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# STiL

## Studies in Linguistics

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Vol2, 2008

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# The CP of *clefts*

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## 1. Introduction

I have argued in recent work (Belletti 2008) that the CP of cleft sentences has some peculiar properties, the crucial ones being the following two:

- i. it is a reduced CP;
- ii. the reduced CP may or may not be endowed with an EPP feature.

In the pages that follow I would like to review the main arguments for i.-ii. in light of the different kinds of focalization that the two CP structures lead to in clefts. The main emphasis of the discussion here will be on the particular shape of the articulated CP projection in clefts. Throughout I will limit my attention to structures where the clefted constituent is a DP (or a PP), either a subject or a direct /indirect object.

## 2. The CP small clause

Consider the basic shape of the split CP projection. According to current analyses (Rizzi (1997), Benincà & Poletto (2004), Haegeman (2006), Bocci (2004) Grewendorf (2005), Miotto (2003), and related work), the Fin head is found at the bottom of the projection selecting the inflectional functional system of the following clause, while the Force head sits at the top of the projection expressing the illocutionary content of the clause, e.g. whether it is a declarative or an interrogative; the Force head is selected by the matrix verb when CP is embedded. Given this familiar background of assumptions, the question of the status of the CP of clefts naturally arises. Take the following two cleft sentences in (1) from Italian. I will use Italian throughout to illustrate different properties, unless other languages, in particular French, are needed to draw relevant distinctions.

- (1) a (subject cleft) E' Gianni che ha parlato  
it is Gianni that has spoken
- b (object cleft) E' Gianni che i ragazzi hanno salutato  
it is Gianni that the boys have greeted

Two main questions should be asked: i. where in the clause structure is the clefted constituent located? ii. Is the shape of the CP the same in the two cases?

Assume a vP periphery along the lines I have argued for in previous work (Belletti 2004, 2005); assume the classical hypothesis according to which the copula - *be* as a

# Preposed Object and Low Periphery in Mandarin Chinese\*

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In this paper I analyse the Low Periphery in Chinese, following the basic lines of Belletti (2001, 2004) and Paul (2005). Like Italian, I show that Chinese displays Topic and Focus projections within IP. I individuate two different Functional Projections occupied by two distinct elements: the bare preposed Object (between Subject and verb) and the sentence-internal *lian* “even”+XP. Moreover I show that both have moved with A-movement. Contrary to the traditional analysis (Ernst & Wang 1995; Shyu 1995, 2001 among others), I finally argue that the bare preposed Object is not a Focus, but a Topic-like element with a Focus stress and it can be analyzed as a Contrastive Topic.

## 1. Introduction

Belletti (2001, 2004) proposes that the architecture of the domain below IP and above VP is parallel to the clause-external Left Periphery, i.e. in the CP area (see also Poletto 2006). In this article I follow Paul (2005), who applies Belletti’s proposal to Mandarin Chinese, confirming the parallelism between CP and IP peripheries.

In the first part, I illustrate some tests to prove the existence of the Low Periphery in Chinese. In section 4, I study the two kinds of Object items that can occupy the position between Subject and Verb: the *lian* “even”+XP and the direct Object (without any additional marker) moved in a position between Subject and Verb. Following Shyu (1995, 2001), Ting (1995), Zhang (1996) a.o., I discuss the fact that the two preposed elements within IP are dislocated by A-movement (section 4.2). Furthermore, I will investigate the nature of the projections activated in the Low Periphery in Chinese. Leaving out the *lian...dou* construction, in the last part of the paper I analyze the SOV order. Contrary to the traditional analysis as a Focus item (Ernst & Wang 1995; Shyu 1995, 2001; Tsai 1994; Zhang 1996), I argue that it can be considered a Contrastive Topic, i.e. a syntactic Topic that can get contrastive stress, on the basis of its syntactic behavior and its pragmatic/semantic interpretation.

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\* I would like to thank Adriana Belletti, Pan Haihua, Waltraud Paul and the anonymous reviewers for their helpful comments and suggestions. All errors remain my responsibility.

# The Cartography of Syntactic Structures

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## 1. Introduction

Syntactic structures are complex objects, whose subtle properties have been highlighted and elucidated by half a century of formal syntactic studies, building on a much older tradition. Structures are interesting objects of their own, both in their internal constitution and in their interactions with various grammatical principles and processes. The cartography of syntactic structures is the line of research which addresses this topic: it is the attempt to draw maps as precise and detailed as possible of syntactic configurations. Broadly construed in this way, cartography is not an approach or a hypothesis: it is a research topic asking the question: what are the right structural maps for natural language syntax? Answers may differ, and very different maps may be, and have been, proposed, but the question as such inevitably arises as a legitimate and central question for syntactic theory. If it is a virtual truism that cartography can be construed as a topic and not as a framework, it is also the case that cartographic studies have often adopted certain methodological and heuristic guidelines, and also certain substantive hypotheses on the nature of syntactic structures, which form a coherent body of assumptions and a rather well-defined research direction; we will try to illustrate some ideas and results of this direction in the present chapter.

If structures have, in a sense, always been central in generative grammar, the idea of focusing on structural maps arose around the early nineties, following a track parallel to and interacting with the Minimalist Program. Perhaps the main triggering factor was the explosion of functional heads identified and implied in syntactic analyses in the first ten years of the Principles and Parameters framework. One critical step was the full-fledged extension of X-bar theory to the functional elements of the clause (Chomsky 1986) as a CP – IP – VP structure; and the observation that other configurations, e.g. nominal expressions, were amenable to a hierarchical structure with a lexical projection embedded within a functional structure (such as Abney's DP hypothesis, Abney 1987). These advances provided a natural format for the study of the structure of phrases and clauses as hierarchical sequences of the same building block, the fundamental X-bar schema (or, later, elementary applications of Merge); the lowest occurrence of the building block typically is the projection of a lexical category, e.g. a noun or a verb, and this element is typically completed by a series of

# Minimizers and quantifiers: a window on the development of negative markers

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Abstract: In this work we examine the diachronic development of two types of negative markers showing that their semantic evolution is similar, as they have both undergone a stage when they become monotone decreasing quantifiers. However, their position is different: the first type, called minimizers, are part of a complex DP, while the second is a bare quantifier. Their original syntactic position determines the final position where they are merged when they are reanalyzed as standard negative markers: the bare quantifier is located in a position dedicated to bare QPs, while minimizers move to a higher position in the low IP area.

## 1. Introduction

In her seminal work on negation in Italo-Romance, Zanuttini (1997) has shown that negative morphemes in Italo-Romance varieties can be subdivided into four main classes according to the position they occupy in the clause structure. These positions, labelled as Neg1, Neg2, etc. are represented in (1)

(1) [NegP 1 [TP 1 [NegP 2 [TP 2 [NegP 3 [Asp Perfective [ NegP 4 ]...]

Neg1 is the position of preverbal negations like standard Italian *non*; Neg2 and Neg3 are postverbal negations which are differentiated by the fact that the former (for instance Piedmontese *pa*) generally precedes Tense Anterior adverbs like ‘already’, while the latter (for instance Piedmontese *nen*) appears inside the field of aspectual adverbs (Cinque 1999).

- (2) a. A l’è pa gia andait a ca’. (Piedmontese, Zanuttini 1997, 70)  
SCL SCL is NEG already gone to home  
‘He has not already gone home.’  
b. \*?A l’è nen gia andait a ca’.  
SCL SCL is NEG already gone to home  
‘He has not already gone home.’

# Phases, Strong Islands, and Computational Nesting\*

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This paper is an attempt to recast the connectedness condition (Kayne 1983) in derivational terms: we will show that a Top-Down derivation is adequate to describe strong island conditions (as in Huang's original proposal), without losing the ability to discriminate among distinct phenomena (preverbal subject islandhood, complex-NP constraint, special properties of the first argument in double object constructions, intermediate status w.r.t. extraction/gapping, for right adjuncts), and predicting, moreover, the grammatical distribution of parasitic/licensed gaps in the derived structure.

## 1. Left branch islands and the connectedness effect

In this paper we reconsider the connectedness effect discussed by Kayne (1983), and illustrated in the examples (1)-(3). Kayne observed that in VO languages, left branch constituents are strong islands for extraction;<sup>1</sup> however, an illegitimate gap inside a left branch island can be rescued by another gap embedded in a lower right branch constituent. The examples in (1)-(2) illustrate preverbal subject islands, and (3) a small clause subject island: while in the (a) examples, extraction from the left-branch subject is impossible, in the (b) examples, the illegitimate gap is followed by a legitimate gap on a right branch and this creates a grammatical configuration.

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\* This paper is an expanded and revised version of the talk presented at the 28<sup>th</sup> Glow Colloquium (Geneva, March-April 2005). We wish to thank Adriana Belletti, Cedric Boeckx, Alec Marantz, Andrew Nevins, Luigi Rizzi, Uri Shlonsky and Michal Starke for discussion of the material presented in this paper, as well as the audiences at the 29<sup>th</sup> Penn Linguistic Colloquium (February 2005), the Harvard Grammatical Locality reading group and at the 28<sup>th</sup> Glow Colloquium (Geneva, March-April 2005).

<sup>1</sup> Throughout the paper, by “strong islands” we mean *nonselective* islands, which do not give rise to argument/adjunct asymmetries in extraction, as opposed to weak (Relativized Minimality) islands, which selectively affect the extraction of certain constituents: see Rizzi (1990, 1994, 2002). See Starke (2001) for an interesting attempt at unification of the islands phenomena which however does not account for connectedness effects.

# Number and Case in the comprehension of relative clauses: Evidence from Italian and Greek

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## 1. Introduction

Relative clauses have been extensively studied from several perspectives. Cross-linguistic research findings indicate a relatively consistent pattern of performance since they show that subject relatives are significantly easier to acquire and process than object relatives (Frauenfelder, Segui & Mehler 1980; King & Kutas 1995; Schriefers, Friederici & Kuehn 1995, among others). These findings have been interpreted in terms of the length of the dependencies required for subject and object relatives. As shown in the example below, the filler gap dependency in subject relatives is shorter than in object ones:

(1) a. The woman [who/that t is kissing the man] SUBJECT RC

b. The woman [who/that the man is kissing t] OBJECT RC

On the assumption that shorter dependencies are less demanding in processing (and are more economical in grammar, Chomsky, 1995) than longer dependencies, the parser is predicted to opt for the shorter dependency and thus to prefer subject relatives over the object ones in the first-pass parse. This preference is well known in the processing literature as the Minimal Chain Principle (MCP, De Vincenzi 1991) or the Active Filler hypothesis (Frazier and D'Arcais, 1989; Frazier & Clifton 1989). Thus, the parser should always start with a subject relative clause analysis, which is nevertheless abandoned when analysis of an object relative clause is required. In other words, the subject relative clause interpretation is the preferred interpretation and the object relative clause interpretation is obtained through reanalysis, which requires

# On the residual omission of Determiners in Italian L1: a case study

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This study deals with the acquisition of functional categories. Specifically, it focuses on determiner omissions in L1, a widespread phenomenon of early grammar which is subject to variation among languages (Chierchia et al., 1999; Guasti et al., 2004). We analyze here the spontaneous production of one Italian monolingual child. On the basis of the distribution of D in this language, we took into consideration semantic/syntactic properties of nominals that are crucial for the licensing of determiners in Italian. Results indicate that, during the period analyzed, D omission is a residual phenomenon more related to the structural configuration in which nominals occur rather than to other properties of Ns. In particular, an interesting selectivity emerges as for the non-target patterns are concerned: items involved in the high DP structures seem to play a crucial role in defining the conditions under which determiners are dropped in L1 grammar.

## 1. Introduction<sup>1</sup>

Previous research on early article omission, based on analysis both of spontaneous production and elicited production, has stressed the crucial role played either by prosodic constraints or syntactic constraints. On one hand, the former group of studies converges in explaining determiner omissions in terms of prosodic constraints on the output of the speech production system (Gerken, 1991 for English L1; Crisma and Tomasutti, 2000 for Italian L1). According to this hypothesis, there is a strict correlation between the prosodic properties of the element preceding or following the determiner and article omissions. On the other hand, the latter group of studies focuses on the correlation between the position occupied by nominals in the sentence and article omissions (Guasti et al., 2004 for Dutch and Italian, Caprin & Yoghà, 2006 for Italian). In particular, the sentence initial position appears to be more sensitive to determiner omission than the sentence internal one. Furthermore, a subject/object asymmetry as for the omission of determiner has been reported; children omit more

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<sup>1</sup> Previous versions of this work have been presented at Consortium for Linguistics in Taiwan (2007), Galana 3 (2008) and The Romance Turn 3 (2008). We thank the audiences for insightful comments and suggestions. We are particularly indebted to Adriana Belletti, Giuliano Bocci and Luigi Rizzi for discussions on this work. Usual disclaims apply.

# V1, V2 and criterial movement in Icelandic\*

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In this paper I argue that V1 and V2 orders are the outcome of criterial movement to the CP layer of, respectively, a null OP and an XP. Under the assumption that discourse-related properties are encoded in the CP, I propose a cartographic analysis of the mechanisms determining V1 and V2 orders in Icelandic. I show that the labels V2 and V1 are too generic and misleading because they cover constructions with different interpretive properties. On the one hand there are V2 orders found in declarative clauses, which can be distinguished into topic- or subject-initial. On the other hand, V1 orders are marked constructions, where the verb moves to a high position in CP and is preceded by a null OP with a scope-discourse related function. As a consequence, “pure” verb-initial constructions are not found in Icelandic, and, more generally, in Scandinavian. Nonetheless, it is syntactically visible that topic-initial declarative V2 and subject-initial V2 have different pragmatics with respect to what is commonly labelled as V1.

## 1. Introduction

A unitary account of the verb second (V2) phenomena must explain what is its underlying mechanism and how this is related to the imposition of interface conditions on syntax. Whether V2 is the result of V-to-I (specifically to the higher agreement projection in IP) in the so-called symmetric V2 languages (i.e. Insular Scandinavian and Yiddish) or the result of V-to-C movement both in main and subordinate clauses is still under debate.<sup>1</sup> Against the first of these two possibilities, proposed by Holmberg and Platzack (1995) a. o., Hróarsdóttir et al. (2007) provide an argument based on evidence from ECM clauses: “Since ECM infinitives lack the CP domain [...] but contain the IP domain of the clause [...], verb movement in these infinitives should be impossible in Icelandic [...]. This prediction is indeed borne out:[...]”

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<sup>1</sup> In the present work I do not address the recent account of V2 as remnant movement, developed by a group of researchers from the University of Tromsø.

# A Bilingual Treebank (ITA-LIS) suitable for Machine Translation: what Cartography and Minimalism teach us

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In this paper we describe some technical and theoretical aspects related to a manually aligned bilingual treebank Italian (ITA) – Italian Sign Language (LIS) provided with both constituency and dependency annotation (Siena University Treebank, SUT). We briefly discuss the linguistic rationale behind the feature set and the dependency/constituency structure we adopted. Moreover we discuss the tool we used to annotate, semi-automatically, the treebank that, in the end, will be evaluated qualitatively with respect to a specific Transfer-Based Machine Translation (TB-MT) task.

## 1. Introduction

The effectiveness of fine grained grammatical distinctions at morpho-syntactic and semantic level is especially relevant cross-linguistically: the discussion of the aligned, bilingual Treebank, Italian (ITA) - Italian Sign Language (LIS) presented in these pages aims to provide linguistically motivated answers to two main questions:

1. are standard tagsets (e.g. Eagles, Monachini 1995, Tamburini 2007) sufficiently rich to account for (quasi-)deterministic rearrangement of constituents in a Transfer-Based Machine Translation (TB-MT) task?
2. is the phrase structure predicted by current linguistic frameworks (e.g. Minimalism, Chomsky 1995-2005, and Cartography, Belletti 2004, Cinque 2002 and Rizzi 2004) coherent with pervasive corpus-attested syntactic constructions and suitable for massive transformations between two fairly different languages?

In the first part of this paper (§2) we present the structure and the format we adopted to annotate the treebank, briefly discussing the set of features we used to code functional (e.g. topic, focus) and non-manual aspects (e.g. facial expression, movement velocity); in the second part of this paper we justify some radical linguistic assumption (e.g. head-marked, mainly flat tree-structures) on the basis of recent advances of Minimalist and Cartographic approaches. We tried to implement a version of tree structure that productively suits, as efficiently as possible, a TB-MT task: this means that the translation process is based on a structural reordering/pruning