributive Comparatives and Logical Form

Koji Kawahara
Department of Language and Linguistic Science, University of York
kojik51@googlemail.com

The property of the Left Branch Condition (LBC) (Ross, 1967) in comparative clauses has been discussed under the assumption that the structure of comparative clauses is analyzed in terms of *wh*-constructions (Chomsky, 1977; Heim, 1985; 2000; Izvorski, 1995; Kennedy, 1999; Kennedy, 2002). Assuming movement of a degree term from DP, the ungrammaticality of (1a) is straightforwardly explained by the LBC. As shown in the LF structure (1b), extraction of a left branch element leads to the LBC violation:

(1) a. * Bill met a cleverer linguist than Steve met a psychologist.
b. Bill met a cleverer linguist than $[_{\text{CP}}\ Op_i$ Steve met $[_{\text{DP}}$ a t_i psychologist]].

In contrast, if a part of VP is deleted, the LBC is somehow 'canceled'. (2a) is a pseudogapping counterpart of (1a) but it is grammatical. Given the assumption that the LBC is effective at LF, the grammaticality of (2a) is problematic. Extraction of a degree term would violate the LBC in (2b), composing an inappropriate structure.

(2) a. Bill met a cleverer linguist than Steve did a psychologist.
b. Bill met a cleverer linguist than $[_{\text{CP}}\ Op_i$ Steve did ~~$[_{\text{VP}}$ meet]~~ $[_{\text{DP}}$ a t_i psychologist]].

The goal of this talk is to demonstrate that the LF-copy analysis provides an excellent account about the grammaticality of (2a). Assuming that an empty VP, of which the content is recovered at LF and that a free variable can be 'sprouted' as long as sprouting does not violate a phrase structure rule, I argue that a degree variable can be sprouted during LF-copy process (Chung et al., 1995). The sprouted variable that is expressed as d in (3) composes an operator-variable relation with an operator at the specifier of CP, returning a description of degree that functions as a standard of comparison. Since extraction of a left-branch element is not involved, the LBC is avoided in (2a). Under the proposed analysis, the LF structure assigned to (2a) is as follows:

(3) Bill met a cleverer linguist than $[_{\text{CP}}\ Op_i$ Steve did ~~$[_{\text{VP}}$ meet $[_{\text{DP}}$ a d_i psychologist$]_j$~~] a psychologist$_j$].

My analysis will be compared with that of Kennedy and Merchant (2000), in which PF-deletion makes otherwise ungrammatical examples acceptable, demonstrating that it achieves a conceptually and empirically more adequate theory. To this end, I point out the adjunct-complement asymmetry observed in pseudogapping in (4):

(4) a. * Jones acts in better films $[_{\text{CP}}$ than Op_i she acts in $[_{\text{PP}}\ t_i$ plays]].
b. * Jones acts in better films $[_{\text{CP}}$ than Op_i she does ~~$[_{\text{VP}}$ act $[_{\text{PP}}$ in d_i plays $]_j$]~~ $[_{\text{PP}}$ in plays $]_j$].
c. * Jones relies on a cleverer friend $[_{\text{CP}}$ than Op_i she relies $[_{\text{PP}}$ on t_i a colleague]].
d. Jones relies on a cleverer friend $[_{\text{CP}}$ than Op_i she does ~~$[_{\text{VP}}$ rely $[_{\text{PP}}$ on d_i a colleague $]_j$]~~ $[_{\text{PP}}$ on a colleague $]_j$].

Although Kennedy and Merchant (2000) analysis always excludes a prepositional remnant, my analysis correctly captures the contrast by postulating that (i) a degree term at the attributive position is sprouted, and (ii) the operator-variable relation established by sprouting is sensitive to subjacency à la Chung et al. (1995). Conceptually, I claim that 'head' leaving movement proposed by Kennedy and Merchant (2000) is untenable.

Structures of Modality in Korean

Shin-Sook Kim and Peter Sells, SOAS

Korean has nouns which are used for expressing possibility and necessity, such as *swu* ('ability/possibility'), *li* ('(epistemic) possibility'), and *philyo* ('(root) necessity'). *swu* allows both root and epistemic interpretations; in contrast, *li* and *philyo* only have one interpretation each, and are restricted to downward-entailing environment such as negative clauses or interrogatives. We consider here the structures that these modal nouns appear in, as in (1):

(1) a. mina-ka halwucongil TV-lul po-l swu iss-ta
Mina-NOM all day long TV-ACC watch-PNE ability exist-DEC
'Mina is able to watch TV all day long.'
'It is possible that Mina watches TV all day long.'

b. mina-ka ku mwuncey-lul phwu-l swu eps-ta
Mina-NOM that problem-ACC solve-PNE ability not.exist-DEC
'Mina is not able to solve the problem.'

c. mina-ka ku-lul chotayha-l li eps-ta
Mina-NOM he-ACC invite-PNE possibility not.exist-DEC
'It is not possible that Mina will invite him.'

It has been noted that root and epistemic interpretations may have different structures in some languages. We address this issue, arguing for Korean that the structures differ significantly, one being a true complex predicate, the other having a TP (at least) embedded under the modal noun:

(2) a. root: [NP$_{subj}$ ... V-*ul* ModalNoun *iss-ta*/*eps-ta*]

b. epistemic: [[$_{\text{TP}}$ NP$_{subj}$ ... V-*ul*] ModalNoun *iss-ta*/*eps-ta*]

In the root structure, there is just one TP, the matrix clause, containing a complex predicate; in such a structure the subject NP naturally scopes over the rest of the clause, including the modal noun. The evidence for this structure comes from the fact that the root interpretation disappears if the main verb (suffixed with *-ul*) is itself modified in any way, with tense or negation. Hence, while (3-a) has a root interpretation, the examples (3-b–c) do not (and compare (3-b) and (3-d)):

(3) a. mina-ka ku mwuncey-lul phwu-l swu eps-ta
Mina-NOM that problem-ACC solve-PNE ability not.exist-DEC
'Mina is not able to solve the problem.'

b. mina-ka ku mwuncey-lul phwul-ess-ul swu eps-ta
Mina-NOM that problem-ACC solve-PAST-PNE possiblity not.exist-DEC
'It is not possible that Mina solved the problem.' (epistemic only)

c. mina-ka ku mwuncey-lul mos phwu-l swu eps-ta
Mina-NOM that problem-ACC can.not solve-PNE possibility not.exist-DEC
'It is not possible that Mina is not able to solve the problem.' (epistemic only)

d. mina-ka ku mwuncey-lul phwu-l swu eps-ess-ta
Mina-NOM that problem-ACC solve-PNE ability not.exist-PAST-DEC
'Mina was not able to solve the problem.'

The evidence for the structures in (2) is considerable: the subject of the root examples is very natural with the topic marker *-nun*, while *-nun* is very unnatural in the epistemic examples, which have an embedded TP. Interactions with quantifiers (see (4)), negation and NPI licensing also diagnose the two different structures. The noun *swu* prefers structure (2-a) when used with the negative *eps-ta*; a quantificational subject scopes over it ((4-a)). With the necessarily epistemic noun *li*, the structure is (2-b), and a quantificational subject scopes under it ((4-b)):

(4) a. mina-man moim-ey o-l swu eps-ta
Mina-only meeting-to come-PNE ability not.exist-DEC
'Only Mina is unable to come to the meeting.' (*only* > modal)

b. mina-man moim-ey o-l li eps-ta
Mina-only meeting-to come-PNE possibility not.exist-DEC
'It is not possible that only Mina comes to the meeting.' (modal > *only*)

Manner and result verbs

A. Koontz-Garboden (andrewkg@manchester.ac.uk) & *J. Beavers* (jbeavers@mail.utexas.edu)
The University of Manchester & The University of Texas at Austin

Rappaport Hovav and Levin (in press) (RHL) argue that verbs fall into (at least) two classes: those entailing result (e.g. *break, smash, crush*) and those entailing manner (e.g. *run, walk, swim*). No verb entails both, so that the manner in which something comes to be broken is underspecified for *break* verbs, while the result is underspecified for *run* verbs. This follows from how verb meanings are built up lexically: a root can modify an ACT predicate, giving a manner reading (1a), or be an argument of a BECOME (1b), giving a result reading.

(1) a. [x ACT$_{<ROOT>}$] b. [[x ACT] CAUSE [y BECOME $< ROOT >$]]

We argue against this on empirical and theoretical grounds. Empirically, a critical issue is isolating appropriate diagnostic tools for discerning what verbs entail manner. In this paper we develop and review a number of such diagnostics, and show that manner of death verbs — including *crucify, drown, hang, electrocute, decapitate, asphyxiate, behead,* and *suffocate* (Krohn 2008) — entail both a result and a manner, and thus present a robust counterexample to RHL's claims. Furthermore, we show that the property of RHL's theory that they argue explains the complementarity, once spelled out in more detail, does not in fact predict it.

For change-of-state, we believe it uncontroversial that a verb entails change if it cannot be denied that a result state for some participant obtains, usually due to a scalar change (Beavers 2008). By this diagnostic, manner of death verbs, as shown in (2), clearly encode change.

(2)#Mary crucified/drowned/hanged/electrocuted Joe, but nothing is different about him.

The same obtains for canonical result verbs (*#Shane broke the vase, but nothing is different about it*), but not manner verbs (*Shane shouted loudly, but nothing is different about her*).

RHL define manner as non-scalar change, including temporary changes that define actions, such as the movement of arms and legs during running. Restricting ourselves to this notion of manner, we diagnose it by adapting tests for actionhood from Cruse (1973) and Gaylord (2007). Result verbs, but not manner verbs, can be followed by a clause that denies an action occurred. Crucially, manner of death verbs pattern like canonical manner verbs:

(3) a. Jim destroyed his car, but didn't move a muscle (rather, he neglected his regular maintenance).
b. #Bob ran, but didn't move a muscle.
c. #Jen crucified/drowned/hanged/electrocuted/beheaded Al, but didn't move a muscle.

Furthermore, manner verbs are unambiguous under negation (negated manner) while caused change of state verbs are not: either the cause is negated or the result is (or both) (Dowty 1979).

(4) a. Negated Manner: Jim didn't run — he swam instead.
b. Negated Cause: Jim didn't break the vase — you broke it!
c. Negated Result: Jim didn't break the vase — he fixed it!

Verbs of death are multiple ways ambiguous, showing they have manner and result components:

(5) a. Negated Manner: Jim didn't drown Bob — he electrocuted him instead!
b. Negated Cause: Jim didn't drown Bob — he held his head under, but he really died of a stroke!
c. Negated Result: Jim didn't drown Bob — he choked on the water but survived!

A range of diagnostics thus converges on verbs of death having both manner and result components. Empirically, then, the manner/result complementarity is not supported, even if many verbs tend to only encode one or the other.

Theoretically, we argue that RHL's proposal — that a root can only modify ACT or be an argument of BECOME — is a stipulation. In a neo-Davidsonian framework, "argument" roots are predicates of states, while "modifier" roots are predicates of events. There is no a priori reason why a single lexeme cannot have two roots in this sense, and in fact caused change-of-state verbs impose constraints on causing events and the result states simultaneously by definition. This suggests that manner/result complementarity cannot follow from any formal property of verb meanings, a welcome result given our empirical observations.

Vertical polysemy: word senses and their boundaries

Anu Koskela (a.m.koskela@sussex.ac.uk)
Linguistics and English Language, Department of English, University of Sussex

The focus of this paper is a type of variation in word meaning where a single lexical form has the potential to designate broader and narrower categories in different contexts. Examples of this phenomenon include *drink*, which can either mean 'consume liquid' or, more specifically, 'consume alcohol' and *dog* with its 'canine' and 'male canine' readings (see e.g. Horn, 1984; Kempson, 1980). This kind of variation in word meaning is in fact pervasive in language: the meaning of *shoe*, for instance, can be construed as either including or excluding boots, while *salad* may refer to just "green" salads, or also include other kinds of mixed, chopped foods, such as pasta and potato salads.

Within Relevance Theoretic work on lexical pragmatics, comparable cases of variation in category inclusiveness have been treated in terms of inferentially derived *ad hoc* concepts, which may be either broader or narrower than the linguistically encoded meaning of the form in question (e.g. Carston, 2002; Wilson, 2003; Wilson and Carston, 2007). However, I argue that one of the problems with such an account is that the notion of *ad hoc* concepts isn't sufficiently constrained. For instance, Carston (2002:324) argues that in *The birds wheeled above the waves*, *bird* is understood as designating an *ad hoc* category that consists of birds that one finds by the sea. But I maintain that such instances of very fine-grained meaning modulation need to be distinguished from cases where the broader and narrower readings of a form can be shown to be functionally distinct – for instance, truth-conditionally independent, as the broader and narrower readings of *shoe* below:

(1) A: Are you going to wear shoes?
B: **Yes**, I'm not going out barefoot! / **No**, I'll wear my boots.

I therefore consider variation in category boundaries from the perspective of a view of lexical meaning that stems from work in Cognitive Linguistics, including Langacker (1987), Tuggy (1993), Geeraerts (1993) and in particular Croft and Cruse (2004). Within this account, word senses are seen as being construed in the context of word use, in a process involving the conceptualisation of a specific category, delimited by a sense boundary that separates that sense from other construable senses of the same form (Croft and Cruse, 2004:109). Because sense boundaries may be "harder" or "softer" to varying degrees, the distinction between lexical ambiguity and vagueness is a matter of degree. Nevertheless, one can draw a principled distinction between cases where specific readings exhibit at least some symptoms of autonomy and those where no such distinctness is present.

From this perspective, I argue that cases where the broader and narrower readings of a lexical form exhibit some symptoms of distinctness of sense – including truth-conditional independence – amount to contextual *vertical polysemy*. Otherwise, the variation is due to modulation *within* the boundaries of a sense unit. Different cases of vertical polysemy do, however, exhibit differing degrees of distinctness, with some falling somewhere between full polysemy and vagueness. Such cases may be compared with other types of meaning variation involving less-than-fully-distinct senses, such as the 'text' and 'tome' facets of *book* or the 'chef's knife' and 'cutlery knife' microsenses of *knife* discussed by Cruse (2000a, 2000b, 2001, Croft and Cruse, 2004).

English weak definites: towards a diachronic account

Christopher Lucas (cbl23@cam.ac.uk)
Department of Linguistics, University of Cambridge

This paper discusses two classes of so-called 'weak definites' (after Poesio 1994), which have occasionally been commented on, but have received little in the way of explanation to date. Weak definites are problematic in that they are morphosyntactically marked definite, but resist assimilation under any of the main accounts of the abstract semantic-pragmatic category of definiteness (e.g. Hawkins 1991, Heim 1988; *pace* Löbner 1987).

(1) I love going to the pub.
(2) He came to the bank of a river.

In inalienable possessive phrases as in (2), definite marking of the head is grammatical (and indefinite marking rather strained) even where the referent of that head is necessarily non-unique – every river, for example, necessarily has two banks, and reference in (2) is not to one of these in particular. In 'non-specific' weak definites as in (1), a standard unique/identifiable reading is sometimes available, but there is a second, often more salient, reading on which no specific entity is denoted.

My claim is that these two categories of weak definites have arisen through a diachronic erosion of the semantic content of definiteness marking and are thus not semantically definite. The assumption that apparently the same morpheme could in principle have different contributions to logical form in different syntactic/lexical contexts (i.e. be polysemous) will be rejected by staunch adherents of Grice's Modified Occam's Razor, but it should be uncontroversial in the present case given a) a universally available abstract semantic category of definiteness, b) that the exponents of this category can have different distributions in different languages (cf. English *(*the) justice* vs. French **(la) justice*), and moreover c) that these items are known to be capable of losing their definite meaning altogether and coming to attach to all nouns, including those marked indefinite, as can be observed, for example, in the recorded history of Aramaic (Greenberg 1978).

I argue that non-specific cases as in (1) arise through the reanalysis of definite-marked NPs with genuinely definite referents as part of a more-than-compositional construction denoting an activity (e.g. 'pub-going', where drinking must be high on the agenda) to which definiteness no longer applies. That is, given a sufficiently salient activity typically associated with the referents in question (compare *the bank, the (tele)phone, the toilet*), definiteness marking can become semantically empty in these cases.

Cases involving inalienable possession as in (2) are more complex. I argue that the bleaching of the semantic content of definiteness marking observed here occurs specifically in inalienable possessive constructions due to a fundamental inconsistency between the semantics of indefiniteness marking (as opposed to no definiteness marking) and that of relational nouns such as *bank*. Non-predicative NPs marked indefinite seem to refer by invoking the category described by the determined noun and contributing some token of that category to the proposition expressed. But, by definition, relational nouns express relations between entities, they do not express (tokens of) categories (there is no category 'bank' independent of the categories which have banks). This is reminiscent of definiteness, for which a (uniqueness) relation to other entities is also an inherent part of its semantics. The result of the semantic mismatch between indefiniteness marking and relational nouns is that when it becomes obligatory in a language for referential NPs to be overtly marked as such by means of either a definite or indefinite article (this occurred in the Late Middle/Early Modern period in the case of English), the definite article is grammaticalized as the preferred marker of relational nouns, even in cases where uniqueness/identifiability does not apply, thanks to its inherently greater semantic compatibility.

Predicate Focus in Tundra Yukaghir

Dejan Matic (dejan_matic@eva.mpg.de) & *Irina Nikolaeva* (in3@soas.ac.uk)
MPI for Evolutionary Anthropology & SOAS

Broad verb focus (verb + argument(s)/adjunct(s)) and narrow verb focus, often subsumed under the name of Predicate Focus, show a crosslinguistic tendency to be encoded similarly or identically. In this paper, we argue on the basis of the data from Tundra Yukaghir (TY) that this systematic ambiguity may have to do with the economy of pragmatic inferencing.

TY has a verbal particle *mə(r)=*, which has been described in the literature as a marker of declarative illocutionary force, positive polarity, and/or Predicate Focus. We show that the first two approaches are inadequate and that *mə(r)=* is indeed a Predicate Focus marker. Its usage is obligatory when the focus falls on the verb to the exclusion of all other elements in the clause. This includes polarity focus (answers to yes/no questions, responses to orders, corrective utterances) and the contexts, in which the only possible reading is narrow focus on the verbal content, as e.g. in clauses without non-verbal elements. On the other hand, *mə(r)=* is impossible with a narrow focus on a non-verbal element. On the first approximation, then, *mə(r)=* indicates a narrow focus marker on the verb and displays the same systematic ambiguity as nuclear stress in many European languages (focus on the verbal content and focus on the assertive component). There is one important difference, though: *mə(r)=* is much more frequent in TY natural discourse than nuclear stress on the verb in English or German. This is because it is also regularly used in contexts which imply broad verb focus, i.e. it allows for focus projection to take place, spreading from the particle to other elements of the clause. Furthermore, *mə(r)=* is especially frequent with telic/perfective verbs whereas atelics/imperfectives, especially those denoting states, typically occur without *mə(r)=*.

In order to explain these facts, we propose the following interpretative hierarchy. The particle *mə(r)=* denotes Predicate Focus and is systematically ambiguous between broad and narrow verb focus readings. Broad verb focus is the default interpretation, as witnessed by its frequency in natural discourse. If the speaker intends to exclude non-verbal elements from the focus domain or if they are absent altogether, the scope of *mə(r)=* is reduced to the verb itself (narrow verb focus). In this case, there are at least four possible interpretations. If the lexical content of the verb is focusable, then it is this aspect of verbal meaning that is interpreted as focal. If it is not focusable (because of its discourse-pragmatic properties or semantic "lightness"), one possibility is to narrow down the scope of the focus to the clausal polarity. This is an interpretative procedure compatible with all classes of verbs. If the discourse does not allow polarity focus reading, the interpretation is determined by the aspectual properties of the verb. Telic/perfective verbs have an aspect focus reading ('already'), whereas atelic verbs, especially statives, often receive an additional element of meaning via pragmatic enrichment. For instance, numerical verbs 'to be one', 'to be two' etc. regularly have a restrictive reading when in the scope of *mə(r)=* ('to be only one', 'to be only two'); with other statives, *mə(r)=* typically conveys a strong affirmative meaning ('true', 'no doubt', or the like).

There is no evidence that these interpretations correlate with a difference in syntax. The choice appears to be governed by the hierarchically structured interaction of information structure, pragmatic inferencing and lexical semantics. We conclude that Predicate Focus in TY is not specified for scope and is completely dependent on context for its resolution. Even though TY displays a typologically rare feature of obligatory morphological marking of the focal part of the proposition, it does so by radically underspecifying both the focal scope and its interpretative possibilities.

A Unified Account of the English Perfect and Past Tenses

Wilfried Meyer Viol (wilfried.meyer_viol@kcl.ac.uk), King's College, London
Howard Jones (howard.s.jones@kcl.ac.uk), King's College, London

We propose a formal analysis of the perfect and past tenses in English, including their interaction with each other and with perfective and imperfective aspect. We thereby address a plethora of `puzzles', and `paradoxes' reported in the literature and we account for the 'extended now', 'current relevance', 'specificity' and 'lifetime' effects of the perfect, as well as the `imperfective paradox'.

Temporal puzzles include (a) the subject lifetime effect of the perfect but not the preterite: *Einstein visited Princeton, Hawking has visited Princeton, *Einstein has visited Princeton,* (b) specificity effects allowing the preterite *Hawking visited Princeton yesterday* but not the perfect **Hawking has visited Princeton yesterday*. By contrast the pluperfect allows a temporal specification: *Einstein had visited Princeton in 1933*.
Non-temporal puzzles involve the `current relevance' of the perfect. Without further specification *John has climbed Mount Everest* but not *John climbed Mount Everest* can be used to emphasize that, for example, John has stamina. But given an explicit question *Does John have stamina*? the preterite and perfect are interchangeable.

Our analysis is based on utterances denoting events, interpreted as sets of intervals over a branching time structure, the `run-times' of the event (Dowty, 1979). An event is structured as a **telic** (cumulative) or as an **atelic** (state) event. `Atomic events' are denoted by verbs walking, living, etc. as walking-, living-events, etc. Complex events are constructed from atomic ones using **role-**, **temporal** -, and **adverb**-operators, mapping events (types) to events (types), and an utterance time-operator, mapping an event type to an event token. **Roles** turn e.g. a *walk*-event into a *walk to school*- and a *John walk to school*-event by specifying a goal-and an agent-role respectively.
As **temporal operators** we consider PAST and PROGRESSIVE; **utterance time** UT locates in an event all intervals it intersects, and (temporal) adverbs (yesterday) differ from roles in that they may outscope UT.

Scope interaction between the operators accounts for the temporal puzzles above. For instance, the contrast between the perfect *(Einstein(PAST(visiting-Princeton)))* and the preterite *(PAST(Einstein(visiting-Princeton)))* addresses the subject life-time effect and the contrast between perfect *(yesterday(UT(Hawking(PAST(visiting-Princeton)))))* and preterite *(yesterday(UT(PAST(Hawking(visiting-Princeton)))))* addresses the specificity effect. W.r.t the non-temporal puzzles, the formalization allows disjunctions $B \vee \neg B$ to hold at utterance time UT or not. A *question* at UT is a disjunction $B \vee \neg B$ holding at UT such that neither of the disjuncts holds there. An utterance in the perfect asks and answers some question at UT, it raises and settles some matter. This is our formalization of `current relevance'. So for a perfect A there is some question $B \vee \neg B$ it poses and answers at the same time: $(A \wedge (B \vee \neg B)) \supset B$. In case the question $(B \vee \neg B)$ is explicitly given, $(A \supset B)$ (conclusions of the preterite) and $(A \wedge (B \vee \neg B)) \supset B$ (conclusions of the perfect) are equivalent.

Our analysis in terms of scope interactions generalizes to languages where perfect, past and imperfective interact in different ways, and sheds a new light on Reichenbach's notion of **reference time** (Reichenbach, 1947).

Welsh Prenominals and the Syntax-Morphology Interface

Ingo Mittendorf (ingo.mittendorf@btopenworld.com) and *Louisa Sadler* (louisa@essex.ac.uk)
Department of Language and Linguistics, University of Essex

Welsh is a head-initial VSO language — unsurprisingly the limited material that *can* appear before a nominal head shows some unusual behaviour: weak determiner forms (the definite article and possessives) can only have narrow scope if followed by a coordination and must be repeated (1), even (in general) when the coordination has a single referent (2). In contrast, a strong determiner form such as *pa* 'which?' can have wide scope (3). (4-5) show more complex NPs: if an adjective intervenes between a weak determiner and a coordination of nouns, the determiner is not repeated (4); on the other hand, if the first coordination in the NP is adjectival, the determiner appears on each conjunct (5). Amongst other prenominal material, numerals (followed by a SG noun) cannot have wide scope either (6).

(1) *y tadau a *('r) meibion*
the fathers and the sons

(2) *fy Arglwydd a *('m) Duw*
my Lord and my God

(3) *pa unigolion a sefydliadau*
which individuals and institutions

(4) *y gwahanol afiechydon a chlefydau*
the different illnesses and diseases

(5) *yr unig a *('r) prif gymeriad*
the only and the main character

(6) **pum [bachgen a merch]*
five [boy.SG and girl.SG]

The behaviour of weak form determiners ("clitics") as in (1-2) is an often-stated fact in descriptions of Welsh, but the *prima facie* contradictory pattern in (4), the peculiar pattern of repetition in (5), the contrast to strong form determiners as in (3), not to mention the fact that numerals as in (6) can only have narrow scope, seem to have escaped notice and, to our knowledge, still await linguistic analysis.

We examine the data above from the non-transformational, lexicalist point of view of Lexical Functional Grammar (LFG; Bresnan 2001, Dalrymple 2001), which distinguishes two levels of syntactic description, c(onstituent)-structure and f(unctional)-structure. In LFG the numeral's narrow scope in (6) *could* be functionally constrained, but an f-structure approach is not feasible or desirable for the data in (1-2, 4-6), raising doubts about the validity of any functional approach to constrain narrow scope *per se* for prenominals. Rather we argue that this data should be accounted for in terms of the c-structure and its relationship to morphology. We find that the heuristic value of coordination as a criterion to determine constituency ("syntactic atomhood"), probably most explicitly addressed by Miller (1992), assumes a more central role than often assumed. Taking into account recent work in LFG on possible (and apparent) mismatches between morphosyntax and syntax (Luís and Otoguro 2006 on European Portuguese pronominal clitics, which owes much to Anderson's (2008 and earlier) notion of phrasal affixation), Wescoat (2002) on Lexical Sharing, Toivonen (2003) on non-projecting words), we come to the conclusion that Welsh weak form determiners are not independent syntactic atoms and are morphological affixes whose host selection is phrasally determined. However, we argue that parameters such as syntactic atomhood, morphological affixhood, host selection need *a priori* need to be considered independently: a specific combination of these properties explains (4) and (5), as a consequence of which the conjuncts of a coordination appearing phrase-initially must match in the morphosyntactic feature of determinedness. Our approach suggests that numeral-noun constructs (6) may also be syntactically opaque, raising issues which are largely unaddressed in previous lexicalist (specifically LFG) work.

Prosody and the Typology of 'Multiple-Fronting' Languages

Louise Mycock (louise.mycock@ling-phil.ox.ac.uk)
Faculty of Linguistics, Philology and Phonetics, University of Oxford

It is well known that the syntax of multiple 'wh' questions (MQs) varies cross-linguistically. One type of MQ formation strategy is typically identified as 'multiple fronting': in a language such as Czech, question words in a MQ appear clause-initially (1). However, fronting is a type of syntactic focusing, and as the syntactic position associated with focus is not necessarily clause-initial (in Hungarian, for instance, it is immediately preverbal), I recast multiple fronting as multiple syntactic focusing in order to capture data from a wider range of languages, in the spirit of Horvath's (1986) Focus Constraint on question formation.

While Rudin's (1988) seminal article discussed variation in 'multiple-fronting' languages and has formed the basis for further research into the syntax of MQs, their prosody has received little attention. Through the analysis of spoken data, this paper explores MQ formation in two case-study languages: Hungarian (2) and Slovene (3). Multiple syntactic focusing is used to form neutral MQs in both, but the associated pitch patterns differ in two important respects: (i) which question word is prosodically prominent (the first one in Slovene, the last one in Hungarian; marked in bold in the examples), and (ii) the pitch contour associated with that prominence (falling followed by a low plateau in Hungarian, rising followed by a high plateau in Slovene).

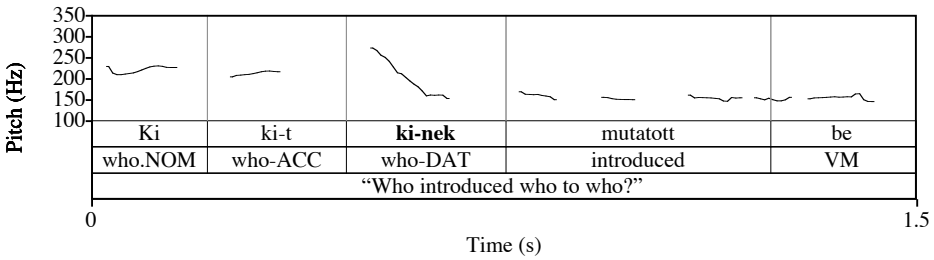
Given that any requirement for question-word focusing is met in the syntax in this type of language, the apparent prosodic focusing of a single question word in each case is unexpected. I propose that rather than simply 'double marking' focus though, the prosody associated with MQ formation in Hungarian and Slovene has a distinct function. What these two languages have in common is that native speakers identify the prosodically prominent question word as being what a MQ is 'about', regardless of the relative order of the (syntactically focused) question words, indicating that prosody has an effect on interpretation that syntax does not. The data presented thus reveal another dimension of possible variation in MQ formation.

(1) CZECH

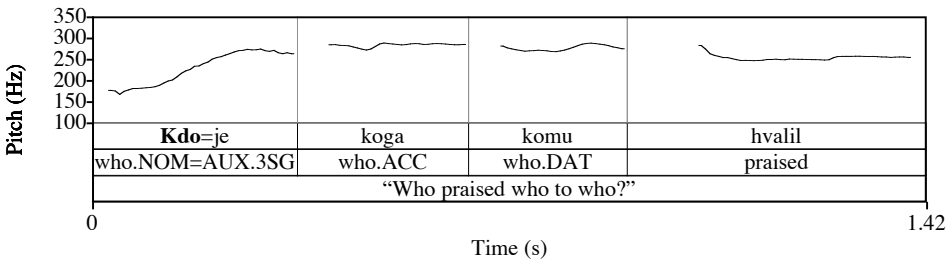
Kdo	*koho*	videl?
who.NOM	who.ACC	see.PAST

'*Who* saw *whom*?' (Rudin 1988: 449)

(2) HUNGARIAN



(3) SLOVENE



A disparity between lexical and non-lexical representations in Japanese

Kuniya Nasukawa (nasukawa@tscc.tohoku-gakuin.ac.jp)
Department of English, Tohoku Gakuin University

According to the literature, Japanese has two types of verb stems: one type ends lexically in a vowel (e.g. *mi* 'watch, see' INFIN) and the other in a consonant (e.g. *jom* 'read' INFIN). In this respect, allowing both vowel-final and consonant-final patterns apparently makes Japanese similar to systems such as English. On the other hand, non-lexical (or derived) forms in Japanese never end in a consonant (syllabic nasals are not regarded as consonants here); e.g. *jom* + *-u* PRESENT > *jomu* 'someone reads…'; *jom* + *-anai* NEGATIVE > *jomanai* 'someone does not read…'. This entails that two distinct static regularities operate in Japanese, one at the lexical level and the other at the non-lexical/derived level. This disparity is typically observed in the kind of multi-stratal phonological derivations associated with SPE and in mono-stratal models such as Optimality Theory. In both cases syllable structure is lexically unspecified but constructed during the course of derivation (for SPE) or as a result of constraint interaction (for Optimality Theory).

However, some approaches (Harris & Lindsey 1995, Kaye 1995, Takahashi 2004, Nasukawa 2005, 2007) claim that syllable structure cannot be excluded from the lexicon. Although there is some disagreement as to how much prosodic structure should be stated in the lexicon, it is generally agreed that syllabic constituents must be included (for a detailed discussion see Takahashi 2004: Ch5). Also, following the recent trend in mono-stratal models, lexical representations are sufficiently complete to be read as phonological representations that can be accessed by sensorimotor systems (Harris & Lindsey 1995, Kaye 1995). This leads us to employ only a single type of static pattern in phonology rather than to allow two distinct ones. In order to achieve this line of argument, I adopt a licensing-constrained model of syllable structure (Harris 1997, Takahashi 2004, Nasukawa 2007) and a monovalent model of phonological primes (elements: Harris 2005, Nasukawa & Backley 2008, Backley & Nasukawa 2009) for representing phonological structures. I then claim that there are no consonant-final verb stems in Japanese — in representations, an apparent final consonant is always followed by a melodically empty vowel which phonetically manifests itself as the neutral vowel *u* and the whole expression corresponds to its present tense form (e.g. *jom*∅ interpreted as *jomu*). A similar discussion will be provided for other phenomena, with a view to excluding this dual approach across the phonological system of Japanese.

Williams Syndrome, wh-syntax and the modularity debate

Diane Nelson, University of Leeds (d.c.nelson@leeds.ac.uk)
Vesna Stojanovik, University of Reading (v.stojanovik@reading.ac.uk)
Theo Marinis, University of Reading (t.marinis@reading.ac.uk)

One of the main theoretical debates in linguistics concerns the question of modularity: to what extent does language, particularly syntax, develop as a cognitive domain or module separate from other cognitive abilities from birth? Language impairments - including Williams Syndrome (WS), a rare hereditary disorder that causes severe learning difficulties - have been used as a source of evidence in the modularity debate. Some studies have found that WS children perform significantly better in language tasks than expected for their mental age (Clahsen & Almazan 1998; Bellugi et al 2000); these results have been taken as evidence for innate modularity because language abilities appear to be spared in contrast to other cognitive skills. Other studies have found that WS children do not have a "verbal advantage" for their mental age, and that their syntactic abilities are in line with their other cognitive abilities (Karmiloff-Smith et al. 1997, Stojanovik et al. 2004). According to the Neuro-constructivist view (Karmiloff-Smith 1998), the genetic abnormality which causes Williams Syndrome affects the developmental pathway for each cognitive skill. This predicts that while children with WS may sometimes score relatively well in language tasks, they still acquire and process language in a different way from typically developing children.

What is the best way to evaluate these competing theories? Previous studies looking at the syntactic abilities of language-impaired children have used traditional "off-line" tasks, which have been found to overestimate language deficits. Eye tracking, a relatively new technology, allows direct observation of how people process language by monitoring their eye-movements as they view a visual scene while listening to a sentence. Eye tracking while listening has been used to investigate syntactic processing of wh-extracted sentences in adults with Broca's aphasia (Dickie et al 2007). We have adapted this experimental design in a pilot experiment using a Tobii eye tracker. We tested a group of children with Williams Syndrome along with groups of typically developing children matched for both age and receptive language abilities. The children were asked to listen to a recorded story while viewing images of participants on a screen, and then answered a question about the story. We found that in the off-line tasks, the WS children processed wh-object questions as well as the controls. On the other hand, in object cleft yes-no questions, the WS children scored significantly worse than the controls, and only scored correct results when the answer to the question was "yes." These off-line findings initially appear to support Karmiloff-Smith's neuro-constructivist view since WS show a distinct pattern from typically developing children and relatively poor syntactic processing abilities. However, the eye tracking results reveal a different picture: across all the tasks, and even where WS children performed poorly offline (for example object clefted questions to which the answer is "no"), WS children on average show similar patterns of looking at the participants onscreen as the control children. This suggests that for WS childrens' unconscious, online syntactic processing is similar to that of typically developing children, lending support to the "modularist" view. Our results raise important questions about the nature of syntactic competence and the efficacy of using evidence from language impairment in the modularity debate. The experiment also allows us to evaluate eye tracking as an appropriate methodology for research in Williams Syndrome.

Subjects and floating quantifiers in appositives

Kathleen M. O'Connor (kaoconno@gmail.com)
UMR 8163 Savoirs, Textes, Langage, Université de Lille 3

Non-finite appositives of the type illustrated in (1), though they appear to consist of a single constituent (see DeVries (2006)), have sometimes been analysed as clausal in nature.

(1) a. NP: John, my best friend, lives down the street.
b. PP: John, in hospital with flu, won't be coming to the meeting.
c. AP: John, happy about the report, congratulated everyone on a job well done.

For example, Doron (1992) proposes that appositives consist minimally of a predicate, while McCawley (1995) derives such examples from an underlying appositive relative clause. In both analyses, the presence of floating quantifiers is advanced as evidence for this underlying clausal structure:

(2) a. The men, *both/all* doctors, were awarded medals. (Doron, 1992: 31)
b. Sauter is...living with his lawyer-wife Kathleen—the daughter of Pat Brown and sister of Jerry Brown, *both* former governors of California. (*Parade*, 10/5/87; McCawley, 1995)

However, such examples are ambiguous: they are consistent with a stranding analysis of FQs (e.g. Sportiche, 1988) or with an analysis in which the Q is a subject, as seen in (3) for finite clauses.

(3) a. They are *all/both* doctors. *Both/All* are doctors.
b. They are *both* former governors. *Both* are former governors.

It is the absence of a finite verb that makes it difficult to determine the position of the Q in appositives. One piece of evidence that is, however, available in appositives concerns the presence of adverbs (O'Connor, 2008). In the present paper it is shown that the interplay between adverbs and DP positions can be used to determine the status of these Qs.

Under a cartographic analysis of adverb placement such as that proposed by Cinque (1999), each class of adverbs is restricted to a fixed position in the clause. Moreover, the adverb classes are assumed to be ordered in a strict hierarchy. Cinque (1999) also suggests that DP positions that can host subjects and FQs are found among these adverb positions. Finally, Cinque (1999) argues that subjects are confined to positions to the left of the adverb *already* and all adverbs lower down.

Given these assumptions, the relative positions of subjects, adverbs and FQs in finite clauses can be used as a diagnostic for the position of the Q in an appositive. Specifically, if Qs can be found to the right of *already*, then they cannot be subjects and must therefore be floated from a subject position.

It is shown that this is indeed the case. Moreover, Qs also occupy higher positions, consistent with a subject or FQ analysis. It is posited that they can, in fact, occupy a subject position and that they take a PRO complement (see Lobeck (1995)). Additional evidence for the potential of an FQ to occupy a subject position derives from the presence of non-floating Qs, e.g. *some* or *many*, in an appositive. Finally, the presence of anaphors within an appositive provides further support for the idea of a PRO subject. These conclusions have implications for the overall analysis of appositives and indicate that they should be viewed as having a clausal structure.

Changing rhythmic patterns in the Medieval French octosyllable

T. M. Rainsford (tmr31@cam.ac.uk)
Department of Linguistics, University of Cambridge

Medieval French verse is conventionally considered to be purely syllabic (Lote 1949–96). This paper will show that within the constraints of a syllabic meter, the rhythmic patterns attested in the French octosyllable change greatly over the course of the medieval period and will suggest that these changes reflect prosodic change in the language as a whole.

There is a long tradition of work claiming that the earliest French texts (C9–11) show syllabo-tonic (iambic) meter (Suchier 1952, Klausenburger 1970, Noyer 2002), which is subsequently lost. The claim is interesting, as early French displays characteristics of a language with strong lexical stress (e.g. diphthongization of tonic vowels, reduction to schwa or deletion of unstressed vowels) but during the medieval period, the stress assignment rules were reanalysed, giving the modern French system in which stress is assigned at the level of the phonological phrase (Post 2000) and is not salient to speakers at the word level (Peperkamp et al. 1999).

I refute the claim that the iambic tendency of early texts is consistent enough to be considered part of the meter (contra Noyer 2002), but agree that the rhythm of the octosyllable changes over time. I combine the line-by-line study of verse used in generative metrics with more quantitative approaches in order to measure the rhythmic patterns of individual lines. Rather than attempting to find the 'average' rhythm of each text (a drawback of the 'stress curve' approach of e.g. Le Mée 1978 and Guthrie 1987), I focus instead on the frequency of particular rhythmic patterns across different texts. Basing myself on a corpus of fifty 500 line extracts from octosyllabic texts drawn from C11–15, I begin by marking stressed syllables using an automated algorithm. I then quantify the number of lines in each text that show a particular rhythmic pattern. Two sample patterns are given below; stressed syllables are underlined.

(1) **2+2+2+2 / Iambic pattern:**

que/ tant/ a/veit/ le/ rei/ ser/vi (Marie de France, *Lai de Lanval*, l. 40)

(2) **2+3+3 pattern:**

mon/ branc,/ je/ me/ tais/ du/ four/reau (François Villon, *Le Testament*, l. 1025)

I show that there while there is a decline in patterns of type (1), there is also a rise in patterns of type (2). This shows not only that, as has long been suspected, iambic rhythm was more common in the oldest French texts than in later texts, but also that later stages of the language favour a more anapestic rhythm. I will suggest two possible conclusions from this data, which remain topics of my continuing research. Firstly, that the increased use of phonological proclitics (articles, prepositions and subject pronouns) and greater fixity of word order may have caused a lengthening of the prosodic word in C13–15 French, disfavouring alternating rhythms. Secondly, that the increased variety of rhythmic patterns attested in later texts shows that stress is no longer a salient feature in the organization of verse, which may reflect the loss of stress as a salient feature in the language of the time.

This quantitative study takes a new approach to the study of syllabic verse, and shows that it can be used as a source of evidence for changing prosody.

SER/ESTAR and the View From the Left, a Change of Focus.

Martha G. Robinson (M.G.Robinson@ed.ac.uk)
University of Edinburgh

This paper investigates how syntactic semantic and pragmatic principles interact in the construal interpretation in the context of the Modern Spanish SER/ESTAR copular system within the framework of Dynamic Syntax (Kempson et al. 2001 and Cann et al. 2005). Most descriptive reference grammars describe the copular alternation as involving a semantic contrast between a temporary (or transient)/permanent interpretive opposition. Adjectives denoting permanent properties such as *inteligente* (intelligent) occur naturally with SER and the ones denoting temporary properties such as *borracho* (drunk) occur naturally with ESTAR. In more recent research these notions have been intertwined with the Individual/Stage-Level contrast (in the sense of Carlson 1977 and Kratzer 1988, 1995) where the Spanish copular alternation phenomenon in taken to be a lexical reflex of this distinction. Only Stage-Level predicates incorporate the Davidsonian e-argument (Davidson 1967). This semantic argument is then taken to be responsible for the temporary interpretation of ESTAR predications (Bosque 1990, Leonetti 1994, Escandrell-Vidal and Leonetti 2002, inter alia). However, what is seldom addressed in the literature is that both SER and ESTAR predications can also have the unexpected converse temporary and permanent interpretations, depending sometimes on the grammatical or communicative context as for example in below:

(1) Mi vida aquí es felíz.
Mi life here is happy.

One possible interpretation for (1) is that "in general my life might be unhappy, but my (temporary) one here (now) is a happy one". The permanent interpretation of the SER predication becomes neutralized by the addition of the deictic pronoun *aquí* which makes the whole situation salient in discourse and at the same time dependent to "now" (the moment of utterance). The relation to discourse saliency has already been suggested by Maienborn (2005, 2008) as pertaining to ESTAR as opposed to SER. However, as (1) already suggests, the copular alternation is riddled with syntactic, semantic and pragmatic paradoxes which show that the relation between them is not always clear cut and discrete. In this investigation we will focus on the relation the copular constructions have with their subjects.
Most research is concerned with the interpretive effects the copulas have on their respective predicates to their right, disregarding the fact that these also interact with the subject to the left:

(2) Los niños/*niños comen manzanas.
The children/children eat apples

(3) Los gatos son/están blancos.
Cats/the cats are white.

In (2) we find a representation of a more general Subject-Object asymmetry pertaining to Spanish which disallows bare plural and kind denoting subjective NPs (cf. Torrego 1989). As it stands the definite NP *los niños* is ambiguous between a generic and a specific reading and the communicative context will disambiguate its interpretation. However, for SER/ESTAR it is the grammatical context that disambiguates the structure. In contrast, in (3) the plural definite NP *Los gatos* with SER will receive a generic interpretation and with ESTAR the more specific and relating to the moment of speaking interpretation. In other words, the copulas not only enter into a parasitic relation with their predicates on the right as previous research suggests, but also with the subjective NP on the left establishing not a binary but a triple type of relation involving crucially the subject, the copulas and the predicates (irrespective of whether they are interpreted as Individual-Level or Stage-Level). In other words, the interpretive process is left-to-right incremental and it is not until all the words in the sentence have been parsed that the hearer arrives at the final interpretation for the proposition. This way of looking at the SER/ESTAR alternation then requires a shift in focus. Referential force, contextual and informational factors have been reported to be central to the characterization of nominal predicative structures (Leborans 1999) and it will be shown how adjectival predicative structures are equally sensitive to these processes.

Noun Class semantics in Gújjolaay Eegimaa.

Serge Sagna: serge.sagna@manchester.ac.uk/ gumugom@yahoo.fr
Department of languages, Linguistics and Culture, The University of Manchester

In noun class systems such as those found in the Niger-Congo phylum, for example in Bantu and Atlantic languages, all nouns belong to a class which is signalled by agreement on dependent elements and on the verb as shown in example 1 below (data from Gújjolaay Eegimaa).

1	*fu-nah*	*fafu*	*fi-çig-e*
	NC7a-day	CD7:DEF	CD7.3sg. -arrive-PFV
	'The day has come.' (ref: ss20090212-Obsv)		

Gújjolaay Eegimaa, an Atlantic-Niger Congo language spoken in the Basse-Casamance in Southern Senegal has 15 noun classes which have been identified by use of agreement criteria. This language has a crossed-noun class system, where the correspondence between singular and plural is not always on a one-to-one basis, but often a one-to-many and many-to-one. Whether the obligatory classification of nouns into classes has semantic motivations is a controversial issue in linguistics. Proponents of the semantic basis thesis (see Denny and Creider 1976, Contini-Morava 1997) propose, based on prototype theory, that noun classes are semantically structured like categories. Detractors of this theory (e.g. Richardson 1967, Amidu 1997) criticise the former's methodology and argue that noun class systems are to a large extent arbitrary. In this presentation I will show that the noun class system of Gújjolaay Eegimaa has semantic bases and that the underlying semantic motivations in this language include both universal (e.g physical properties such as shape) and culture-specific parameters. I will focus on the encoding of shape in the Gújjolaay Eegimaa noun class system, and on the culture-specific factors that motivate semantic classification of nouns which reflect the Gújjolaay Eegimaa people's natural, social and cultural environment, thus corroborating the claim that noun classes are categories and that class membership is very often based on prototypicality and family resemblance. For example, the crossings in singular and plural pairings have culture-specific motivation. Evidence comes from an analysis of Gújjolaay Eegimaa words from various semantic fields and noun classes, the integration of loanwords and experiments carried out using novel objects to investigate their classification in the language (See Sagna 2008). This study is coupled with a detailed investigation of the traditional knowledge of Gújjolaay Eegimaa people.

References

Amidu, Assibi A. 1997. *Classes in Kiswahili: a study of their forms and implications*: East African languages and dialects; v. 8. Köln: R. Köppe.

Contini-Morava, Ellen. 1997. Noun classification in Swahili: a cognitive-semantic analysis using a computer database. In *African languages at the crossroads: papers from Kwaluseni*, ed. R. K. Herbert, 599-628. Köln: Rüdiger Köppe.

Denny, J. Peter, and Creider, Chet A. 1976. The semantics of noun classes in Proto-Bantu. *Studies in African Linguistics* 7:1-30.

Richardson, Irvine. 1967. Linguistic evolution and Bantu noun class system. In *La classification nominale dans les Langues Négro-Africaines*, ed. Centre National de la Recherche Scientifique., 373-390. Paris: Centre National de la Recherche Scientifique.

Sagna, Serge. 2008. Formal and semantic properties of the Gújjolaay Eegimaa (A.k.a Banjal) nominal classification system. London: University of London- School of Oriental and African Studies: PhD dissertation.

Two types of tonal feet in Japanese

Yasushi Sato (yasusato@gen.meijigakuin.ac.jp)
Center for Liberal Arts, Meiji Gakuin University

The notion foot is currently well established in Japanese phonology. The bimoraic foot is the basic type, but in the Kagoshima dialect the foot seems to be bisyllabic. Further, all the dialects investigated in this paper suggest that there are two types of tonal feet in Japanese: namely, HL and LH feet.

The Miyakonozyo dialect and the Shimagawa dialect exemplify the so-called accentless dialect, but they are diametrically opposed to each other as far as accent assignment is concerned (*-ga* is an accentless subject marker):

(1) A. *The Miyakonozyo dialect*
a. hana (LH) hana-ga (LLH) 'flower or nose'
b. tamago (LLH) 'egg'

B. *The Shimagawa dialect*
a. ame-ga (HLL) 'rain or candy'
b. abunai (HLLL) 'dangerous'

The examples of (1A) show that an iambic foot (i.e., LH) can be associated with the right edge of the domain, while the examples of (1B) indicate that a trochaic foot (i.e., HL) can be associated with the left edge of the domain. In addition, all the morae that are left unassociated in the phonological component will acquire the default L tone in the phonetic component.

The Ogachogamitsu dialect consists of two classes of words, but only one class of words shown below is relevant for our present purposes:

(2) *The Ogachogamitsu dialect* (*–ŋa* is a variant of *-ga*, M stands for the mid tone)
a. ye HL ye-ga HL 'handle'
b. ame HL ame-ga LHL 'candy'
c. inaga LHL inaga-ŋa MLHL 'countryside'

It is clear that *ye*, a one-mora word, is associated with the HL accent, hence the contour tone. Thus it indicates that a trochaic foot (i.e., HL) is responsible for the accent pattern of the word. Further, the trochaic foot is repeatedly constructed from right to left, if there are two or more morae left unasscociated with a tone within the domain, and the initial H tone is reduced to a mid tone as in *inaga-ŋa* (MLHL). An unspecified mora in the phonological component will be associated with the default L tone later in the phonetic component.

Place names of the Tokyo dialect, as well as loanwords from English, also point to the existence of these two types of tonal feet. For example, *Hiroshima* (LHHH) shows the iambic foot associated with the left edge, spreading the H tone rightwards. By contrast, *Nagasaki* (LHLL) demonstrates that the trochaic foot is associated with the right edge, given that the last mora is extrametrical.

The Japanese pitch accent system has not been treated in terms of tonal feet in the past. However, if we recognize tonal feet in Japanese, the pitch

British Sign Language Corpus Project: Sociolinguistic variation in the 1 handshape in BSL conversations

Adam Schembri, Jordan Fenlon & Ramas Rentelis

a.schembri@ucl.ac.uk

Deafness Cognition and Language Research Centre, University College London

The British Sign Language Corpus Project is a three-year project (2008-2010) that will create a machine-readable digital video corpus of spontaneous and elicited British Sign Language (BSL) collected from Deaf native, near-native and early learner signers across the United Kingdom. In the field of sign language linguistics, it represents a unique combination of methodology from variationist sociolinguistics and corpus linguistics. The project is conducting quantitative studies of sociolinguistic variation and language change simultaneously with the creation of a corpus. The recruitment of participants is balanced for gender, region, age, and language background (i.e., native versus non-native signers) with at least 240 signers being filmed in 8 key regions across the UK: London, Bristol, Cardiff, Birmingham, Manchester, Newcastle, Glasgow and Belfast. Participant recruitment relies on Deaf community fieldworkers, using a network sampling technique. The data is limited in terms of situational varieties, focusing mainly on conversational and interview data, together with narratives and both lexical and grammatical elicitation tasks. Unlike previous large-scale sociolinguistic projects on American, Australian and New Zealand sign languages (Lucas, Bayley & Valli, 2001; Schembri, McKee, McKee, Johnston, Goswell & Pivac, in press), some of the dataset will be partly annotated and tagged using ELAN software, given metadata descriptions, and will be made accessible on-line. In this paper, we report some of the preliminary results from the first sociolinguistic study being undertaken. Our study examines variation in BSL signs produced with the 1 handshape (i.e., with a hand configuration involving the index finger extended from a fist, with the thumb and other fingers closed). Signs in this class exhibit variation in the 1 handshape, with, for example, the thumb and/or pinky finger sometimes being extended in addition to the index finger. We have preliminary results from 900 tokens of 1 handshape signs, collected from informal conversations involving 90 deaf signers in three cities: Glasgow, Birmingham and Bristol. Like a similar study into American Sign Language, our results indicate that variation in the 1 handshape is conditioned by both linguistic and social factors. Significant factors include the grammatical category of the sign, with function signs (and pronominal signs in particular) showing significantly more variation than content signs. The features of the preceding and following segments are also important, with our data showing evidence of both progressive and regressive assimilation. Lastly, we also have some indication that gender is a significant social factor, with female signers producing significantly fewer tokens with handshape variation than male signers. We discuss our findings in relation to previous work on phonological variation in American, Australian and New Zealand sign languages (Schembri, McKee, McKee, Johnston, Goswell & Pivac, in press; Lucas, Bayley & Valli, 2001). We will particularly focus on the results with regard to the relative importance of grammatical category versus lexical frequency, as well as on the role of the surrounding phonological environment as factors conditioning phonological variation in signed languages (Bayley & Lucas, 2005).

Bayley, R. & Lucas, C. (2005). Variation in ASL: The role of grammatical function. *Sign Language Studies* 6(1): 38-75.

Lucas, C., Bayley, R. & Valli, C. (2001). *Sociolinguistic Variation in American Sign Language.* Washington, DC: Gallaudet University Press.

Schembri, A., McKee, D., McKee, R., Johnston, T., Goswell, D. & Pivac, S. (in press). Phonological variation and change in Australian and New Zealand Sign Languages: The location variable. *Language Variation and Change* 21(2).

British Sign Language Grammaticality Judgement Task: Exploring age-of-acquisition effects in British deaf adults

Adam Schembri* (a.schembri@ucl.ac.uk), Eleni Orfanidou*^ (Eleni.Orfanidou.1@city.ac.uk) & Kearsy Cormier* (k.cormier@ucl.ac.uk)
*Deafness, Cognition & Language (DCAL) Research Centre, University College London
^Department of Language and Communication Science, City University, London

Language acquisition and transmission for signed languages such as British Sign Language (BSL) or American Sign Language (ASL) differs substantially from that of spoken languages. Approximately 5-10% of deaf children are born to deaf, signing families and thus acquire a sign language natively. However, the vast majority of deaf children (90-95%) are born to hearing families who typically do not sign (Mitchell & Karchmer, 2004). For these individuals, acquisition of a sign language may begin in early or late childhood, later in life, or not at all. Various studies have shown age of sign language acquisition effects at phonological, morphological and lexical levels (Emmorey, Bellugi, Friederici, & Horn, 1995; MacSweeney, Waters, Brammer, Woll, & Goswami, 2008; Mayberry & Fischer, 1989).

In this study, a sentence processing study originally conducted for ASL (Boudreault & Mayberry, 2006) has been replicated for BSL, with the aim of investigating age of sign language acquisition effects on grammaticality judgement. The original stimulus items, based on those from Boudreault & Mayberry (2006), included 168 grammatical and ungrammatical examples of 6 BSL syntactic constructions: simple declaratives, negated declaratives, interrogatives with a wh-question sign, as well as clauses containing agreement verbs, relative clauses and classifier constructions, all presented on video by a deaf native BSL signer. This set was piloted with a group of three deaf native BSL signers. Stimulus items which were not judged by all three signers as clearly grammatical or ungrammatical were discarded, resulting in a set of 120 sentences for the BSL Grammaticality Judgement Task.

Participants in the study were 20 deaf adults who were first exposed to BSL between birth and the age of 13 years. Accuracy and response times were both measured. Here we present preliminary results suggesting that accuracy of grammaticality judgement decreases as age of first exposure to BSL increases. Overall, all signers were less accurate and slower to respond to ungrammatical versus grammatical items, although this was less true of the native signers when compared to the non-native group. These results suggest that age of acquisition of BSL does affect grammatical competence as measured by grammaticality judgements, confirming similar findings for ASL (Boudreault & Mayberry, 2006).

These results also suggest that the BSL Grammaticality Judgement Task may be an effective tool for measuring syntactic knowledge of BSL. This is consistent with recent trends by theoretical syntactians who are using psycholinguistic methodologies instead of, or in addition to, more traditional intuitive and/or informal grammaticality judgements (e.g., Myers, 2009).

Language and thought: What should we tell the children?

Barbara C. Scholz and Geoffrey K. Pullum (*University of Edinburgh*)

Introductory undergraduate courses on linguistics seldom omit the topic of the relations between language and thought. The topic fascinates students, and the general public too. Yet it is surely not respectable to go on teaching the familiar but confused amalgam of metaphysical intuitions and traveller's tales that is all to easily picked up from a quick browse of Whorf (Eskimo snow words, Hopi physics, and so on). In its weaker forms, vulgar Whorfianism says merely that language influences thought in some ways, which is surely true but trivial; and in its strong forms it tends toward the irresolvable: if language determines thought so profoundly that some thoughts are totally inaccessible to me because of my native language, you will never be able to explain that to me, and I can never know what I'm missing.

A fully rigorous presentation of the relations between language, thought, and culture would demand a serious interdisciplinary postgraduate course, incorporating deep issues in philosophy, anthropology, psycholinguistics, phonology, morphology, syntax, semantics, and translation. We argue that it would need to distinguish linguistic relativity in its metaphysical version (the claim that what there is depends on what your native language is) from two epistemological versions of linguistic relativity, between which Whorf and Sapir vacillated. One is **holistic**: it claims thought is holistically dependent on language and culture. This is not an empirical hypothesis at all. It appears to make fully correct literal translation impossible, since different languages encode information differently. The **atomistic** version, by contrast, is a general empirical conjecture about the influence of linguistic categories on perceptual capacities or other cognitive processes. It suggests particular research questions, like whether reaction times on discrimination tasks will be affected by the basic colour vocabulary of the native language of experimental subjects. A proper untangling of the issues, informed by the huge relevant literature, would have to cover more than a hundred years of intellectual history and a large number of difficult papers in linguistics, philosophy, anthropology, sociolinguistics, psychology, psycholinguistics, and other fields as well. This is strong meat for Ling 1A.

So what can be done that is meets the condition of being both intellectually responsible yet educationally feasible? We argue that linguistics courses should attempt at least three things.

1. Delexicalize the discussion. Persuade students to jettison the layperson's collapsing of languages with their vocabularies. Languages are not just bags of words, and work on the interplay of language, thought and culture should not be limited to a consideration of what things different languages have words for.

2. Distinguish sharply between coherent, testable hypotheses about language and claims like ineffability. A semantic claim like "You cannot say *X* in language *L*" has two unpromising self-undermining features: if true, it is inexpressible in *L*; and although it may be expressible in some other language, speakers of that language will never be able to explain to speakers of *L* what has been said about them. This may be a coherent logical possibility, but surely the topic of inexpressible or untranslatable thoughts must lie, by definition, outside the purview of linguistics.

3. Clarify and refine the atomistic view and some of the broad range of testable empirical hypotheses that spring from it. Highlight issues about categorical perception and translation. These are issues that descriptive linguists and experimental psycholinguists can sensibly address.

OBJECT DROP AND COGNATE OBJECTS IN ANCIENT AND MODERN GREEK

Christina Sevdali
University of Ulster
c.sevdali@ulster.ac.uk, christina.sevdali@gmail.com

This paper focuses in the relationship between object drop and cognate objects in Ancient and Modern Greek (AG and MG respectively). In particular, I will compare the AG system to the MG one and discuss the observed change in the two systems. The reason why object drop is seen in relation to cognate objects is because, I want to argue that cognate objects can be viewed as the analogue of expletive subjects while object drop is the analogue of subject (*pro* or topic) drop, following partly Cheng & Sybeesma 1998. This paper will have something to say about the asymmetry between subjects and objects, noted previously in Cummings & Roberge 2004, whereby subjects are obligatory elements, satisfying the EPP, while objects are considered elements that are related to the lexical requirements of verbs.

AG has generalized definite and indefinite object drop, in addition to the availability of a wide variety of verbs taking a cognate object. Consider the following examples from AG:

(1) He: dikaiosune: lusitelei to:i echondi ∅
The justice-nom benefit-3 sg the having-dat
'Justice benefits the one that has it.' (Plato, *Republic*: 392.c)

(2) Dikazo: dike:n
Trial-1 sg trial-acc
'Decide, set a sentence'

MG on the other hand has only indefinite object drop, and cognate objects with very limited verbs. Example (3) below is an instance of MG indefinite object drop:

(3) Echo fai ∅
Have-1 sg eaten
'I have eaten (**something**)'

The questions that this paper will address are the following:

(a) Are these instances of object drop or VP ellipsis?
(b) What is the nature of the empty element in the object drop constructions, small *pro,* variables or something else?
(c) How have definite object drop constructions been replaced in MG?
(d) What is the relation with the pro-drop and the topic drop parameter: how does the typology of null subject, non-null subject and partial pro-drop languages translate to object drop?
(e) What is the best way to capture definite vs. indefinite object drop?

The prediction is that if languages are divided into those that have the null subject parameter set as positive, with optionally null subjects and no expletives (Greek, Italian etc), and to those that have it set as negative, with obligatorily overt subjects and expletives (English, Icelandic etc) then we should also expect to find the same split with objects: languages with object drop and without cognate objects and to languages without object drop and with cognate objects. This prediction is challenged from AG that has both object drop and productive cognate objects. I will also focus in the diachronic changes of Greek and I will argue that this change is related to the rise of the existence of pronominal clitics in the history of Greek that are now used in environments that used to have object drop. In this sense, I follow Dimitriadis 1994, who argues that object drop in MG is better analysed as *clitic drop*.

Measurement and Paths

Minjeong Son and Peter Svenonius, *CASTL, University of Tromsø*

In this paper, we discuss the interpretation of measure phrases in certain kinds of sentences containing prepositional phrases, and propose a syntactic analysis.

When locative or 'Place' expressions are modified by measure phrases, the measurement is normally of the distance between the Figure and the Ground; thus 'The tree is six feet behind the house' means that the Figure (the tree) is six feet away from the Ground (the house) in a direction away from the back of the house. (Cf. e.g. Talmy on Figure-Ground, Landau & Jackendoff on Path & Place, Zwarts for a formal model of measurement of projected spatial expressions.)

Motion events can also include measure expressions to measure the distance traversed; thus 'The horse walked ten feet' means that the horse performed a walking action which covered ten feet of distance from beginning to end. This can be combined with an overt Path description, e.g. 'The horse walked ten feet to the water trough' can mean that the horse walked for a distance of ten feet, arriving at the trough. (Cf. e.g. Koopman and den Dikken on measure expressions in both Path and Place phrases.)

However, 'to' expresses simply that a Path ends up at the location of the Ground, without giving any further Place specification. In contrast, prepositions like 'into' and 'over' give richer information; 'into' expresses that the Path ends in a container or enclosure, and 'over' expresses that some part of the Path is above the Ground (on one salient reading). Thus sentences like 'The horse walked into the stable' combine Path and Place information, and the same is arguably true for 'over' (if being above the Ground at a certain point in the extent of the Path is expressed in terms of Place)

In such cases, an overt measure phrase normally measures not the extent of the Path, but the distance from the Figure to a relevant portion of the Ground. 'The horse walked ten feet into the stable' cannot be used to describe a situation in which a horse traverses a ten foot long path, part of which is outside the stable, and ends up inside the stable; in other words the measure cannot measure the Path. Instead, it can only mean that the horse ended up ten feet from wherever it entered the stable.

The Path traversed may be longer than the distance expressed. Suppose someone started driving toward London from Edinburgh and, owing to mishaps, took six hours to travel the first 80 miles to the English border but then just one hour to drive the next 50 miles on English roads. In that situation, we could say 'He drove (only) 50 miles into England in seven hours' even though the whole distance traversed in seven hours was 130 miles. The measure expression measures just the distance 'into England,' i.e. the distance from the border with Scotland. Thus the situation could not be truthfully described by saying 'He drove 130 miles into England.'

Similarly, 'I threw the ball 20 feet over the fence' cannot be used to describe an event involving a 20-foot trajectory distributed on either side of the fence. Instead, the measurement is from the fence to the end of the ball's trajectory, compatible with the static description 'The ball is 20 feet over the fence.'

We propose an analysis based on a syntactic decomposition which maps to an isomorphic compositional semantics in a straightforward way; a Place projection is dominated by a Path projection in the syntax, and in the motion descriptions, the Path is further dominated by a verbal projection. 'To' indicates that the Path is a transition, but the measure expression must measure something with a spatial extent. If Place provides such an extent, then the measure phrase obligatorily restricts that. In the absence of such content, the measure expression measures the extent of the event as described by the motion verb (for 'He drove 400 miles to London (in seven hours)').

Historical asymmetric assimilations as evidence for privative |spread| in English

Marleen Spaargaren (M.J.Spaargaren@sms.ed.ac.uk)

Linguistics and English Language, University of Edinburgh

Two traditions have arisen from an ongoing debate concerning cross-linguistic laryngeal representations in series of obstruents. Tradition (i) assumes universally identical laryngeal representations: 'fortis' /p, t, k/ are unspecified and 'lenis' /b, d, g/ carry |voice|; this can be regarded as the 'standard' position and has recently been defended in part by Wetzels and Mascaró (2001). Tradition (ii) assumes underlyingly different representations between languages: 'aspiration languages' have unspecified lenis obstruents, and specify fortis obstruents for |spread|, while 'voice languages' have unspecified fortes obstruents, and specify lenes obstruents for |voice|. Evidence for tradition (ii) is drawn from surface facts such as the presence or absence of aspiration in fortis stops, the absence or presence of voicing in lenis stops and asymmetry in assimilation processes in favour of one of the features. Tradition (ii) has become known as the 'Laryngeal Realism' model of laryngeal representation.

In this paper, I follow Iverson & Salmons (1995, 2006), Harris (1994) and Honeybone (2005) in the assumption that English, in its Present-Day reference forms, is best described through the lens of Laryngeal Realism: synchronic surface facts like aspiration in, e.g. [p^{h}]*in,* absence of voicing in, e.g. [b̥]*in*, and exclusive assimilation to what is traditionally called 'voicelessness', e.g. 'devoicing' of /-z/ and /-d/, e.g. *cats* /t+z/→[ts], *sacked* /k+d/→[kt] suggest a phonologically active feature |spread|. Moreover, and crucially, I present new historical evidence which shows that the laryngeal situation just described for English dates back to the very beginning of its recorded history and can be shown to have persisted throughout its development. In doing so, I show that historical data can provide compelling evidence for current theoretical frameworks, and that current frameworks can shed an interesting light on historical data.

Crucial evidence for the position taken in this paper comes from laryngeal assimilation data, which show exclusive assimilation to 'fortisness' throughout the history of English, as in pre-Old English (pOE) /pd/ > /pt/ *cēpte* 'kept', /td/ > /tt/ *mētte* 'met', /kd/ > /kt/ *īecte* 'increased', /fd/ > /ft/ *pyfte* 'puffed', /sd/ > /st/ *cyste* 'kissed'. I present a new investigation of the pOE data, which goes beyond their description in the standard repositories of information on the history of English (e.g., Luick (1964), Hogg (1992), Campbell (1959)). This investigation shows that all assimilation in pOE can, with a large degree of certainty, be argued to have exhibited asymmetry in favour of fortisness. Under Laryngeal Realism, we can explain this asymmetry: it is the only type of assimilation which can occur as only |spread| is active in the phonology of the language. The standard position of tradition (i) cannot explain this asymmetry. Namely, if |voice| is assumed to be specified in the laryngeal phonology of the language, then it is expected to participate in phonological processes. Therefore, its inactivity is inexplicable in tradition (i) frameworks. This suggests that Laryngeal Realism offers the best analysis for both the synchronic and the diachronic facts of English.

The compositional dimension of derivation

Gregory Stump (gstump@uky.edu)
Department of English, University of Kentucky

The expression of a derivational category C is customarily equated with the application of a word-formation rule relating a base B of the appropriate sort to a derivative D, whose form differs from that of B in that it contains some formal mark of category C; for instance, the expression of the derivational category 'privative adjective' is equated with the application of a rule relating a noun B to an adjective B-*less*. In many cases, however, the expression of a derivational category C involves not only a rule R of this sort, but also an additional rule specifying how R is involved in the expression of C when the base is a compound. In instances in which the compound is headed, this additional rule generally requires the application of R to the compound's head, as in (1c):

(1) a. Derivational category C = personal noun
b. Where B = *physics*, C is expressed by a rule R such that R(*physics*) = *physicist*
c. Where B = the headed compound [*high-energy physics*], C is expressed as [*high-energy* R(*physics*)], i.e. as *high-energy physicist*

But an exocentric compound may also serve as a base of derivation. Thus, in Spanish, exocentric V-N compounds form their diminutive derivative through the diminutive marking of their second conjunct. In the examples in (2), the diminutive marking is clearly situated on the second conjunct rather than on the compound as an unanalysed whole: in (2a), the form *-ecito* taken by the diminutive suffix is an option for a monosyllabic base (such as *sol*) but not for a polysyllabic base (such as *quitasol*); and in (2b), the diminutive suffix *-ito* is internal to the second conjunct's plural morphology. From these examples, one might suppose that *high-energy physicist*, *quitasolecito* and *lavaplatitos* all fall under a single overarching generalization: that when a compound of whatever sort serves as a base of derivation, it is the second conjunct that undergoes the relevant derivational rule.

(2) a. *quita-sol* 'parasol' → *quitasolecito* b. *lava-platos* 'dishwasher' → *lavaplatitos*

This hypothesis, however, is dramatically disconfirmed by the evidence of ordinal derivation. A survey of ordinal derivation in over seventy languages reveals that when a compound cardinal numeral is the base of derivation, the expression of ordinal derivation is highly variable. In particular, the rule(s) of ordinal derivation usual for simplex numerals may apply:

(i) to the compound as an unanalysed whole (as in Kanuri [Nilo-Saharan] *kə́n-fíndin tilôn-mi* [ORD-20 1-ORD] '21st', whose ordinal morphology is a circumfix *kə́n-…-mi*);
(ii) to the final addend in the compound (English *twenty-first*);
(iii) to the initial addend (Anywa [Nilo-Saharan] *pàaJ-gī kúr cíɛ̀l* [10-ORD and 1] '11th');
(iv) to every addend (Portuguese *milésimo quingentésimo sexagésimo sexto* [1000.ORD 500.ORD 60.ORD 6.ORD] '1,566th'); or
(v) to a final subset of addends (Polish *dwa tysiące trzysta pięćdziesiąty drugi* [2 1000 300 50.ORD 2.ORD] '2352nd').

While the compositional expression of ordinal derivation varies cross-linguistically, it nevertheless appears that ***within each language, there is a single compositional principle valid for all compound ordinals***. Apparent counterexamples (e.g. those in (3)) can be reconciled with this conclusion by careful reference to their internal structure or by drawing upon the independently motivated notion that a lexeme may possess distinct absolute and conjunct forms.

(3) a. Welsh *pymthegfed* [5.10.ORD] '15th' and *unfed ar bymtheg* [1.ORD on 5.10] '16th'
b. Palauan [Austronesian] *ongeţeruich mę a ta* [10.ORD and 1] '11th' and *ongeţeruich mę a ongeru* [10.ORD and 2.ORD] '12th'

Syntax/Pragmatics Interface in Post-Gricean Theories of Utterance Meaning: Theoretical and Experimental Aspects

Anna Sysoeva, University of Cambridge, avs29@cam.ac.uk

Themed session 'Utterance Interpretation: Experimental and Theoretical Aspects'

The main aim of the talk is to question the traditional understanding of the syntax/pragmatics interface in a theory of utterance interpretation. Most post-Gricean theories of meaning are subject to one important objection, namely, that truth conditions are associated with the unit that is directly related to the syntactic representation of the uttered sentence. This reliance on the logical form seems to be inherited from the Davidson-Montague tradition in which truth conditions are equated with the domain of grammar. I demonstrate that treating the (developed) logical form as the object of truth-conditional analysis leads to a number of problems for a cognitively plausible theory of utterance meaning. Firstly, on this approach, truth conditions cease to be merely a tool for representing meaning and begin to determine the distribution of levels of meaning and processes in pragmatic theory. I argue that such a modification of role of truth conditions in a theory of meaning is not desirable. Secondly, predicating truth conditions of the (developed) logical form creates an artificial level which functions as a starting point from which the main intended meaning is derived. This does not always correctly represent how utterance interpretation proceeds. Moreover, it leads to the postulation of unnecessary levels of meaning with processing information being attached to these artificially distinguished levels. Thirdly, there is no motivation for the requirement that the truth-conditional representation should only develop the logical form, but not override it. This is not easily reconcilable with the evidence that utterance processing is incremental. Thus, postulating an artificial truth-conditional representation of the (developed) logical form is an obstacle on the way to cognitive plausibility of pragmatic theory. I argue that if truth conditions are to be preserved in a theory of meaning, they have to be predicated of the output of processing, the main unit of communication, as in Jaszczolt (2005).

I support this view by evidence from my own experiments testing to what degree the cognitively salient meaning recovered by people has to be associated with the output of syntax. The results show that the most salient interpretation of an utterance does not have to be constrained by the structure of the uttered sentence as regards both propositional content and illocutionary force. This is true for speakers belonging to cultures differing considerably in directness: British and Russian. On average, 62% of interpretations given by British people and 71% of interpretations given by Russian people are represented by propositions functionally independent from the logical form of the uttered sentence. Because the main intended meaning as recognised by respondents does not have to be constrained syntactically, the main object of truth-conditional analysis in a cognitively plausible pragmatic theory should also not be constrained syntactically.

I also assess the possibility of further reducing the role of the output of grammar in a theory of meaning along the lines of full contextualism in the form of Meaning Eliminativism (ME) (Recanati 2004). Post-Gricean frameworks presuppose the existence of semantically given word meanings that enter into utterance interpretation. According to ME, word meanings are constructed in context on each particular occasion of use on the basis of contextual senses which the word or expression had on previous occasions of use. One advantage of this approach is that eliminating encoded meaning would allow us to further reduce the postulation of unnecessary levels and processes of meaning modulation in pragmatic theory. However, accepting ME makes it difficult to account for generalisations and to make clear distinctions between sources of information contributing to utterance meaning.

References

Jaszczolt, K.M. (2005) *Default Semantics: Foundations of a Compositional Theory of Acts of Communication.* Oxford: Oxford University Press.

Recanati, F. (2004) *Literal Meaning.* Cambridge: Cambridge University Press.

Neutral Aspect: Another Optional Feature in the SENĆOŦEN Temporal Domain

Claire K. Turner (c.turner@surrey.ac.uk)
Surrey Morphology Group, University of Surrey

One interesting property of the Central Salish languages SENĆOŦEN (North Straits) and Halkomelem is that several familiar morphological features are optionally expressed, including tense, number, and diminutive (Montler 1986; Wiltschko 2003, 2008). For example, Wiltschko (2008) discusses *general number* (Corbett 2000: 9) in Halkomelem; although there is an overt means of indicating plurality, where it is not used a clause may refer to singular or plural subjects.

This paper argues that SENĆOŦEN viewpoint aspect is also optionally expressed: there is an overt imperfective (Montler 1986, Turner 2007, Kiyota 2008), but clauses with no overt aspect may be used as perfectives or imperfectives (1, 2). Thus, they are aspectually ambiguous; i.e., have general or *neutral* aspect (Smith 1997: 77). This claim contrasts with previous analyses for Salish languages, which argue that clauses with no overt aspect contain null perfective morphology (Kiyota 2008, Bar-el 2005).

A neutral aspect analysis is able to account for two of Kiyota's (2008) observations regarding SENĆOŦEN, which prompt him to propose that its situation types differ in their lexical semantics from those of other languages. First, accomplishments' culmination requirements may be cancelled in "perfective" (neutral) clauses (3). This paper argues that such clauses are not perfective, but exhibit the imperfective paradox; i.e., imperfectives do not entail event culmination (Dowty 1981). Second, telic and atelic situation types differ with respect to the tense/aspect of speakers' translations of out of context aspectless clauses into English: telic predicates are usually translated with past perfective and atelic predicates with present progressive. The same pattern has been found in other languages argued to have neutral aspect (Bohnemeyer & Swift 2003), such as Inuktitut (4), and it parallels telic-perfective correlations found in language acquisition studies (Shirai & Andersen 1995) and analyses of some Slavic languages (Bertinetto 2002, Filip 2008).

A claim for SENĆOŦEN neutral aspect is significant because it removes the need for non-universal definitions of situation types, and instead places SENĆOŦEN among the growing number of languages shown to have neutral aspect. However, if it is correct, then tense, aspect, and number are all morphologically optional in the language. Since there is also no mass/count or definiteness distinction in SENĆOŦEN, this paper highlights the importance of transitivity and agent control in grammaticizing aspectual information.

(1) **həli-sət** tθə čəči?kəṅ
come.to.life-REFL DET chicken
'The chick came/is coming to life.' (author's fieldwork)

(2) **nəqʷ** θə qeq
fall.asleep FEM.DET baby
'The baby fell asleep; The baby is sleeping.' (Turner 2007)

(3) ləʔə=sən=kʷəʔ **le-t** tsə latem ʔiʔ ʔawa=sən šəq-naxʷ
AUX=1SG.SBJ=INF **get.fixed-C.TR** DET table CONTIN NEG=1SG.SBJ finish-NC.TR
'I fixed the table, but I didn't finish it.' (Kiyota 2008: 59; gloss mine)

(4) a. ani-juq
go.out-PAR.3SG
'He/she went out.'

b. pisuk-juq
walk-PAR.3SG
'He/she is walking.'

(PAR=indicative particle) (Bohnemeyer & Swift 2003: 9)

Subject inversion in Bantu languages

Jenneke van der Wal (j.van.der.wal@hum.leidenuniv.nl)
Leiden University Centre for Linguistics

Southern Bantu languages have SVO as the canonical order, but VS order may be used in expletive constructions.. However, the syntactic and interpretational properties of the VS order fundamentally differ in some of these languages. I show that these differences in inversion constructions are accounted for by assuming different underlying structures.

Puzzle. The Bantu languages Sesotho, Makhuwa and Makwe are very similar in SVO order. All have a subject marker on the verb, which agrees in noun class with the preverbal subject (class 2 *ba-* in 1). In VS order, the subject marker agrees with the postverbal subject in Makhuwa (*ni-* agrees with *nlaikha* in 2), but with a default class 17 in Sesotho (*ho-* in 3).

(1) CJ *ba-shányáná* *bá-fepá* *li-pé:re*
2-boys 2SM-PRES.CJ.feed 10-horses
'the boys are feeding horses' Sesotho (Demuth 1990: 244)

(2) DJ *ni-hoó-wá* *n-láikha*
5SM-PERF.DJ-come 5-angel
'there came an angel' Makhuwa

(3) CJ *hó-tswalá* *lipó:li*
17SM-give.birth 10.goats
'there are goats giving birth' Sesotho (Demuth 1990:239)

Analysis. I argue that this difference in agreement is due to a difference in syntactic structure: in Sesotho the subject is *in situ* in the verb phrase, whereas in Makhuwa the subject has moved to specTP and there is remnant movement resulting in VS linear order.

Other evidence for this analysis comes from 1) the allowed valency of the verb [only intransitive or also transitive expletive], 2) the interpretation of the subject [only non-topical or also focal], and 3) the use of special verbal morphology indicating the interpretation of the element following the verb. This morphology forms pairs of conjugational categories named *conjoint* and *disjoint*.

Extra puzzle. Again, the three languages show a similar use of the conjoint (CJ) and disjoint (DJ) verb forms in SVO order, but they differ in VS order. Makhuwa uses the disjoint form (2), whereas Sesotho uses the conjoint verb form (3). Crucially, these facts do not necessarily correlate, as is clear from Makwe (4): the subject marker agrees with the postverbal subject (as in Makhuwa), but the form of the verb is conjoint (as in Sesotho).

(4) CJ *i-pya* *nyúumba*
9-burn 9.house
'the house is burning' Makwe (Devos 2004:315)

I propose to explain these data by reference to the status of the subject marker, which can be an incorporated pronoun or agreement marker. If the subject is indeed in different positions in these three languages, binding principle B allows us to draw conclusions about the status of the subject marker (pronominal in Sesotho, grammatical in Makhuwa and Makwe).

This talk examines the typological differences in subject inversion in three Bantu languages, proposes a syntactic analysis and uses data from syntax as well as information structure to argue for the analysis, thereby combining theory and (new) data.

Relics in word order change

w.a.m.van-der-wurff@ncl.ac.uk

Wim van der Wurff (SELLL, Newcastle University)

In studies of word order change, a great deal of attention is usually paid to issues of causation and implementation (Weinreich, Labov and Herzog 1968, Labov 1982). The aim then is to explain how and why a language can go from solely having word order X to also having some instances of order Y. Once Y has established a foothold, the usual reasoning goes, it is only a matter of time before it becomes the main variant and eventually displaces X entirely, perhaps through an S-curve mechanism or through elimination of one of the competing-grammar options (Kroch 1994, 2000).

However, from a theoretical as well as empirical perspective, there is something unsatisfying about word order change being regarded as only needing an initial push (leading to the appearance of the new word order), with the rest (generalisation of this new word order) following 'naturally' and inexorably. Examination of historical changes over a longer time period indeed frequently shows up intermediate micro-developments that cannot be considered simply natural or inevitable stages between beginning and end of the change. Thus, to give just one example, Stein (1986) and Warner (2007) show that the rise of periphrastic DO in English included a stage in Early Modern English where there was differential behaviour of weak and strong verbs, and Tieken-Boon van Ostade (1987) and Vargas (2005) show for this same change that there was differential behaviour in Late Modern English depending on semantic properties of the lexical verb.

In this paper, I will address an instance of this phenomenon in the change from preverbal to postverbal complement order. This change has taken place in both English and Romance. Interestingly, in both cases there were certain types of complements that showed a considerable time lag in their adoption of the new verb-complement order. In English, these relics were negative and quantified objects (van der Wurff 1998, Ingham 2001; Pintzuk and Taylor 2006); in Romance, they were objects of various types that carried specific pragmatic functions (Mackenzie 2008).

To explain such developments, I will propose a general theory of word order change in which not only the initial stage (the introduction of new word order Y) but also each subsequent stage in the diffusion of Y through the language is triggered by some discrete factor. Given the assumption that each stage conforms with the principles of UG, this idea is in fact forced. It then becomes the analyst's job to identify, for each distinguishable stage in a word order shift, the factor(s) that brought it about and the factors that re-shaped it into whatever stage followed it. In other words, the proposal will be to decompose the well-known idea that a grammar G1 changes into grammar G2 because of inter-generational differences in the primary input to language learners (Andersen 1973, Lightfoot 1979). Here, the implicit assumption is that G2 has all the relevant new properties or parameter settings. However, a more realistic representation of a change has a sequence of grammars, each of them differing minimally from the previous one. The differences and the factors responsible for them need to be established for each pair of adjacent grammars, in particular those showing evidence of relic constructions.

With regard to word order change in English and Romance, I will identify the relevant factors in English as 1. the tendency for negative and quantified objects in earlier English to be short and to represent largely given information; 2. the frequent failure in earlier English of remnant VP raising (Kayne 2001). The factors in Spanish, I shall argue, were connected with developments in the occurrence of *pro*-drop.

The coverb construction in Anindilyakwa: various cycles of complex verb formation

Marie-Elaine van Egmond (mvan0280@usyd.edu.au)
Department of Linguistics, University of Sydney

Besides verbs, many Northern Australian languages exhibit another verbal part of speech: that of coverbs. Coverbs are relatively undescribed in the literature. They differ from verbs in that they do not inflect, and they differ from nouns in that they are inherently predicational (e.g. Wilson 1999; Schultze-Berndt 2000; Amberber, Baker and Harvey 2007).[1] Coverbs require the presence of an inflecting verb, as in (1) from Jaminjung.

(1) *miri* ***bag*** *burra-**ma**-nyi* *gurrubardu-ni*
leg **break** 3pl>3sg-**hit**-IMPF boomerang-INSTR
'they used to break its leg with a boomerang' (Schultze-Berndt 2000:4)

The uninflecting word *bag* is a coverb meaning 'break'. The inflecting verb *ma* means 'hit' when used as an independent verb, but only has a generic meaning here and serves to carry the inflection. The main function of the coverb is to provide lexical meaning to the overall complex predicate. In many Australian languages, the coverb construction is very productive.

This study shows that in Anindilyakwa, a polysynthetic language of Northern Australia, coverbs behave differently, because they only occur in lexicalised compound verb stems:[2]

(2) a. *-larr-ada-* 'become light'; *-ngarr-ada-* 'have dry scaly skin'; *-aburangb-ada-* 'shine'; *-angb-ada-* 'shine, be painted'; *-kb-ada-* 'be/become dawn'; *-lyimb-ada-* 'be grey-haired'; *-j-ada-* 'appear'; *-min-da-* 'flash'; *-burri-da-* 'shake'
b. *-yukwa-mi-* 'ask'; *-edirre-mi-* 'deny'; *-rru-mi-* 'make noise'; *-kwurarr-mi-* 'spit'; *-warde-mi-* 'cry out'; *-nyirr-mi-* 'blow nose'; *-arrngaru-mi-* 'sneeze'

These verb stems consist of an inflecting element *-(a)da-* 'burn, shine' (2a), or *-mi-* 'say, do' (2b), plus an uninflecting element. The former also occur as independent verbs: *-dadi-* 'burn', *-(ya)mi-* 'do, say'. The meanings of the uninflecting elements are unclear, as they often only occur in these lexicalised compound stems. I will show that they are coverbs, based on the fact that verbs borrowed from English also occur in this position:[3]

(3) a. *-bey-in-da-* 'buy, pay'; *-rid-im-da* 'read'; *-baniju-min-da* 'punish'
b. *-beyi-rra-mi-* 'buy, sell'; *-buri-yami-* 'pray'

The fact that loan verbs require a separate inflecting verb suggests that the coverb construction still has some productivity. In addition, some independent verbs have grammaticalised to synchronically productive derivational suffixes that create verbs from nominals: the inchoative suffix *-di-* can be traced back to the verb *-di-* 'stand', and the factitive suffix *-ku-* stems from the verb *-ku-* 'give'. These inflecting elements also co-occur with coverbs in lexicalised compound stems.

In sum, complex verb stems in Anindilyakwa show different degrees of lexicalisation, ranging from very productive to totally frozen. This suggests that the language has gone through several cycles of complex verb formation, with different stages in this cycle reflected by the synchronically observable types.

---

[1] Coverbs occur under many names in descriptive grammars, such as *preverb*, *uninflecting element*, *verbal base*. The inflecting verbs are also called *auxiliary*, *generic verb*, *light verb*, *verbal classifier*, amongst others.
[2] The pronominal prefixes and the tense/aspect suffixes have been left out of these examples.
[3] The *-in-* ~ *-im-* element is a transitivizing morpheme, from English *him or *them.

System versus Syncretism: Verbal derivation and lability in Estonian

Virve Vihman (virve.vihman@ut.ee) & *Petar Kehayov* (petar.kehayov@ut.ee)
Institute of Estonian and General Linguistics, University of Tartu

This paper investigates the tension between preserving a transparent morphological system and filling functional holes in the system. Estonian, though rich in derivational morphology, is a disorderly sibling in the highly systematic family of Finno-Ugric languages. This is manifested in the considerable degree of formal syncretism in the inflectional and derivational systems of Estonian. We examine the interplay between verb derivation and lability, with the question of what factors have led to the emergence of labile verbs in a language with the morphological means to maintain a system where all valency alternations are overtly marked.

Here, we focus on two derivational affixes with effects on the transitivity of a verb, the deverbal causative or denominal factitive suffix *-ta* (e.g. *kasva**ta**ma* ‚raise, cultivate', *rühmi**ta**ma* ‚group', v. trans.) and the anticausative/inchoative suffix *-u* (*solv**u**ma* ‚take insult', *kukk**u**ma* ‚fall'), both of which are well represented in the verbal system (Kasik 2001, 1991). Although these affixes can be used productively, their derived verbs are most often lexicalised, and the function of the affixal element is no longer transparent.

This opacity is partially responsible for the availability in Estonian of a number of labile verbs, which do not mark any distinction between transitive and intransitive uses. Although 'lability' is considered to be weakly represented in Uralic (Letuchiy 2006: 253), Estonian has at least 80 labile verbs, used both transitively and intransitively with no overt morphology signalling the difference, including both patient-preserving (*praadima* ‚fry', tr./intr.) and agent-preserving lability (*jalutama* ‚walk', intr./tr., e.g. walk the dog). Interestingly, even verbs with overt causative or anticausative morphology can be labile, as in (1). In (1a) the verb derived with the suffix *-ta* is transitive, whereas in (1b) the same verb is used intransitively; (1b) also shows its anticausative counterpart, overtly marked with the *u*-affix.

(1) a) *Jüri* *ehmata-s* *Mari-t*
Jüri.NOM startle-PST.3SG Mari-PART
'Jüri startled Mari.'
b) *Mari ehmata-s* / *ehmu-s*
Mari startle-PST.3SG startle-PST.3SG
'Mari startled.'

This situation is puzzling, as a language with overt transitive/intransitive morphology would seem to have both the motive and the means to avoid lability. The causative and anticausative derivational affixes in the closely related Finnish, for instance, are monosemous, productive, and highly frequent, and consequently, very few labile verbs are attested in the language. In Estonian, however, most labile verbs are historical derivatives of the suffix *-ta*, which descends from several suffixes and is synchronically polysemous. We claim that the co-existence of lability with derivational morphology is primarily conditioned by the gaps in the lexical inventory resulting from the decreased productivity of causative/decausative derivation. The rise of labile verbs has also been supported by (a) the influence of German, which is rich in labile verbs, (b) the opacity of the causative affix in many derived verbs, and (c) the polysemy of that affix.

Relics in word order change

w.a.m.van-der-wurff@ncl.ac.uk
i.e.mackenzie@newcastle.ac.uk

Wim van der Wurff and Ian Mackenzie (CRiLLS, Newcastle University)

In studies of word order change, a great deal of attention is usually paid to issues of causation and implementation (Weinreich, Labov and Herzog 1968, Labov 1982). The aim then is to explain how and why a language can go from solely having word order X to also having some instances of order Y. Once Y has established a foothold, the usual reasoning goes, it is only a matter of time before it becomes the main variant and eventually displaces X entirely, perhaps through an S-curve mechanism or through elimination of one of the competing-grammar options (Kroch 1994, 2000).

However, from a theoretical as well as empirical perspective, there is something unsatisfying about word order change being regarded as only needing an initial push (leading to the appearance of the new word order), with the rest (generalisation of this new word order) following 'naturally' and inexorably. Examination of historical changes over a longer time period indeed frequently shows up intermediate micro-developments that cannot be considered simply natural or inevitable stages between beginning and end of the change. Thus, to give just one example, Stein (1986) and Warner (2007) show that the rise of periphrastic DO in English included a stage in Early Modern English where there was differential behaviour of weak and strong verbs, and Tieken-Boon van Ostade (1987) and Vargas (2005) show for this same change that there was differential behaviour in Late Modern English depending on semantic properties of the lexical verb.

In this paper, we will address an instance of this phenomenon in the change from preverbal to postverbal complement order. This change has taken place in both English and Romance. Interestingly, in both cases there were certain types of complements that showed a considerable time lag in their adoption of the new verb-complement order. In English, these relics were negative and quantified objects (van der Wurff 1998, Ingham 2001; Pintzuk and Taylor 2006); in Romance, they were objects of various types that carried specific pragmatic functions (Mackenzie 2008).

To explain such developments, we will propose a general theory of word order change in which not only the initial stage (the introduction of new word order Y) but also each subsequent stage in the diffusion of Y through the language is triggered by some discrete factor. In other words, the proposal will be to decompose the well-known idea that a grammar G1 changes into grammar G2 because of inter-generational differences in the primary input to language learners (Andersen 1973, Lightfoot 1979). Here, the implicit assumption is that G2 has all the relevant new properties or parameter settings. However, a more realistic representation of a change has a sequence of grammars, each of them differing minimally from the previous one. The differences and the factors responsible for them need to be established for each pair of adjacent grammars, in particular those showing evidence of relic constructions.

With regard to word order change in English and Romance, we will identify the relevant factors in English as 1. the tendency for negative and quantified objects in earlier English to be short and to represent largely given information; 2. the frequent failure in earlier English of remnant VP raising (Kayne 2001). The factors in Spanish, we shall argue, were connected with developments in the occurrence of *pro*-drop.

On the Nature of Clausal Phases: A Minimalist-Cartographic Perspective

Keisuke Yoshimoto and Andrew Radford
University of Essex

In this paper, we investigate the nature of CP phases from a cartographic perspective (cf. Rizzi 1997) and suggest that a clause constitutes a phase if it projects up to ForceP. Chomsky (1999) proposes that phases are propositional in nature and that transitive *v*Ps with complete argument structure and CPs are phases. He also notes that only complete clauses are phases, but not defective ones. This raises the obvious question of what means for a clause to be complete and hence phasal, and the goal of this paper is to answer this question by looking at the possibility of A-movement out of different kinds of embedded clause.

As shown in (1), heavy NP shift out of *that*-indicatives are not permitted in consequence of Ross's (1967) Right Roof Constraint (the heavy NP is moved from its original position marked as *t* to the matrix position right across the matrix adverbial).

(1) *[$_{CP1}$ I had been expecting [$_{CP2}$ that Britain would cede *t*] since 1939 *the Gibraltar and the surrounding territory*].

Similarly, heavy NP cannot be moved out of *for*-infinitives as shown in (2).

(2) *[$_{CP1}$ Mary has been intending [$_{CP2}$ for her daughter to give *t* to the library] for quite some time *her collection of the complete works of Shakespeare*].

On the other hand, heavy NP shift is generally allowed out of control infinitives as shown in (3) (cf. Postal 1974).

(3) [$_{CP1}$ I've tried [$_{CP2}$ PRO to find out *t* for certain] over many years *what happened to Ambrose Bierce*].

Although theoretical considerations do not require the category of control clauses to be CP now that the PRO theorem has been dispensed with, empirical evidence show that they are indeed CPs; this is because control infinitives can appear in the focus position of pseudo-clefts (Koster and May 1982), and they can be co-ordinated with a clause containing an overt complementizer as shown in (4) (Radford 2004) (contra the IP analysis of Bošković 1997, Murasugi and Saito 1994).

(4) I will arrange *to see a specialist* and *for my wife to see one at the same time*.

Furthermore, it would appear that heavy NP shift out of control infinitives is A-movement as shown by the binding contrast in (5) (Murasugi and Saito 1994, p.310).

(5) a.*[$_{CP1}$ Mary wanted [$_{CP2}$ PRO to meet [$_{NP}$ *the men who had been accused of the crime*]$_i$] until each other's$_i$ trials].

b.?[$_{CP1}$ Mary wanted [$_{CP2}$ PRO to meet *t*] until each other's$_i$ trials [$_{NP}$ *the men who had been accused of the crime*]$_i$].

This suggests that the heavy NP cannot transit through Spec-CP in order to circumvent the Phase Impenetrability Condition (Chomsky 1999) because this kind of movement would create a mixed A-A'-A chain, and that heavy NP shift is made possible if we assume that control infinitives do not form a phase.

If we look at infinitives more closely, however, we notice that heavy NP shift is not allowed out of wh-infinitives (hence when a clause contains an interrogative ForceP) as in (6).

(6)*[$_{CP1}$ Britain has been wondering [$_{CP2}$ whether PRO to cede to Spain *t*] since 1939 *Gibraltar and the surrounding territory*].

This contrasts with control infinitives like those in (5) in that they are simply irrealis and as such lack Force (we assume, following the structure proposed by Rizzi (1997), that they project up to FinP). Our assumption can be extended to a finite clause such as that in (7). The sentence in (7) cannot have a Force indicator *that*, and hence is not a phase, which is apparent from the fact that both the matrix and embedded T agree in number with the embedded object and attract the same *there* across a clause boundary.

(7) There do look like (*that) there are going to be problems.

Descriptive/ Metalinguistic Dichotomy?: New Taxonomy of Negation

Akiko YOSHIMURA (akikoy0926@gmail.com)
Department of Language and Culture, Nara Women's University

Horn (2001: 377) proposes a descriptive/metalinguistic dichotomy of negation: **descriptive negation** is truth-functional, focusing on propositional content and taking a proposition **p** into a proposition **not-p** (e.g. A pig doesn't fly), and **metalinguistic negation** is non-truth-functional, objecting to any aspects of an utterance except for its propositional content (e.g. Tom didn't trap two mongeese; he trapped two mongooses). This paper claims, based on Japanese data, that Horn's 'dichotomy' is not a real dichotomy but only corresponds to two types of many kinds of negation, and proposes that there are (at least) three properties that contribute to the taxonomy of negation. Following Wilson (2000), this paper regards all types of sentence negation with an explicit negative operator as metarepresentational.

The Japanese language is a verb-final language. A Japanese negative sentence is usually formed by adding *–na(i)* (≒English *not*) to the predicate at the end of the corresponding affirmative, as in (1) .
(1)a. Tom wa sushi o tabe-ru. (Tom eats sushi.) → b.Tom wa sushi o tabe **nai**. (Tom doesn't eat sushi.)
While it is hard for English to distinguish descriptive negation from metalinguistic negation based only on their forms, Japanese has another two types of negative operator marking external negation: *-node wa nai* and *-wakede wa nai*. Each of these three is sensitive to different aspects of negation.

–nai is used to describe situations as in (1b) and (5a) or reject invitations as in (2), but not to object to other utterances as in (3Ba), which means that *–nai* is sensitive to the non-objectionhood of the speaker's intention. *–node wa nai* is used for objection only when its embedded representation (= its preceding clause) is attributed to someone other than the speaker at the utterance point: (3Bb)/(4) is acceptable since its embedded 'Tom has two oxes'/ 'my mom cooked this' is attributed to A/ (probably) the speaker's father, but (5b) is not since its embedded 'a pig flies' is an abstract representation that is not attributed to anyone. It follows from this that *–node wa nai* is sensitive to the attributiveness of its embedded representation. *–wakede wa nai* is also used for objection but only when the target of the negation is the conceptual aspect of its embedded representation: (6B) is appropriate since the target of the negation is the conceptual aspect of the embedded clause ('want to stay'), but (3Bc) is not since the target is its morphology but not the conceptual aspect of A's preceding utterance. It can be said that *–wakede wa nai* is sensitive to the conceptuality of its embedded representation.

(2) A: Party isshoni ikou ne. (Let's go to the party together.) B: Watashi, ika-**nai**. (I won't.)
(3) A: Tom wa ox o 2-hiki katte-i-ru. (Tom has two oxes.)
B: Tom wa ox o 2-hiki katte {a.*i-**nai**/ b. iru-**node wa nai**/ c. *iru **-wakede wa nai**};
2-tou katte-i-ru n da. (It is not that Tom has 2 oxes; he has 2 oxen.) (※ *-hiki* /*–tou* : classifier)
(4) Kono ryori wa mama ga tsukutta-**node wa nai** no. Tomodachi-no mama ga stukutta no yo.
(lit. It is not that my mom cooked this. My friend's mother cooked it.)
(5) Buta wa {a. toba-**nai** (a pig doesn't fly) / b. *tobu-**node wa nai** (It is not that a pig flies)}.
(6) A (man): Why you won't come with me? Why do you want to stay (= nokori-tai) in Tokyo?
B (woman) : Tokyo ni nokori-tai-**wakede wa nai** no. I just can't go with you.
(It is not that I want to stay in Tokyo.)

Notice that none of these properly mark Horn's dichotomy: *-nai* marks not only description but rejection; *-node wa nai* marks not only metalinguistic negation (3Bb) but metaconceptual negation (4). In fact, no Japanese expressions properly correspond to either (or both) of them, which casts strong doubt on the universal status of Horn's dichotomy. The above observation also reveals three factors that contribute to the taxonomy of negation: a) the speaker's intention (objection-or-not), b) the nature of the embedded representation (attributive-or-not), and c) the characteristics of the target of negation (conceptual-or-not). [references] Horn (2001) *A Natural History of Negation*, CSLI/ Wilson (2000) 'Metarepresentation in Linguistic Communication,' In Sperber (ed.) *Metarepresentations*, Oxford.