

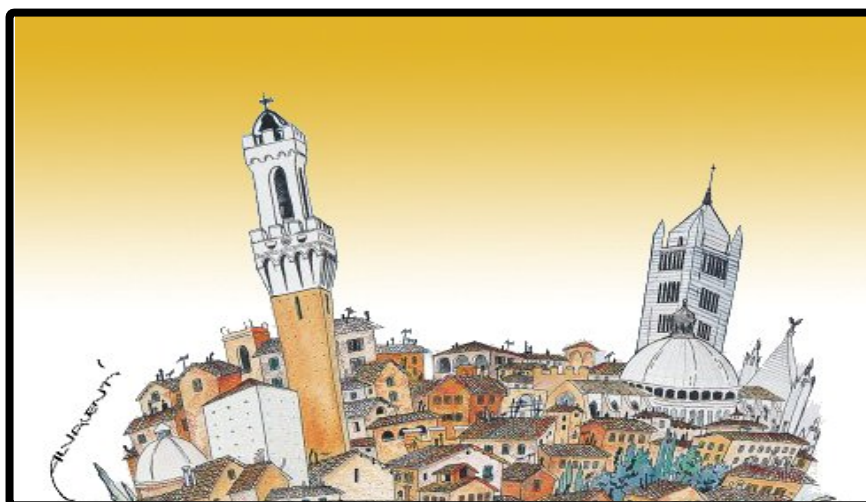
CISCL WP are now  
distributed by MIT.  
Please, check the website:  
<http://mitwpl.mit.edu/>

# STiL

## Studies in Linguistics

Proceedings XXXV Incontro di  
Grammatica Generativa

Vol 3.  
2009



**CISCL**

**CENTRO INTERDIPARTIMENTALE DI STUDI COGNITIVI SUL LINGUAGGIO**  
Interdepartmental Centre for Cognitive Studies on Language  
Facoltà di Lettere e Filosofia

UNIVERSITÀ DEGLI STUDI DI SIENA





# STiL

## Studies in Linguistics

Edited by:

Vincenzo Moscati  
Emilio Servidio

Correspondence can be addressed to:

CISCL – Centro Interdipartimentale di Studi Cognitivi sul Linguaggio  
Dipartimento di Scienze della Comunicazione  
Complesso S. Niccolò, Via Roma, 56  
I-53100 Siena, Italy

or by email at:  
moscati@unisi.it

## Contents

|   |     |
|---|-----|
| <i>Maria Teresa Guasti, Chiara Branchini, Fabrizio Arosio</i><br>Agreement in the production of Italian subject and object wh-questions                   | 6   |
| <i>Liliane Haegeman</i><br>The syntax of conditional clauses  | 28  |
| <i>Maria Rita Manzini &amp; Leonardo Savoia</i><br>Mesocclisis in the Imperative: Phonology, Morphology or Syntax?  | 51  |
| <i>Theresa Biberauer, Anders Holmberg &amp; Ian Roberts</i><br>Linearization and the Architecture of Grammar: A view from the Final-over-Final Constraint | 77  |
| <i>Gloria Cocchi</i><br>Bantu verbal extensions: a cartographic approach  | 90  |
| <i>Federica Cognola</i><br>TopicPs and Relativised Minimality in Mòcheno left periphery   | 104 |
| <i>Silvio Cruschina &amp; Eva-Maria Remberger</i><br>Focus Fronting in Sardinian and Sicilian   | 118 |
| <i>Maria Teresa Espinal &amp; Jaume Mateu</i><br>On bare nominals and argument structure  | 131 |
| <i>Irene Franco</i><br>Stylistic Fronting: a comparative analysis   | 144 |
| <i>Hanako Fujino</i><br>The Adnominal Form in Japanese as a Relativization Strategy   | 158 |
| <i>Ion Giurgea</i><br>Romanian null objects and gender  | 167 |
| <i>Guenther Grewendorf &amp; Cecilia Poletto</i><br>The hybrid complementizer system of Cimbrian  | 181 |
| <i>Alexander Grosu</i><br>Head-internal relatives in Japanese/Korean  | 195 |
| <i>Dalina Kallulli</i><br>Why and how to distinguish between <i>pro</i> and trace   | 206 |

|   |     |
|---|-----|
| <i>Daniele Panizza</i>  |     |
| The processing of N-words in Italian  | 219 |
| <i>Michelle Sheehan</i>   |     |
| Labelling, Multiple Spell-Out and the Final-over-Final Constraint   | 231 |
| <i>Elena Soare</i>  |     |
| Epistemic Modality in Romanian: the role of BE  | 244 |
| <i>Balázs Suranyi</i>   |     |
| Identificational Focusing: Focus Raising and Stress–Focus Correspondence  | 258 |
| <i>Francesca Volpato &amp; Flavia Adani</i>   |     |
| The subject/object relative clause asymmetry in Italian hearing-impaired children: evidence from a comprehension task | 269 |

# Agreement in the production of Italian subject and object wh-questions

MARIA TERESA GUASTI, CHIARA BRANCHINI,  
FABRIZIO AROSIO  
University of Milano-Bicocca

## 1. Introduction

A marked crosslinguistic preference for subject over object wh-questions emerges in a variety of populations. Adults read and process faster subject than object questions (e.g., De Vincenzi, 1991; Fiebach, Schlesewsky & Friederici, 2002; Frazier & Flores D'Arcais, 1989; Penolazzi, De Vincenzi, Angrilli & Job, 2005; Schlesewsky, Fanselow, Kliegl & Krems, 2000; see also Stowe, 1986 for contrasting findings). Similarly, adult agrammatic patients find subject questions easier to handle than object questions (Dickey, Choy, Thompson, 2007; Garaffa and Grillo, 2008; Neuhaus and Penke, 2008; Salis and Edwards, 2008). Children, generally, produce and comprehend subject questions earlier and better than object questions and for children affected by specific language impairments (SLI) object questions are more challenging than subject questions. Subject questions are more frequently produced than object questions in English (Stromswold 1995). In elicited production studies, children are more accurate on subject than on object questions from an early age (Ervin-Tripp, 1970). O'Grady (2005), citing Yoshinaga (1996), reports that English learners have no problem in producing subject *who* -questions by age 2 (100%) while they have many difficulties with object *who*-questions (8% of correct responses). It is only at age 4 that the production of object questions almost equals that of subject questions with respectively 80% and 89% of correct questions produced. Van der Lely and Battell (2003), by comparing the production of WH-questions in typically developing (TD) children and in children with SLI, also report a subject over object preference for *who* questions in 6 year old TD English-speaking children. These findings are extended to Greek by Stavrakaki (2006), who reports a very mild advantage in subject questions over object questions (subject *who* =100%; object *who* =92%; subject *which*=93%; object *which*=81%) by 4;1 years old Greek speaking children. Beyond production, also the comprehension of wh-questions is problematic and, in this case, the difficulty is modulated by the type of WH-element (Ervin Tripp, 1970; Tyack & Ingram, 1977). Avrutin (2000) found that 3;5 to 5;2 year old English-speaking children (mean age 4;3) comprehend object *which*-questions less well than subject *which*-questions (48% correct versus 86% correct responses), while such an asymmetry was not attested for *who*-questions (80% correct responses in both cases) (this last finding is also replicated by Hirsch and Hartman, 2006). More recently, similar results were found by Friedmann, Belletti & Rizzi (2009) with Hebrew-speaking children aged 3;7-4;10 years (mean age 4;3). These children scored significantly lower in the comprehension of object *which*-questions, 58%, than in that of

# The syntax of conditional clauses

LILIANE HAEGEMAN

Department of English, University of Ghent<sup>5</sup>  
Liliane.haegeman@UGent.be

This paper shows that the movement derivation of conditional clauses (Bhatt and Pancheva 2002, 2006, Arsenijević 2006, Lecarme 2008) allows us to account for the fact that Main Clause Phenomena are excluded in conditional clauses because this follows from intervention effects. Moreover, the cartographic implementation of the analysis proposed predicts the incompatibility of conditional clauses with the speaker oriented modal expressions as well as the fact that conditional clauses lack the low construal reading which is found in (some) temporal adverbial clauses (cf. Bhatt and Pancheva 2002, 2006). The paper thus reinterprets one of the potential objections against the movement account of conditional clauses into an argument in favour.

## 1. Introduction

By analogy with the proposals for the derivation of temporal clauses, some authors have proposed that conditional clauses be derived by leftward operator movement (Lycan 2001, Bhatt and Pancheva 2002, 2006, Arsenijević 2006). This paper provides supporting evidence for this analysis. On the one hand, the movement analysis of conditional clauses immediately accounts for the fact that Main Clause Phenomena are excluded in conditional clauses, whereas sentence initial circumstantial adjuncts are allowed. Moreover, the cartographic implementation of the analysis elaborated here also predicts that high modals (in the sense of Cinque 1999) are excluded in conditional clauses and that conditional clauses lack the low construal reading which is found in (some) temporal adverbial clauses. The latter point means that the paper removes one of the original obstacles for the movement account of conditional clauses.

The paper is organized as follows: Section 2 summarizes the arguments in favour of the hypothesis that temporal *when* clauses are derived by *wh*-movement of a temporal operator to the left periphery and argues that the adjunct-argument asymmetry with respect to fronting operations, discussed in Haegeman (2007, to appear a,b) offers further support for this analysis. Section 3 discusses the extension of the movement analysis to conditional clauses and discusses the lack of low construal readings, which has sometimes been taken as an argument against the movement derivation of conditional clauses. Section 4 discusses the absence of high modal expressions in conditional clauses, a phenomenon often noted in the literature, and

---

<sup>5</sup> This paper was part of the presentation at the 35<sup>th</sup> *Incontro di Grammatica Generativa* at the University of Siena and at the Department of Linguistics of the University of Venice. I thank the audience for their comments. Special thanks to Boban Arsenijević, Adriana Belletti, Guglielmo Cinque, Anna Cardinaletti, Alexander Grosu, Luigi Rizzi, Damien Laflaquière, Terje Lohndal, and Amelie Rocquet for comments. Obviously they are not responsible for the way I have used their comments. The research is being funded by FWO Flanders as part of the project 2009-Odysseus-Haegeman-G091409.

# Mesocclisis in the Imperative: Phonology, Morphology or Syntax?

M. RITA MANZINI, LEONARDO M. SAVOIA

Università di Firenze  
rmanzini@unifi.it - lsavoia@unifi.it

Mesocclisis in the imperative and parasitic plurals in Spanish are currently accounted for either at Morphological Structure (Halle and Marantz 1994) or at the PF interface (Harris and Halle 2005). In previous work (Manzini and Savoia 1999, 2004a, 2004b, 2005, 2007, 2008a, 2008b) we argued that these and similar phenomena in both Romance and Albanian are best accounted for at the syntactic level. Since sub-word constituency is involved, this amounts to saying that syntax subsumes morphology. Here we defend the conclusions of our previous work, including in particular a strictly lexicalist stance on the projection of morphosyntactic structures from the lexicon.

## 1. The analyses of Halle and Marantz (1994), Harris and Halle (2005)

Halle and Marantz (1994: 286) consider a mesocclisis phenomenon in Spanish varieties, whereby in imperatives a clitic cluster appears between a verb stem and its plural *-n* inflection, as in (1b). This contrasts with the simple enclitic pattern of standard Spanish in (1a).

- (1) a. de- n- me-lo  
give 2pl me it  
'Give it to me!'  
b. de- me-lo-n  
give-me-it -2pl

Halle and Marantz (1994) assume that the syntactic component generates structures of the type in (2a), where the clitic cluster, i.e. Det, is adjoined to the right of the constituent formed by the verb and its plural inflection. It is only in the morphological component that the clitic cluster 'adjoins to the terminal Agr node to which it is already structurally adjacent' (p. 285), yielding a structure of the type in (2b). To be more precise, given the Late Insertion hypothesis, what the syntactic and morphological rules manipulate are abstract feature clusters, which are represented in (2) by the corresponding terminals

- (2) a.  $[[_T \text{ de}]]$   $[_{Agr} \text{ n}]$   $[_{Det} \text{ me lo}]$   
b.  $[[_T \text{ de}]]$   $[[_{Det} \text{ me lo}]]$   $[_{Agr} \text{ n}]$

For Halle and Marantz (1994:287) 'the positioning of the pronominal clitics is driven by the need of the terminal nodes carrying person and case features

# Linearization and the Architecture of Grammar: A view from the Final-over-Final Constraint\*

THERESA BIBERAUER<sup>♠♥</sup>, ANDERS  
HOLMBERG<sup>♠</sup> & IAN ROBERTS<sup>♠</sup>

<sup>♠</sup>University of Cambridge, <sup>♥</sup>Stellenbosch University, <sup>♠</sup>Newcastle University  
mtb23@cam.ac.uk, Anders.Holmberg@ncl.ac.uk, igr20@cam.ac.uk

This paper addresses the issue of the locus of linearization information in the context of a minimalist grammar. Contrary to what is arguably the dominant view in minimalist theorizing today, it is argued that linearization information must in fact be specified Narrow Syntax-internally. The imperative underlying this conclusion is an empirical skewing in the domain of word-order variation, in terms of which head-initial structures associated with a given projection line may only be (harmonically) dominated by head-initial structures, while head-final structures may be dominated either by head-initial or head-final structures in the same context – the so-called *Final-over-Final Constraint* (FOFC). It is argued that attested FOFC effects suggest that linearization information is in fact encoded in such a way – namely, by harnessing an already-required movement diacritic in accordance with Relativized Minimality, arguably a third-factor-imposed principle – that its NS-internal presence does not violate the Strong Minimalist Thesis of Chomsky (2001 *et seq.*). We also consider the question syntactic categories and their formal status, against this background.

## 1. Introduction

This paper is primarily concerned with linear ordering and its locus in the architecture of grammar. During the GB era, syntactic structure was generally assumed to involve both hierarchy and fixed linear ordering, with the former falling out as the consequence of a principle of UG (X-bar theory) and the latter following from the setting of universally given parameters (e.g. the Head Parameter). In the context of Minimalism, by contrast, there presently appears to be a fairly strong consensus that linear ordering is only established at PF (cf. i.a. Berwick & Chomsky 2008, Boeckx 2008 and Richards 2009). Further, it is often asserted that the language faculty exhibits an “LF bias”, with the mapping

---

\* The research reported here is funded by AHRC Grant AH/E009239/1: “Structure and Linearization in Disharmonic Word Orders”. For valuable input on the ideas central to this paper we thank in particular Ángel Gallego, John Hawkins, Neil Myler, and Michelle Sheehan, and also the IGG35 and GLOW32 audiences. All usual disclaimers apply.

# Linearization and the Architecture of Grammar: A view from the Final-over-Final Constraint\*

THERESA BIBERAUER<sup>♠♥</sup>, ANDERS  
HOLMBERG<sup>♣</sup> & IAN ROBERTS<sup>♠</sup>

<sup>♠</sup>University of Cambridge, <sup>♥</sup>Stellenbosch University, <sup>♣</sup>Newcastle University  
mtb23@cam.ac.uk, Anders.Holmberg@ncl.ac.uk, igr20@cam.ac.uk

This paper addresses the issue of the locus of linearization information in the context of a minimalist grammar. Contrary to what is arguably the dominant view in minimalist theorizing today, it is argued that linearization information must in fact be specified Narrow Syntax-internally. The imperative underlying this conclusion is an empirical skewing in the domain of word-order variation, in terms of which head-initial structures associated with a given projection line may only be (harmonically) dominated by head-initial structures, while head-final structures may be dominated either by head-initial or head-final structures in the same context – the so-called *Final-over-Final Constraint* (FOFC). It is argued that attested FOFC effects suggest that linearization information is in fact encoded in such a way – namely, by harnessing an already-required movement diacritic in accordance with Relativized Minimality, arguably a third-factor-imposed principle – that its NS-internal presence does not violate the Strong Minimalist Thesis of Chomsky (2001 *et seq.*). We also consider the question syntactic categories and their formal status, against this background.

## 1. Introduction

This paper is primarily concerned with linear ordering and its locus in the architecture of grammar. During the GB era, syntactic structure was generally assumed to involve both hierarchy and fixed linear ordering, with the former falling out as the consequence of a principle of UG (X-bar theory) and the latter following from the setting of universally given parameters (e.g. the Head Parameter). In the context of Minimalism, by contrast, there presently appears to be a fairly strong consensus that linear ordering is only established at PF (cf. i.a. Berwick & Chomsky 2008, Boeckx 2008 and Richards 2009). Further, it is often asserted that the language faculty exhibits an “LF bias”, with the mapping

---

\* The research reported here is funded by AHRC Grant AH/E009239/1: “Structure and Linearization in Disharmonic Word Orders”. For valuable input on the ideas central to this paper we thank in particular Ángel Gallego, John Hawkins, Neil Myler, and Michelle Sheehan, and also the IGG35 and GLOW32 audiences. All usual disclaimers apply.

# **Bantu verbal extensions: a cartographic approach**

GLORIA COCCHI

Università di Urbino  
gloria.cocchi@uniurb.it

In this work I am going to discuss the nature, productivity and combinatory possibilities of verbal extensions in Bantu languages, considering some Tshiluba data. I will argue that this phenomenon is best accounted for within a cartographic approach to sentence structure.

Though verbal extensions are generally treated as a unitary phenomenon in the literature on Bantu, several important differences can be observed; hence I will argue that extensions should be divided into two main groups, ‘syntactic’ and ‘lexical’ extensions, and the latter into two sub-groups. I will assume that syntactic extensions are merged under specialized functional heads in the predicative domain, while truly lexical extensions are merged with the verb stem in the lexicon.

Finally, the analysis of the so-called ‘lexical-argumental’ extensions will lead to the assumption of a second vP projection immediately above VP, in whose head these extensions are merged. Therefore, the two phase heads,  $C^\circ$  and  $v^\circ$ , will exhibit a similar behaviour, in that they both consist of two separate heads, between which other functional projections are generated.

## **1. Introduction. Bantu verbal extensions**

Verbal extensions, namely suffixes placed between the stem and the final inflection of a verb, in order to “extend” the radical and form verbal derivatives, are a phenomenon that typically characterizes Bantu languages (cf. Alexandre 1981). However, the number, type and form of verbal extensions varies considerably among languages. For modern Tshiluba – one of the most conservative Bantu languages – I have highlighted eleven different suffixes (cf. Cocchi 1990, 2008), morphological variants aside<sup>1</sup>:

---

<sup>1</sup> In Table 1, some extensions exhibit different forms, which generally arise from the application of regular vowel and consonant harmony rules to the basic form. Thus [i] > [e], and [u] > [o], if the preceding syllable contains a middle vowel; analogously, [l] > [n] if the radical ends with a nasal sound (cf. Willems 1949). However, I have found no principled explanation for the alternation of voiceless and voiced palatal fricative consonant in the causative extension.

The reconstructed forms in Proto-Bantu are taken from Guthrie (1967-71).

# TopicPs and Relativised Minimality in Mòcheno left periphery

FEDERICA COGNOLA

University of Padua  
federica.cognola@unipd.it

In this work I will take into consideration the high left periphery of the Tyrolean dialect Mòcheno, showing that in this language, unexpectedly under the latest version of Relativised Minimality in terms of features (Rizzi 2004), Relativised Minimality effects are found between a topic and a focus, but not between a wh-element and a topic. In my work I will show that this asymmetry inside the Quantificational class is due to the structure of Mòcheno left periphery and should not be taken as evidence in favour of the need of a split inside the Quantificational class. Looking at the structure of the topic fields activated by operators in Mòcheno, I will propose that in this language Relativised Minimality effects between two XPs belonging to two different featural classes do not occur if two conditions are met: i) the two XPs belong to two different featural classes; ii) TopicPs dedicated to constituent categories (strictly ordered one with respect to the other) are available. In the last part of the work I will bring evidence in favour of the idea that also in Romance (Italian) TopicPs are strictly ordered, even if this is not immediately visible due to topic free order.

## 1. Introduction \*

In this paper I will propose, taking into consideration the left periphery of the Tyrolean dialect Mòcheno, that Relativised Minimality (RM) effects cannot be captured only in terms of features (Rizzi 2004) or subfeatures (Friedmann, Belletti and Rizzi 2009), but that belonging of the XPs to two different featural classes has to co-occur with a condition on the structure, namely the availability of TopicPs dedicated to constituent categories. This condition can only be met if the structure allows for multiple Topics.

In Mòcheno RM violations are found between a focus and a topic but not between a wh-element and a topic, which is unexpected under Rizzi's (2004) latest version of RM, according to which RM effects can arise only among XPs belonging to the same featural class, listed in (1).

- (1) a. **Argumental**: person, number, gender, case...
- b. **Quantificational**: wh-, neg, measure, focus...
- c. **Modifier**: evaluative, epistemic, Neg, frequentative...
- d. **Topic**

---

\* I would like to thank Paola Benincà and Cecilia Poletto for comments and discussion on several versions of this work. A special thank goes to my informant Leo Toller for his endless patience and to Chiara Zanini for discussion of several topics of this work.

# Focus Fronting in Sardinian and Sicilian

SILVIO CRUSCHINA<sup>♠</sup>, EVA-MARIA  
REMBERGER<sup>♣,1</sup>

<sup>♠</sup>University of Oxford, <sup>♣</sup>Universität Konstanz

silvio.cruschina@mod-langs.ox.ac.uk, eva.remberger@uni-konstanz.de

This paper analyses the common properties and differences in the interpretation as well as in the syntax of Sardinian and Sicilian Focus Fronting (FF) phenomena. In both varieties, FF is a syntactic device used to mark not only Contrastive Focus (CF), but also Informational Focus (IF). The fronted IF is often associated with a "special interpretation", such as a mirative value or *verum*. Fronting is not limited to DPs or PPs, but may also involve predicates. However, while Sardinian allows FF for all kinds of predicates, predicate fronting in Sicilian is only possible in copulative constructions, and marginally possible with infinitives. We claim that FF is always XP-fronting and that the difference between Sardinian and Sicilian emerges because in Sicilian the verbal predicate in the form of the active past participle is outside the VP and cannot thus be XP-fronted, whereas participles are always inside the VP in Sardinian.

## 1. Introduction

There seems to be general agreement that the interpretive effect associated with FF in Romance is contrast. According to this assumption, contrast is an essential requirement for FF in Italian and Spanish, and also in other Romance languages, where only CF can undergo FF (cf. Rizzi 1997, Frascarelli 2000, Belletti 2004, for Italian; Zubizarreta 1998, 1999, for Spanish; Motapanyane 1998, Alboiu 2002, for Romanian; Quer 2002 for Catalan).<sup>2</sup> IF must appear in a postverbal position, triggering subject-verb inversion when the subject is the focus constituent.

In the following examples, the context does not allow for a contrastive interpretation of the focus subject *Gianni* in (1)c' and the focus direct object *manzanas* in (2)c', since in these interrogative contexts only IF is appropriate:<sup>3</sup>

---

<sup>1</sup> Part of Eva-Maria Remberger's research presented in this paper has been supported by the DFG within the SFB 471 as well as by a Feodor-Lynen-Fellowship granted by the Alexander von Humboldt Foundation for a one year stay in Cambridge, which made this joint paper possible.

<sup>2</sup> For recent alternatives to this view, see Leonetti & Escandell Vidal (in press) for Spanish, as well as Brunetti (in press) and Cruschina (2008) for Italian.

<sup>3</sup> In all examples non-contrastive fronted elements are indicated in bold, and contrastive fronted elements are set in capital letters.

# On bare nominals and argument structure\*

M.TERESA ESPINAL & JAUME MATEU  
Centre de Lingüística Teòrica, Universitat Autònoma de Barcelona  
Teresa.Espinal@uab.cat, Jaume.Mateu@uab.cat

This paper aims at focusing on a set of phenomena related to the syntax and semantics of bare count nominals: bare count nominals (BNs) in argument position, BNs in predicate position, and the relationship between argument structure and the interpretation of bare nominals. The novelty of this paper is to relate the occurrence of bare nominals with the argument structure position in which they may occur at a syntactic level of representation.

## 1. Introduction

Although some authors such as Chierchia (1998) have claimed that BNs are not found in the Romance languages, ample data (cf. Schmitt and Munn 1999, Dobrovie-Sorin et al. 2006, among others) show that they are in fact a well-attested and productive phenomenon. However, there are some well-known puzzles that have to be solved on the distribution of BNs in Romance.

One of these puzzles, on which we will focus in this paper, is that not all argument structure positions allow BNs: internal object positions of unaccusative (1a) and causative transitive verbs (1b), as well as external subject positions (1c) are not appropriate recipients of BNs (cf. Suñer 1982). In Espinal & McNally (2007) it is hypothesized that BNs can only be found in unergative-like argument structures, as bare objects of verbs, a hypothesis that has been extended to existential *haver-hi* 'there be' sentences. See the contrasts between the Catalan examples in (1) and (2). The Spanish examples in (3) further illustrate the presence of BNs in object position of (birelational) prepositions (cf. Bosque 1996, Laca 1999).

- (1) CATALAN  
a. \*Va morir *nen*  
   PAST die child  
b. \*Hem tancat *finestra*  
   have closed window  
c. \*Gat *miola*  
   cat mews

---

\* This research has been funded by the following grants: HUM2006-13295-C02-01FILO, HUM2006-13295-C02-02FILO, HF2007-0039, and 2005SGR-00753.

# **Stylistic Fronting: a comparative analysis\***

**IRENE FRANCO**

Università di Siena - CISCL  
*irene.franco0318@gmail.com*

Stylistic Fronting (SF) is a syntactic phenomenon present in modern Insular Scandinavian languages, probably as a residue of Old Icelandic word order. Mainland Scandinavian languages have lost SF, but diachronic studies show that Old Scandinavian languages display SF (cf. Falk 1993, Trips 2003). SF is also found in Old Romance varieties, among which is Old Italian (cf. Benincà 2006). Despite the considerable number of proposals, SF has not received a satisfactory account. It is difficult to find a theory of SF compatible with the idea that the left periphery of the clause has general structural properties.

In section 1. I give a brief overview of the properties and distribution of SF in contemporary Icelandic. In section 2. I present some comparative data showing that the same phenomenon is attested in Old Italian. In section 3. I focus on the syntactic conditions licensing SF, and identify the target position of fronted items by observing the Old Italian SF distribution with respect to overt subjects. In section 4. the distribution of SF is observed with respect to CP expletives (cf. Poletto 2005) and enclisis/proclisis (cf. Benincà 1993). In section 5. I propose a unifying analysis of SF for Old Romance and Icelandic as a potential strategy to extract/drop the subject, based on an integrated synchronic/diachronic perspective and adopting a derivation of SF in terms of remnant movement to the CP (cf. Franco 2009).

## **1. SF in Icelandic**

SF is a quite common syntactic phenomenon in modern Icelandic. It is also found in Faroese, but in this case it is much less productive and preferred in the written language. Basically, SF is generated by a mechanism which fronts a lexical item to a preverbal position. The peculiarity of this operation is due to the fact that a considerably great variety of lexical categories can be fronted. Maling (1980; 1990), who first identified the phenomenon in Icelandic, proposes a hierarchy of frontable categories including phrasal adverbs and negation; and “items from the verbal complex” (verbal heads, particles; predicative adjective and nominal predicates). Holmberg (2000) argues that also

---

\* This paper is the outcome of my PhD study research at the University of Siena, in cooperation with the University of Venice and Háskóli Íslands and was presented at the XXXV IGG (2009) held in Siena, Italy. I wish to thank especially my main advisor, Luigi Rizzi; my co-advisor, Cecilia Poletto; my external advisor Höskuldur Thráinsson. I express my gratitude to the faculty members of Háskóli Íslands, especially Jóhannes Gísli Jónsson and Tólli Eythórsson; to the audience of the XXXV IGG; especially to Liliane Haegeman and Anna Cardinaletti for precious comments and feedbacks; to Federico Damonte; Vincenzo Moscati and Cecilia Falk.

# The Adnominal Form in Japanese as a Relativization Strategy

HANAKO FUJINO

Instituto Universitario de Investigación Ortega y Gasset,  
Universidad Pontificia Comillas de Madrid  
hfujino@gmail.com

This article focuses on two aspects of relative clauses in Japanese: its syntactic structure and the special form (“adnominal form”) that the embedded predicate must take. It has been assumed that Japanese relative clauses are base-generated and are D-IP structures (Murasugi 2000a,b). I will argue on the contrary that they are D-CP structures, that are derived by raising of the head. This argument is supported on three accounts: (i) a reconsideration of reconstruction effects with respect to the reflexive interpretation of *zibun*; (ii) the manifestation of the weak crossover phenomenon; (iii) the existence of sentential modifiers with CP elements. Then, I will show that Japanese has a requirement on sentential modifiers in general, namely that the embedded predicate must be in a special form called the “adnominal form”. On the basis of the Clausal Typing Hypothesis (Cheng 1991), I will propose that the role of the adnominal form (and the particle *no*) is to enable clausal typing of the embedded clause.\*

## 1. The base-generation analysis of relative clauses in Japanese

One of the major analyses of head-initial relative clauses is the raising analysis (Vergnaud 1974) revised by Kayne (1994), where the relative CP is assumed to be the complement of D:

- (1) [DP the [CP [NP picture] [that [IP Bill saw [e]]]]]

Relative clauses in Japanese differ from those in English in that they are head-final and lack complementizers and relative pronouns:

- (2) [Soko-ni \_ at-ta] jisho  
there-Loc be-Pst dictionary<sup>1</sup>  
'the dictionary that was there'

It has been claimed that they are not derived by raising of the head, because it is possible to extract an element from within the relative clause in violation of the Complex NP Constraint (CNPC, see Kuno 1973):

---

\* I am very grateful to Luigi Rizzi, Adriana Belletti, Valentina Bianchi, Cristiano Chesi, Vincenzo Moscati, and Masayuki Komachi for their insightful comments, help, and advice.

<sup>1</sup> A list of abbreviations used in this article is as follows: Nom=nominative, Acc=accusative, Dat=dative, Gen=genitive, Loc=locative, Obl=oblique, Pst=past, Comp=complementizer, Pt=particle, Top=topic, Int=interrogative, Adn=adnominal, Cnc=conclusive

# Romanian null objects and gender\*

ION GIURGEA

University of Constance & “Iorgu Iordan – Al. Rosetti” Institute of Linguistics,  
Bucharest

giurgeaion@yahoo.com, Ion.Giurcea@uni-konstanz.de

This paper argues that Romanian has anaphoric object *pro*, which is used for variables bound by a quantifier lacking gender and for propositional objects. It will be shown that the so-called “neuter pronouns” of Romanian and other Romance languages, which are used for referents that do not fall under a nominal concept, are genderless. This follows from the fact that natural gender in these languages is restricted to humans.

## 1. Introduction

In this paper I will argue for the existence of an anaphoric object *pro* in Romanian. The use of this pronoun is very restricted, which explains the fact that it has gone unnoticed until now, being misinterpreted, in some of its contexts, as a parasitic gap. This pronoun only appears if its antecedent lacks gender. Moreover, when referring to concrete objects, this pronoun must be in the same clause as its antecedent, although it does not require its antecedent to have undergone A-bar movement, like parasitic gaps do. I interpret this fact as showing that when referring to concrete objects, object *pro* can only denote a bound variable. This restriction may be represented syntactically by using Kratzer’s (1998) proposal that some instances of bound variable pronouns are bare indices which inherit their  $\phi$ -features via Agree. Besides this use, Romanian also uses null anaphors with verbs taking propositional objects, without any locality restriction. Since antecedents in this case are also genderless, being typically CPs, we are led to the generalization that Romanian has only genderless object null pronouns.

After presenting the evidence for anaphoric object *pro* in Romanian (section 2), I will argue for the existence of genderless pronouns in Romanian as well as other Romance languages (section 3), which represent the only way to refer to objects which do not fall under a nominal concept in a language in which natural gender is restricted to animates (masculine as a natural gender is “+human/animate”, feminine is “+human/animate +female”).

## 2. Null objects in Romanian

As known at least since Dobrovie-Sorin (1994), Romanian does not have arbitrary object *pro*. The correspondent of (1)a in Romanian is agrammatical<sup>1</sup>:

---

\* The research behind this article has been financed by the *Deutsche Forschungsgemeinschaft*, via the project *Bausteine romanischer Syntax*.

<sup>1</sup> The following abbreviations are used in this paper: 1,2,3 = 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> person, ACC = accusative, CL = clitic, DAT = dative, F = feminine, IMPER = imperative, INF = infinitive, M =

# The hybrid complementizer system of Cimbrian

GUENTHER GREWENDORF<sup>♣</sup>, CECILIA POLETTO<sup>♣</sup>

<sup>♣</sup>University of Frankfurt, <sup>♣</sup>University of Venice

In this work we examine the syntactic properties of two classes of complementizers in Luserna Cimbrian, an endangered language spoken in the Dolomites, and show that they occupy distinct positions. The first type of complementizer starts out in the Fin<sup>o</sup> position and moves up to Force<sup>o</sup> thereby blocking the whole CP which is not available for the verb to move. The second type is external to the clause itself, which can behave as a main clause as its CP is entirely empty. The tests we use to show that this distinction is necessary are: the position of clitics and of the sentential particle /da/, the position of the inflected verb with respect to the negative marker /net/ and to verbal prefixes, and the distribution of the CP expletive /'z/, which is the Cimbrian counterpart of standard German /es/. This analysis has consequences on the one hand on the layering of the CP area and on the other on the V2 properties of Cimbrian.

## 1. Introduction

In this work we take into account the complementizer system of Cimbrian, a German dialect with very peculiar grammatical features spoken in some Veneto and Trentino villages in North-Eastern Italy. Given that Cimbrian is an endangered language, and is already dying out in most of the villages where it used to be spoken, we will restrict our empirical domain to the variety of Luserna, the only one where Cimbrian is still actively spoken by the majority of the population.<sup>1</sup> The complementizer system of this variety immediately draws attention because it looks like a mixture of Germanic elements and Romance borrowing. Although borrowing of functional words is quite rare across languages, we show that in this case it has integrated into the syntactic system of the language, which has now two types of complementizers with different morphosyntactic properties. The article is organized as follows: In section 2 we present the double complementizer system of Cimbrian and show that one subtype of complementizers patterns with main clauses with respect to the position of separable prefixes, the position of the negative marker with respect to the verb, the position of object and subject clitics and the position of the particle *da*, while a second type of complementizers displays a different pattern. In section 3 we interpret the data and claim that the distinction between the two types of embedded clauses is due to the different position of the two

---

<sup>1</sup> We thank our informant Fiorenzo Nicolussi for his help and patience with the data and the audience of the IGG conference held in Siena (February 2009) for helpful comments. For the purpose of the Italian academy, Cecilia Poletto is responsible for section 1-2.2 and Guenther Grewendorf is responsible for sections 2.3-4.

# Head-internal relatives in Japanese/Korean

ALEXANDER GROSU

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

The internally headed relatives (IHRs) of Japanese and Korean belong to the general class of 'definite' relative constructions, whose CP was characterized in Grosu & Landman (1998) as denoting singleton predicates. Kim (2007), building on Hoshi (1995) and Shimoyama (1999, 2001), defines this CP as denoting a proposition that contains the antecedent of an E-type anaphor. It is argued in this paper that this approach, which undesirably enriches the class of definite relatives, also necessitates the imposition of highly unnatural restrictions on anaphora, which blur the distinction between pragmatics and grammar. The paper proposes an alternative analysis that avoids the conceptual and empirical objections faced by E-type approaches in general and by Kim's in particular, and assigns singleton status to Japanese/Korean IHRs in a straightforward and natural way.

## 1. Introductory remarks

The literature of the last thirty years or so has recognized the existence of a semantic type of relative clause construction that is distinct from the traditionally known restrictive and appositive types, and is characterized by necessarily definite (or, in certain cases, universal) force, to the exclusion of existential force. In this paper, I will refer to them as 'definite relative constructions', universal force not being relevant to what follows.

Definite relatives occur in a variety of syntactic garbs, in particular, as free relatives (Jacobson 1995), correlatives (Srivastav 1991), externally-headed relatives (Carlson 1977), and internally-headed relatives (Hoshi 1985); see Grosu (2002) for a survey of the relevant literature up to the time of its publication. Grosu & Landman (1998) proposed the interesting hypothesis that these syntactically diverse constructions can be brought under a unifying theoretical umbrella by analyzing the relative CP as a **singleton predicate**. On this view, definite relatives are closer to restrictives than to appositives, since just like the former, they denote predicates, rather than propositions, as the latter do. The feature which distinguishes definite from restrictive relative clauses is, according to Grosu & Landman, that the former, but not the latter, undergo a **semantic** (i.e., grammatical, not pragmatic!) process of maximalization, which maps a (possibly non-singleton) predicate to the singleton containing its maximal member, if there is one, and is undefined otherwise. This process was viewed by Grosu & Landman (op. cit., section 2.5) as being responsible for the necessarily definite semantics of these constructions<sup>1</sup>.

---

<sup>1</sup> Grosu & Landman's proposal was further spelled out in Grosu (2002, example (10b)), where it was suggested that the effect arises out of a pragmatic conflict between the uniqueness of the singleton's membership and the implicature of possible non-uniqueness associated with existential quantification.

# Why and how to distinguish between *pro* and trace\*

DALINA KALLULLI

University of Vienna  
dalina.kallulli@univie.ac.at

Starting from a well-known observation, namely that in a language like Hebrew there is no free alternation between traces and (overt) resumptive pronouns, this paper aims to demonstrate that even in languages with seemingly little or no resumption such as English, the distinction between a putatively null resumptive pronoun and trace is equally material. More specifically, I contend that positing a resumptive (i.e. bound variable) *pro* also in English-like languages is not only theoretically appealing for various reasons (a.o. ideas in Hornstein 1999, 2001, Boeckx & Hornstein 2003, 2004, Kratzer 2009), but also empirically adequate (as conjectured e.g. in Cinque 1990). The central claim of this paper however is that resumption is restricted to (sometimes concealed) relatives. Applying this proposal to languages like English, the distinction drawn between (resumptive or bound variable) *pro* and trace accounts for phenomena as diverse as lack of superiority effects, lack of weak crossover in appositives, lack of Principle C effects in relative clauses, and so-called ATB movement phenomena.

## 1. Introduction

Doron (1982) observed that in Hebrew, when a trace in a relative clause is c-commanded by a quantified expression, the sentence is ambiguous between a ‘single-individual’ and a ‘multiple-individual’ reading, as shown in (1), but if the trace position is filled by a resumptive pronoun, the multiple-individual interpretation is not available, as shown in (2).

- (1) ha-iSa            Se    kol    gever   hizmin            hodeta            lo  
the-woman    Op    every man   invited            thanked            to-him  
a. The woman every man invited thanked him (=y)  
b. For every man x, the woman that x invited thanked x
- (2) ha-iSa            Se    kol    gever   hizmin **ota**            hodeta            lo  
the-woman    Op    every man   invited her            thanked            to-him  
The woman every man invited thanked him (=y)

---

\* The research for this paper was supported by an APART-fellowship of the Austrian Academy of Sciences. Versions of it were presented at the DGfS 2008 workshop Local Modelling of Non-Local Dependencies in Syntax, at the Pre-EGG 2008 Budapest Syntax (Nano-)Workshop, at the workshop Theory of Grammar (36th Österreichische Linguistiktagung), and at the 35th Incontro di Grammatica Generativa. I thank the audiences at these events, as well as Clemens Mayr and Benjamin Spector for feedback. I am solely responsible for any errors.

# The processing of N-words in Italian.

DANIELE PANIZZA<sup>1</sup>

Università di Trento, DiSCoF Rovereto  
daniele.panizza@unitn.it

In this paper I investigate the processing of N(egative)-words such as *mai* (ever) in Italian, by means of the Event-Related Potentials methodology. N-words pose some questions about their syntactic and semantic behavior, such as: a) what principles underlie their distribution; b) which is the role of syntactic and semantic factors in determining their meaning; c) how the brain processes these linguistic items in grammatical and ungrammatical sentences. In the present work I will provide some theoretical and psychological argumentations to address these questions.

## 1. Introduction

The syntactic and semantic behavior of Negative Polarity Items (NPIs) and N(egative)-words (N-words) is currently under debate in the linguistic community (cf. Zeijlstra, 2008; Zanuttini, 1997; Chierchia, 2006). Roughly, NPIs are a class of words (quantifiers like *anyone*, adverbs like *ever* and predicates like *lift a finger*) that are licensed under the scope of negative operators. N-words, on the other hand, share a similar behavior with NPIs when they occur in negative contexts, but they behave like negative quantifiers, adverbs or predicates when they occur in positive contexts. The nature of the debate regards the mechanism underlying the licensing and the interpretation of these two types of linguistic items. In this work we will discuss some linguistic and experimental evidence in favor of the existence of common mechanisms at play during the processing of both N-words and NPIs. Further, we will argue for the hypothesis that N-words are in fact NPIs, with some additional properties such as the capacity of inserting a covert negation in the structure, which is responsible of their self-licensing. Finally, we will claim that this property is driven by a semantic mechanism geared to check the polarity of the local environment in which the N-word occurs, and we will provide some speculations about what sort of process it might look like.

---

<sup>1</sup> I would like to thank, first of all, the people collaborating with me in designing and conducting this study: Francesco Vespignani, Paolo Zandomenighi and Remo Job. This work also benefitted from the insightful suggestions of Gennaro Chierchia, Andrea Moro and Lyn Frazier. I'm also devoted to many other people who helped me in writing this paper and the presentation that I gave at the IGG35 conference, and conducting this experiment, such as Andrew Nevins, Maria Garraffa, Adriana Belletti, Jacopo Romoli, Daniele Didino, the ERP Lab in Rovereto and the IGG35 organizing committee, who assigned to this work the Marica De Vincenzi award.

# Labelling, Multiple Spell-Out and the Final-over-Final Constraint\*

MICHELLE SHEEHAN

Newcastle University  
Michelle.sheehan@ncl.ac.uk

This paper explores the relationship between labelling and Kayne's Linear Correspondence Axiom, arguing that the latter requires some version of the former. More specifically, a copy theory of labelling, compatible with inclusiveness, is proposed which renders phrase structure 'linearizable' via the LCA. This labelling mechanism, coupled with Uriagereka's (1999) Multiple Spell-Out, makes a number of interesting predictions about the properties of left-branches, which are shown to have empirical support. Most importantly, an apparently correct distinction is predicted to hold between underlying specifiers and derived specifiers, and more generally between head-final vs. head initial specifiers. These differences, it is proposed, serve to explain a number of seemingly unrelated facts: (i) the restrictions on extraction from derived specifiers in English, (ii) patterns of complement extraposition, (iii) the lack of CED effects in harmonically head-final languages, and (iv) the Final-over-Final Constraint (cf. Holmberg 2000).

## 1. Kayne's Linear Correspondence Axiom

Kayne's (1994) Linear Correspondence Axiom (LCA) proposes a direct correlation between hierarchical structure and linear order, often thought of in the following way:

- (1) Linear Correspondence Axiom (informal version)  
Asymmetric c-command maps to precedence.

This correlation is straightforward as long as a structure is uniformly right-branching (abstracting away from the bottom pair) as in (2a), however, structures such as those in (2b) present a non-trivial challenge for (1), because no total order is specified directly by the asymmetric c-command domains of terminal nodes:

---

\* Thanks to other members of the AHRC-funded project 'Structure and Linearization in Disharmonic Word Orders' (<http://research.ncl.ac.uk/linearization/>) for comments and stimulating discussions: Laura Bailey, Theresa Biberauer, Ángel Gallego (albeit briefly), Glenda Newton, Ian Roberts, Sten Vikner and especially Anders Holmberg. The ideas in this paper have also benefited from comments and critique from the audiences at LAGB (Essex), IGG (Siena), GLOW (Nantes) and at Newcastle, Cambridge and York Universities. All errors and omissions are my own.

# Epistemic Modality in Romanian: the role of BE

ELENA SOARE

University of Paris 8  
elena@linguist.jussieu.fr

This paper contributes to the view that the epistemic/root distinction in modals across languages relies on structural differences. I will address the behavior of Romanian modals in combination with perfective Aspect, in comparison with other Romance languages (French, Spanish and Italian). It is a well-known fact that Romance languages, inasmuch they distinguish between perfective and imperfective Aspect, have ambiguous modals in the perfective; they allow either the root or the epistemic reading. In Romanian the root, veridical reading is triggered with perfective on the Modal. I will claim that the explanation for that relies in the fact that Romanian Modals have bi-clausal structures. I will also address the conditions in which the epistemic readings can arise, and provide an explanation of their preference for embedded verbs (or Small Clauses) denoting stative situations, further developing the idea of a structural difference between the relevant readings. I will also propose a possible connection between epistemics and evidentials in Romanian.

## 1. Introduction

Romanian Modals – in particular CAN – and Romanian modal *presumptive* periphrases have properties that allow for a better understanding of syntactic mechanisms at work in epistemic readings.

### 1.1 Ambiguities of modal verbs relying on scope-reordering of Asp and Mood

It has been shown that cross-linguistically, perfective aspect affects the veridicality of the event, inducing an Actuality Entailment [AE] in languages that distinguish between perfective and imperfective Aspect (cf. Bhatt (1999), Condoravdi (2002), Demirdache & Urribe-Extbarria (2005), Laca (2005), Hacquard (2006), Borgonovo (2008)). Perfective modals allow for both epistemic and root readings, as illustrated in (1) for French.

(1) *Pierre a pu ouvrir la porte*

→It is possible that Pierre opened the door (OK if he didn't)

→Pierre managed to open the door (\*he didn't)

A contrast arises between Romanian and other Romance languages with respect to the optionality of AE in the context of perfective modals, cf. (2); Romanian forces the AE in those contexts.

# Identificational Focusing: Focus Raising and Stress–Focus Correspondence

BALÁZS SURÁNYI

Research Institute for Linguistics, Hungarian Academy of Sciences  
suranyi@nytud.hu

This paper revisits the division of labor in the grammar in identificational focus constructions in Hungarian. It is argued that if applied to identificational focus (rather than focus in general), Chomsky's (1971, 1976) proposal that focusing involves a syntactic readjustment operation analogous to Quantifier Raising can and should be upheld: identificational focus undergoes movement in order to be interpretable. Since identificational focus is a subcase of focus (defined as involving alternatives), the PF manifestation of identificational focus movement is affected by prosodic constraints on focus, including a Stress–Focus Correspondence requirement (Cinque 1993, Reinhart 1995). The interaction of this requirement with general principles of economy determines the realization of focus movements at PF. It is shown how the basic structure of the Hungarian clause, without a specialized functional head for focus, accommodates both the semantic and the prosodic needs of identificational focus elements in a variety of focus “constructions.”

## 1. Introduction

Chomsky (1971, 1976) proposed that focusing in English involves a covert syntactic readjustment operation analogous to Quantifier Raising (QR).<sup>\*</sup> This view was criticized by much subsequent work, for instance, on the grounds that such covert focus movement would apparently incur island violations (in English). *Overt* focus-related displacements, nevertheless, have often been given a syntactic movement account, even in those cases where the relevant displacement is not amenable to an analysis in terms of some independently existing construction, like a cleft (as in Hungarian, Basque, Italian, Greek, Finnish, etc). According to the current purely syntactic mainstream implementation of this approach, the displacement of a focus phrase targets a specialized functional projection (e.g., Rizzi 1997), and involves feature-checking. At present, in one form or another, this is the received view of focus movement in Hungarian too (e.g., Brody 1990, 1995, Puskás 1996, 2000, É. Kiss 1998, 2002, 2006, Horvath 2005, 2007, Kenesei 2009).

An alternative recent approach to overt focus-related displacements is purely stress-based (e.g., Zubizarreta 1998, Neeleman and Reinhart 1998). On this

---

<sup>\*</sup> For questions and comments I am grateful to audiences at the Workshop on Interface-based Approaches to Information Structure at UCL and at IGG-35 in Siena, where portions of this material were presented. The present work was supported by project grant #73537 of the Hungarian Scientific Research Fund, and partly by the author's Janos Bolyai Research Grant, which is hereby gratefully acknowledged.

# **The subject/object relative clause asymmetry in Italian hearing-impaired children: evidence from a comprehension task**

FRANCESCA VOLPATO<sup>♣</sup>, FLAVIA ADANI<sup>♠</sup>

<sup>♣</sup>Università Ca' Foscari di Venezia, <sup>♠</sup>Laboratoire de Sciences Cognitives et  
Psycholinguistique, EHESS/CNRS/DEC-ENS, Paris  
fravol@unive.it, flavia.adani@ens.fr

We investigated the comprehension of subject and object relative clauses in hearing-impaired (HI) children using a cochlear implant compared to that of hearing children, by using an agent selection task. We show that HI children performed significantly poorer than their typically-developing peers. Despite their low performance, HI children show nonetheless a typical gradient of difficulty, with subject relatives (OS) easier to comprehend than object relatives with preverbal subject (OO) and these latter are easier than object relatives with postverbal subject (OOp). These asymmetries are explained in terms of some recent minimalist proposals on locality theory and on the fragility of Agreement occurring with postverbal subjects. A correlation between performance on OOp and digit span tasks was found only in the HI group.

## **1. Introduction**

Relative clauses (RCs, henceforth) have been widely investigated in language acquisition and development, due to the complexity of their structure and to the presence of long-distance dependencies between sentence constituents. Much psycholinguistic research carried out on different populations across a number of head-first languages showed that subject RCs are usually easier to process and comprehend than object relatives. This response pattern was found in typically developing children (Guasti & Cardinaletti, 2003, Arosio et al., 2006, Utzeri, 2007, Adani, 2008); adults (De Vincenzi, 1990) for Italian; SLI children (Stavroulaki, 2001 for Greek, Friedmann & Novogrodzky, 2004 for Hebrew; Adani 2008, for Italian); aphasic patients (Garraffa & Grillo, 2007, Grillo, 2008).

However, to the best of our knowledge, this phenomenon has not yet been investigated with Italian hearing-impaired (HI, henceforth) children. Since acquisition in contexts of auditory deprivation is atypical and delayed (Taeschner et al., 1988, De Villiers 1988, Volterra & Bates, 1989, De Villiers et al., 1994, Tuller & Jakubowicz, 2004, Chesi, 2006, Delage, 2008), we decided to extend the study of RCs to HI children using a cochlear implant, in order to test whether their comprehension of RCs patterns with that of hearing children and, if not, in what way it differs.

In our experiment, we tested right-branching subject and object restrictive RCs, i.e. those where the embedded clause follows the main clause. We assume a raising analysis of relative clauses, in which the head raises from a position internal to the CP, forming a chain with the gap in the VP internal position (Vergnaud, 1985, Kayne, 1994). Subject and object relative clauses differ with respect to the position from which the head moves: as for subject