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## **Comparative Syntax: A generative study on *pro-drop***

Analogies between Modern Italian and Old High German as *NS languages*

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*“Language  
is a process of free creation;  
its laws and principles are fixed,  
but the manner in which the principles  
of generation are used  
is free and infinitely varied.  
Even the interpretation and use of words  
involves a process of free creation.”*

NOAM CHOMSKY

# Index

Abstract.....	I
Introduction.....	1
1. The <i>pro-drop</i> parameter: a general framework.....	5
1.1 Thematic <i>pro</i> .....	5
1.2 <i>Pro-drop</i> 's triggering factors: the two main hypotheses.....	9
1.3 Expletive <i>pro</i> .....	17
1.4 The concept of “null category” .....	20
2. <i>Pro-drop</i> in Italian.....	22
2.1 Null pronoun in the object position.....	22
2.2 A peculiar interpretation of <i>referential pro</i> : the <i>Aboutness-shift Topic</i> as a licenser.....	32
2.3 <i>Referential pro</i> in Old Italian.....	38
3. <i>Pro-drop</i> in German.....	41
3.1 Modern Standard German: traces of <i>pro</i> in a traditional <i>non-NS-language</i> .....	41
3.2 A Germanic <i>NS language</i> : Old High German.....	50
4. A comparison among <i>NS languages</i> .....	61
4.1 Former parallelisms: OI and OHG.....	61
4.2 Analogies beyond time: MI and OHG.....	64
Conclusions.....	71
Bibliography.....	73
Sitography.....	80

## Abstract

In der zweiten Hälfte des 20. Jahrhunderts wurde der linguistische Rahmen durch Noam Chomskys generative Grammatik-Konzeption geprägt. Die Sprachfähigkeit wird in Chomskys (1981) *Theory of Principles and Parameters* als Geisteszustand betrachtet, der von Prinzipien beherrscht wird, die dem menschlichen Geist innewohnen. Diese sind universell: Sie gehören jedem Menschen an und jeder Sprache der Welt. Neben Prinzipien, die allen Sprachen gemeinsam sind, tauchen Parameter auf, die als Veränderungsfaktoren unter Sprachen identifiziert werden.

Dies lässt die Feststellung zu, dass Prinzipien Teil des menschlichen Genbestands sind. Dagegen werden Parameter von jedem Menschen während des Spracherwerbs festgelegt. Ein Ergebnis der Parametereinstellung ist laut der Grammatiker die Subjektlosigkeit in Sätzen bzw. die Subjekterscheinung als Nullpronomen. Chomskys (1981) *Extended Projection Principle (EPP)* zufolge brauchen Sätze tatsächlich immer eine *Nominalphrase (NP)* in Subjektposition (in Spec, IP). Daraus folgt, dass das Subjekt immer syntaktisch vorhanden ist. Trotzdem kann es teilweise nicht offen realisiert sein.

Seit den 80er Jahren sind *Nullpronomina* ein sehr häufig behandeltes Thema der Generativen Grammatik. Traditionelle und zeitgenössische linguistische Untersuchungen widmen sich dem *Pro-Drop-Parameter* („pronoun-dropping“). Sprachen, die von *Pro-Drop* betroffen sind, und andere, die das Phänomen nicht aufweisen, wurden identifiziert: Sie wurden jeweils *Pro-Drop-Sprachen* und *Non-Pro-Drop-Sprachen* genannt.

Meine Arbeit zielt darauf ab, der Ermittlungslinie der Grammatiker bezüglich *Pro-Drop* zu folgen. Zusätzlich werden die formellen Aspekte von vier Sprachen, dem Modernen Italienischen (MI), dem Alten Italienischen (AI), dem Modernen Deutschen (MD) und dem Althochdeutschen (AHD), in dieser Hinsicht vorgestellt und verglichen.

Im ersten Kapitel bespreche ich den allgemeinen Rahmen des *Pro-Drop-Parameters* und berücksichtige einige der wichtigsten generativen Studien zum Thema. Ich analysiere das Wesen und die Eigenschaften des Phänomens und zeige die Grenzen der ersten Theorien im Bereich des *Nullsubjekts (NS)*, die das *NS* als leere syntaktische Kategorie betrachteten. Die von *Pro-Drop* übergenommenen Funktionen werden darüber hinaus unterstrichen. In Bezug auf die referentielle Funktion erläutere ich Chomskys (1973, 1981) Unterscheidung zwischen *Groß-PRO* und *Klein-Pro*. Außerdem beziehe ich mich auf die zwei bedeutendsten Hypothesen, die aufgestellt wurden, um das Auftreten des *NSs* zu begründen: 1) Die reiche Flexionsmorphologie am Verb und 2) den *Topic* Antezedenten. Darüber hinaus werde ich den Unterschied zwischen *Konsistent-, Radical- und Partiiell-Pro-Drop-Sprachen* darlegen. Abschließend stelle ich in Bezug auf die expletive Funktion von *Pro* die Gruppe der *Semi-Pro-Drop-Sprachen* vor.

Im zweiten Kapitel beschränke ich das Untersuchungsfeld auf eine Sprache, die total am *Pro-Drop*-Prozess beteiligt ist, das heißt auf das Moderne Italienische. Dafür präsentiere ich bedeutende Untersuchungen bezüglich der *NS*-Interpretation im Italienischen. Zuerst befasse ich mich mit Rizzis (1986) Studien zum italienischen *Nullobjekt* als arbiträrem Element und als Expletiv. Im Gegensatz zu traditionellen Interpretationen von referentiellem *Pro* führe ich anschließend Frascarellis (2007) innovativen Vorschlag gegenüber *Pro* in Subjektposition an. Ich führe sodann als *NS*-Auslöser das *Aboutness-shift Topic* ein. Letztlich stelle ich im Zusammenhang mit der diachronischen Perspektive Cognolas und Walkdens (in Druck) kürzlich erfolgte Studie an *Pro-Drop* im Alten Italienischen vor. Ich prüfe, ob AI als *Asymmetrisch-Pro-Drop-Sprache* betrachtet werden kann.

Im dritten Kapitel betrachte ich eine traditionelle *Non-NS-Sprache*: das Moderne Deutsch. Ich behandle seine möglichen Implikationen in Bezug auf das *Pro-Drop*-Phänomen. Ich prüfe anhand Abrahams (1992) Analyse den Zustand des MD als *Semi-Pro-Drop-Sprache*, aufgrund des Auslassens von expletivem Subjektpronomen im MD. Ich weise darüber hinaus das Vorkommen vom referentiellen *Pro* in der Form von *Topic Drop* nach (Cardinaletti, 1990; Rizzi, 1994; Trutkowski, 2011). Daneben führe ich

ein weiteres *NS*-Phänomen ein, bzw. das von Trutkowski (2011) bezeichnete *Out Of the Blue Drop*, das sich anders als „echtes“ *Pro-Drop* verhält, und das nur mit Pronomen in 1. und 2. Person zugelassen wird. Im Zusammenhang mit der diachronischen Aussicht untersuche ich Deutsch während einer früheren Phase. Das Ergebnis der Forschung ist, dass Althochdeutsch eine *Pro-Drop-Sprache* war. Betreffend der Auslöser von *Pro-Drop* im AHD zeige ich die Haltlosigkeit der Hypothese, die die syntaktische Übernahme aus dem Lateinischen annimmt. Ebenso werden die Theorien von reicher Verbalmorphologie und von pronominalem Agreement in Frage gestellt. Demgegenüber wende ich Axels und Weiß (2011) „V-to-C“ These an, die sich auf die *NS*-Asymmetrie zwischen Hauptsätzen und Nebensätzen stützt. Trotzdem stelle ich gemäß Schlachter (2010, 2012) und Walkden (2012, 2013, 2014) Studien vor, in denen *Pro* sowohl in Hauptsätzen als auch in Nebensätzen auftaucht. In diesem Zusammenhang identifiziere ich das *Aboutness-shift Topic* als Auslöser.

Im vierten Kapitel vergleiche ich drei der in den vorherigen Kapiteln untersuchten *Pro-Drop-Sprachen*, nämlich Modernes Italienisch, Altes Italienisch und das Althochdeutsche, weil sie alle *Pro* im engeren Sinn ermöglichen. In diesen Sprachen kommt *Pro* in der Tat nicht nur in der *SpecCP*-Position im Satz vor, sondern auch im Mittelfeld. Zuerst zeichne ich Parallelismen zwischen den zwei ältesten Sprachen auf, bzw. AI und AHD. Mittels Axels und Weiß (2011) syntaktischer Interpretation weise ich nach, dass beide Sprachen, AI und AHD, eine asymmetrische Verteilung hinsichtlich des *NS*- Auftretens haben. Daher werden sie als *Partiell-Pro-Drop-Sprachen* bewertet. Nach Schlachters (2010, 2012) und Walkdens (2012, 2013, 2014) Diskurs-Pragmatik-Stellung unterstreiche ich dennoch Analogien bezüglich des Vorkommens von *Pro* zwischen AHD und MI. Diese Sprachen sind allem Anschein nach diachronisch, syntaktisch und ursprünglich ungleich. Sie zeigen jedoch überraschenderweise einen deutlichen Parallelismus bezüglich des *NS*-Auslassens in Anwesenheit von einem *Topic* Antezedenten. Darüber hinaus weise ich eine Analogie im Rahmen der Erscheinung von non-referentiellem Subjekt im AHD und MI nach: Beide Sprachen lassen es in Form von *Pro* anstatt von Expletiv zu. Schließlich betone ich infolge des Vergleichs, dass AHD als *Konsistent-Pro-Drop-Sprache* wie MI anerkannt werden kann.

Zum Abschluss meiner Arbeit erkläre ich, dass das Ziel der zwei Vergleiche nicht ist, Schlachters (2010, 2012) und Walkdens (2012, 2013, 2014) Hypothese vom *Aboutness-shift Topic* anstatt Axels und Weiß (2011) Hypothese vom „V-to-C“ und umgekehrt zu unterstützen. Stattdessen erkenne ich beide Theorien als relevant und nicht als sich widersprechend an. Sie sind in verschiedenen Kontexten und unter verschiedenen Bedingungen gültig. Daher behaupte ich dass, die zwei Hypothesen sich gegenseitig aufwiegen, und dass sie einen bedeutenden Beitrag zur Generativen Grammatik leisten. Obwohl das „V-to-C“ Muster für alle Personen der Konjugation gilt, ist es auf die Hauptsätze beschränkt. Im Gegenteil wirkt das *Aboutness-shift Topic* sowohl auf Hauptsätze als auch auf Nebensätze, aber nur auf das 3. Person-Subjekt mit anaphorischer Funktion.

## Introduction

In the second half of the 20<sup>th</sup> century, the framework of theoretical linguistics began to be moulded according to Noam Chomsky's model of Generative Grammar. Chomsky's (1981, in Wratil & Gallmann 2011: 2) *Theory of Principles and Parameters* conceives the language faculty as a mental state, which is ruled by innate Principles proper of the human mind. These Principles are universal, since they belong to any human being and, as a consequence, to any language of the world. Besides Principles, which are common to all languages, there are Parameters, which represent the factor of variation among them. As Camacho (2013: 1) declares:

"In the 1980s framework of Generative Grammar, principles represented the invariant component of languages and parameters the variation dimension".

While Principles are part of the internal genetic heritage of the human being, Parameters are set by each individual during the acquisition of the target language through the exposition to external inputs. According to grammarians, one of the results of such a parameter setting is the omission of subjects in sentences, or more appropriately, the representation of subjects as *null pronouns*. Indeed, as Chomsky's (1981) *Extended Projection Principle (EPP)* affirms, all clauses must have a *noun phrase (NP)* or *determiner phrase (DP)* in the subject position (in Spec, IP). It follows that in all languages the subject is always syntactically present in clauses. However, sometimes it can be non-overtly realized.

Since the 1980s, *null pronouns* represent one of the most discussed themes of Generative Grammar. Traditional and current linguistic investigations have aimed at determining the reasons why this parameter, which has been defined *pro-drop* ("pronoun-dropping"), has been fixated positively over time by some communities of speakers and negatively by others. It distinguishes *pro-drop languages* from *non-pro-drop ones*.

My dissertation aims at following the line of investigation of grammarians concerning the *pro-drop* parameter and, additionally, at presenting and comparing in this light the formal behaviour of four languages: Modern Italian (MI), Old Italian (OI), Modern German (MG) and Old High German (OHG).

In chapter one, I will delineate a general framework concerning the *pro-drop* parameter, taking into account some of the main generative studies on the theme. I will analyze the nature and the properties of the parameter and show the limits of the first *null subject (NS)* theories, which considered *NS* as an empty syntactical category. Focus will also be put on the functions this parameter can assume. Concerning the referential function, I will provide Chomsky's (1973, 1981) distinction between (*big*) *PRO* and (*small*) *pro* and I will refer to the two major hypotheses that have been advanced to justify the occurrence of *pro*: 1) the rich agreement inflection on finite verb and 2) the topic antecedent. Furthermore, on the basis of Rizzi's (1982, 1986) classification, I will expose the distinction among *consistent*, *radical* and *partial NS languages*. Finally, taking into account the expletive function of *pro*, I will introduce a further group of *NS languages*, the *semi NS languages*, according to Biberauer's (2010) classification.

In chapter two, I will restrict the field of investigation to one of the language which is mostly involved in the process of *pro-drop*: Italian. I will take into account some of the main studies concerning the interpretation of the *pro-drop* parameter in the Italian language. Firstly, I will examine Rizzi's (1986) analysis of the Italian *Null Object* in form of an arbitrary element and in function of an expletive. Thereafter, diverging from the classical interpretation of *referential pro*, I will propose Frascarelli's (2007) innovative account on *pro* in subject position. Indeed, in opposition to the predominant licensing hypothesis of the rich inflectional morphology, which was adopted by Rizzi (1986) as well, I will introduce Frascarelli's (2007) *Aboutness-shift Topic* model. Lastly, adopting a diachronic perspective, I will advance the recent investigation of Cognola & Walkden (in press) concerning *pro-drop* in Old Italian, which can be considered an *asymmetric NS language*.

In chapter three, I will focus on a traditional *non-NS-language*, German, and I will reexamine its implication with the *pro-drop* phenomenon. Following Abraham's (1992) account, I will indeed prove that Modern Standard German (MG) can be considered a *semi-NS-language*, as it can license *pro* in form of non-argumental expletive omission. Furthermore, I will attest the occurrence of *referential pro* in MG in the form of *topic drop* (Cardinaletti, 1990; Rizzi, 1994; Trutkowski, 2011). I will additionally provide evidence of another subject-omission phenomenon that only affects 1<sup>st</sup> and 2<sup>nd</sup> person pronouns and that cannot be considered *pro-drop* in the narrower sense, i.e. the *Out of the Blue Drop (OBD)* (Trutkowski, 2011). At this point, I will develop my investigation in a diachronic sense, through analyzing German in its former stage. I will recognize Old High German (OHG) as a *pro-drop* language due to the high frequency of *NSs* in the available attestations. Concerning *NS* triggering factors in OHG, I will demonstrate the groundlessness of the loan (from Latin) syntax hypothesis and of other two accredited theories, i.e. the rich verbal morphology and the pronominal agreement. By contrast, I will promote Axel & Weiß's (2011) V-to-C assumption, which is grounded on the *NS* asymmetry between main and embedded clauses. Nevertheless, in light of Schlachter (2010, 2012) and Walkden's (2012, 2013, 2014) accounts, I will provide evidence of the incidence of *pro* in both clause types and will support their licensing hypothesis, i.e. the *Aboutness-shift Topic* theory.

In chapter four, I will compare three of the *NS languages* I have analysed in the previous chapters, i.e. Modern Italian, Old Italian and Old High German, as they all allow *pro-drop* in the narrower sense. Firstly, I will provide parallelisms between the two oldest languages, i.e. OI and OHG. According to Axel & Weiß's (2011) structural perspective, I will show that both OI and OHG have an asymmetric syntactic distribution with respect to *NS* and, therefore, I will recognize them as *partial NS languages*. Nevertheless, promoting Schlachter (2010, 2012) and Walkden's (2012, 2013, 2014) discourse-pragmatic view, I will surprisingly highlight analogies concerning the *NS* occurrence between OHG and MI, which are to all appearances diachronically, syntactically and originally different languages. Furthermore, I will evidence a parallelism related to the use of the *non-referential subject* in OHG and MI: both

languages license it in form of *pro*, rather than of an expletive. Finally, as the result of this comparison, I will prove that OHG is more properly recognized as a *consistent NS language*, just as MI.

# 1. The *pro-drop* parameter: a general framework

## 1.1 Thematic *pro*

The linguistic investigation concerning the *pro-drop* parameter originated from the necessity of grammarians to conceptualize those functional elements that, according to Wratil and Gallmann (2011: 1), identify particular extra-linguistic items despite lacking a phonetic shape. They can be defined “non-overt” functional elements, as they are not physically realized in clauses.

The first generative study concerning this “non-overt” syntactic element has been attributed to Perlmutter (1971, in Biberauer et al., 2010: 3), who identifies some specific languages in which *pro-drop* occurs. He distinguishes them in two typologies:

- *Type A languages*, e.g. French and English, which require finite clauses to overtly express a definite, referential, pronominal subject in order to be grammatical.
- *Type B languages*, e.g. Spanish, Italian, Serbo-Croatian, Arabic, Hebrew, Warlpiri and Basque, whose grammaticality is not compromised by the absence of an overt subject in finite clauses.

The contrast between the two typologies of languages is clear in the following example:

(1)

*Type B languages*

a. *Studia l'inglese*

b. *Estudia inglés*

*Type A languages*

c. *\*Studies English*

d. *\*Étudie l'anglais*

“He/she studies English”

It can be affirmed that *Type B languages* are *null-subject (NS) languages*, while *Type A languages* are *non-null-subject (non NS) languages*. However, although *non NS languages* do not allow the *NS pronoun* in finite clauses, many of them, including English and French, allow or require the *NS pronoun* in non-finite clauses. The example<sup>1</sup> below proves this condition:

- (2) a. [(Him) smoking] bothers me.  
b. John expects [(Mary) to leave soon].  
c. Jean a essayé [de - partir].  
John has tried [- to leave].

The empty subject of the infinitive in (2a) is arbitrary, whereas the empty subject of the infinitives in (2b, c) is the same subject of the respective main clauses. On the basis of these considerations, it can be deduced that the loss of subject in infinitives is not a proper deletion process, as Rosenbaum (1967, in Wratil & Gallmann 2011: 1) had supposed. It is rather the result of the occurrence of a specific functional category, which Postal (1969, in Wratil & Gallmann 2011: 1) and Chomsky (1973, in Wratil & Gallmann 2011: 1) identify as a null pronominal subject. It is the so-called *null pronoun* or *NS*.

### 1.1.1 (big) PRO: null subject of non-finite verbs

In relation to non-finite clauses, Chomsky (1973, in Wratil & Gallmann 2011: 1) defines the *NS* of these clauses (*big*) *PRO*. Furthermore, Chomsky & Lasnik (1977, in Wratil & Gallmann 2011: 1) notice that *PRO* occurs when the pronoun assumes referential properties, which means when it has an anaphoric function. It follows:

*PRO* [+anaphoric; +pronominal]

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<sup>1</sup> Example (2) is taken from Roberts & Holmberg, 2005, in Biberauer et. al, 2010: 4, their example (4).

As Wratil and Gallmann (2011: 1) underline, these two features of PRO combines two contradictory principles of the *Binding Theory*<sup>2</sup>:

- Principle A: *anaphors* must be bound to a governing category;
- Principle B: *pronouns* must be free in their domain.

The conditions [+anaphoric; +pronominal] are realized simultaneously only with non-finite verbs, since, according to Chomsky (1981), as expressed by Wratil and Gallmann (2011: 1), “non-finite verbs are not capable of governing their subject”. It means that, although the subject of non-finite verbs should have a referential (anaphoric) function, it cannot be expressed overtly by a DP, since it cannot be governed by any case. Therefore, the subject of non-finite verbs is represented by PRO, which is the only element that can be caseless. In other words, null case is assigned to the subject DP of non-finite verbs in the SpecI-position by means of PRO, as the following example shows:

- (3) a. *Laura began [PRO/\*she to study for the exam].*  
b. *[PRO/\*Laura to study for the exam] would be advisable.*

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<sup>2</sup> In order to explain the relation between the two features of PRO [+anaphoric; +pronominal] with Principle A and Principle B of the *Binding Theory*, I will use an example provided by MIT (Massachusetts Institute of Technology):

- (i) *John<sub>i</sub> criticized himself<sub>i</sub>.*  
(ii) *John<sub>i</sub> criticized him<sub>j</sub>.*

In (i) the word *himself* refers to John: the person that John criticized was John. For this reason, *John* and *himself* have the same index (i), which means they are *co-indexed*. Furthermore, *himself* is strictly bound to *John*: it refers to its antecedent. It is said that *John c-commands himself*. Words like *himself* are defined *anaphors*. Hence, according to Principle A, anaphors must be bound to an antecedent. In (ii), on the other hand, *him* cannot refer to John: *him* is a *pronoun* that refers to anyone else who is not mentioned in the sentence. For this reason, *John* and *him* have two different indexes (i/j) and they are not bound to one another. Therefore, Principle B affirms that a pronoun must be free in its binding domain.

### 1.1.2 (small) *pro*: null subject of finite verbs

Thanks to Perlmutter (1971, in Wratil & Gallmann 2011: 2) and Taraldsen's (1978, in Wratil & Gallmann 2011: 2) contribution, it was attested that in many old Indo-European languages and in many Modern Romance languages the null referential subject pronoun involves finite clauses as well. Chomsky (1981, in Wratil & Gallmann 2011: 2) justifies the occurrence of null subjects with finite verbs assuming that the inflectional features in this kind of languages are expressed by finite verbs only. In other words, the functional head INFL does not govern the subject position, but only the verbal one. Hence, the subject position can result empty and be filled by what Chomsky (1981, in Wratil & Gallmann 2011: 2) calls (small) *pro*. As the subject of finite clauses, *pro* is definite and pronominal:

*pro* [-anaphor; +pronominal]

It implicates that *pro* has the same syntactic distribution of definite overt subject pronouns and lexical DPs, as can be noticed in the following example from Italian:

#### (4) Italian

a) (*pro*) *dorme*            *sul divano?*  
      sleep-3<sub>SG</sub>        on the couch  
      “Does he/she/it sleep on the couch?”

b) *Luca* *dorme*            *sul divano?*  
      Luca sleep-3<sub>SG</sub>        on the couch?  
      “Does Luca sleep on the couch?”

In relation to the *Binding Theory*, it has been observed by Montalbetti (1984, in Camacho, 2013: 30) that overt and null pronouns cannot co-occur as variables in *NS languages*. This concept is expressed by the *Overt Pronoun Constraint (OPC)*:

“Overt pronouns cannot link to formal variables if the alternation overt/empty obtains”

The example<sup>3</sup> below clarifies the principle:

(5) Spanish

- a. *Todo estudiante<sub>i</sub> cree que pro<sub>i</sub> es inteligente*  
Every student thinks that is intelligent  
“Every student<sub>i</sub> thinks that he<sub>i</sub> is intelligent”
- b. *Todo estudiante<sub>i</sub> cree que él<sub>\*i/j</sub> es inteligente.*  
Every student thinks that he is intelligent  
“Every student<sub>i</sub> thinks that he<sub>j</sub> is intelligent”

(5a) and (5b) differ semantically for the occurrence of null (*pro*) and overt pronoun. In (5a) *pro* as the subject of the secondary clause is co-indexed with the subject of the main clause (*todo estudiante*). It means that the two subjects are strictly bound: each student thinks that he himself is intelligent. By contrast, in (5b) the overt pronoun *él* is not bound to *todo estudiante*, i.e. they are not co-indexed. The meaning is that each student thinks that somebody different from himself is intelligent. In other words, *pro* and *él* are not interchangeable with one another in a sentence: they cannot be variables in the same context.

## 1.2 *Pro-drop*'s triggering factors: the two main hypotheses

### 1.2.1 The first hypothesis: the rich verbal inflectional morphology

As discussed above, according to Chomsky's (1981, in Wratil & Gallmann 2011: 4) perspective, the occurrence of the *pro-drop* parameter in a language is determined by

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<sup>3</sup> Example (5) is taken from Montalbetti, 1984, in Camacho, 2013: 30, his example (48).

the morphological structure of verbal inflection. The person and number features of the missing subject are totally embodied by the rich agreement on the finite verb. These assumptions are rooted in more ancient linguistic studies. As Roberts & Holmberg (2005, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 2) state, traditional grammars analysed the pronominal subject of many languages such as Latin as “marked in the verb”, i.e., expressed by the person-number agreement inflection on the finite verb. Hence, there was no necessity to express the properties of the pronominal subject with an overt independent element, unless there was the intention to emphasize them. Jespersen (1924, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 3) affirmed:

“In many languages the distinction between the three persons is found not only in pronouns, but in verbs as well...in Latin...Italian, Hebrew, Finnish, etc. In such languages many sentences have no explicit indication of the subject, and *ego amo, tu amas* is at first said only when it is necessary or desirable to lay special stress on the idea *I, thou*”.

In Chomsky’s (1981) terms, *pro-drop* only affects languages with distinctive morphological agreement specifications on verbs: only if all available *phi-features* are represented by the agreement marking of the finite verbs, pronominal null subject can be realized. Finite verbs in Italian, just as in other Romance languages, present a rich inflectional morphology and allow *pro*. It can be remarked, for instance, in the simple present conjugation of *dormire* (“to sleep”):

(6) *Italian*

<i>(pro) dorm-o</i> (1 <sub>SG</sub> )	“I sleep”
<i>(pro) dorm-i</i> (2 <sub>SG</sub> )	“you sleep”
<i>(pro) dorm-e</i> (3 <sub>SG</sub> )	“he/she/it sleeps”
<i>(pro) dorm-iamo</i> (1 <sub>PL</sub> )	“we sleep”
<i>(pro) dorm-ite</i> (2 <sub>PL</sub> )	“you sleep”
<i>(pro) dorm-ono</i> (3 <sub>PL</sub> )	“they sleep”

Chomsky's (1981) position is supported by Rizzi (1982, 1986), who also attributes the license for *pro* to the rich verbal inflection. In particular, Rizzi (1982, in Cognola & Casalicchio 2018: 2) identifies four properties that characterize the null subject:

- a. The possibility of a silent, referential, definite subject in finite clauses.
- b. Free subject inversion.
- c. Absence of complementizer-trace effects.
- d. Rich agreement inflection on finite verbs.

As analysed by Roberts & Holmberg (2005, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 16), property (b) refers to the possibility of expressing an overt subject in post-verbal position in order to put the focus on it. That is clear in the following example<sup>4</sup>:

- (7) a. *Hanno telefonato molti studenti.*  
b. \**Ont téléphoné beaucoup d'étudiants.*  
Have telephoned many students.  
"Many students have telephoned".

Property (c) refers to Perlmutter's (1971, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 16) generalization, which states that in *non NS languages* the subject of a finite clause cannot be realized through *wh-movement* if the clause is introduced by a complementiser. The following example<sup>5</sup>, which is based on English and French, attests this limitation:

- (8) a. \**Who did you say that – wrote this book?*  
b. \**Qui as-tu dit qu' – a écrit ce livre? (=8a)*

The ungrammaticality of (8a, b) is due to the *complementiser-trace effect*. According to this theory, the subject of the subordinate clause (*who/qui*), i.e. a *wh-element*, moves to the complement clause and leaves its trace in the empty subject position. Hence, the presence of the complementiser in the subject position makes the sentence ungrammatical. (8a) becomes grammatical if *that* is omitted, whereas (8b) becomes

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<sup>4</sup> Example (7) is taken from Roberts & Holmberg, 2005, in Biberauer et al., 2010: 16, their example (23).

<sup>5</sup> Example (8) is taken from Roberts & Holmberg (2005, in Biberauer et al., 2010: 16, their example (24)).

grammatical if the complementiser *que* is substituted with *qui*, which has the function of subject. The example<sup>6</sup> below confirms that theory:

- (9) a. *Who did you say - wrote this book?*  
b. *Qui as-tu dit qui - a écrit ce livre ? (=9a)*

By contrast, Perlmutter (1971, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 17) attests that *complementiser-trace effects* do not occur in *NS languages*. The presence of the complementiser before the subject of a complement clause does not compromise the grammaticality of the sentence, as the following example<sup>7</sup> shows:

- (10) a. *Italian*  
*Chi hai detto che - ha scritto questo libro?*  
Who have-2<sub>SG</sub> said that - has written this book  
b. *Greek*  
*Pjos ipes oti - egrapse afto to vivlio?*  
Who said-2<sub>SG</sub> that - wrote this the book  
“Who did you say wrote this book?”

Nevertheless, Rizzi (1982, in Cognola & Casalicchio 2018: 2) only attributes the four properties of the null subject to some *pro-drop languages*, which he calls *consistent NS languages*, such as most Romance languages and Greek. *Consistent NS languages* present *null pronoun* in all persons and in all tenses. The use of an overt subject pronoun in these languages is only allowed to put emphasis on the subject, as the following example<sup>8</sup> shows:

- (11) a. *Italian*  
*Lui parla italiano*  
*HE speaks Italian*  
b. *Spanish*  
*Él habla español*  
*HE speaks Spanish*  
c. *Greek*

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<sup>6</sup> Example (9) is taken from Roberts & Holmberg, 2005, in Biberauer et al., 2010: 16, their example (25).

<sup>7</sup> Example (10) is taken from Perlmutter, 1971, in Biberauer et al., 2010: 17, his example (26).

<sup>8</sup> Example (11) is taken from Roberts & Holmberg, 2005, in Biberauer et al., 2010: 7, their example (6).

*Aftos mila ellinika*  
*HE speaks Greek*

Other *pro-drop languages*, the so-called *radical/discourse NS languages*, such as Japanese, Chinese, Thai, Korean and Vietnamese, differ from the others for the following aspects:

- e. The possibility to omit the object along with subject.
- f. Lack of agreement inflection on finite verbs.

The feature (f) implicates that the null category of these languages is not licensed via agreement: *pro* rather depends on contextual factors. According to Roberts & Holmberg's (2005, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 9) account, three hypotheses have been advanced regarding the occurrence of *pro-drop* in *radical NS languages*:

1. Tomioka's (2003, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 9) *Discourse Pro-Drop Generalisation*<sup>9</sup>, according to which *pro* is simply due to the deletion or ellipsis of the NP. As a consequence, the NP position (both subject and object) can be bare (empty) without compromising the grammaticality of the sentence.
2. Neeleman & Szendrői's (2007; 2008, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 9) proposal of the *context-free KP-deletion*, which considers *pro* as a process of KP (Case Phrase) deletion. The authors identify indeed NP with KP, as NP contains a syntactic position for Case.
3. Saito's (2007, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 9) hypothesis of argument ellipsis in NP licensed by the lack of surface agreement triggers. In other words, since *radical NS languages* do not present inflectional agreement on verbs, arguments are not required to be overtly expressed.

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<sup>9</sup> The *Discourse Pro-Drop Generalisation* (Tomioka, 2003, in Biberauer, Holmberg, Roberts, Sheehan, 2010: 9) states:

"All languages which allow discourse *pro-drop* allow (robust) bare NP arguments... Null pronouns in Discourse *Pro-Drop* languages are simply the result of N'-Deletion/NP-Ellipsis without determiner stranding".

As well as the two above-mentioned groups (*consistent* and *radical NS languages*), a third class of languages is identified by Rizzi (1982, 1986): the *partial NS languages*, such as Finnish, Brazilian Portuguese, Hebrew and Russian. One of their properties is the possibility to have a silent, referential, definite subject only in a restricted number of syntactic contexts and under specific conditions. Cognola and Casalicchio (2018: 20-21) provide an analysis of the most common restrictions concerning NS in *partial NS languages*. These restrictions are related to:

- g. Persons.
- h. Asymmetry between main and embedded clauses.
- i. Interpretation of generics.

Regarding restriction (g), the two authors observe that in some *partial pro-drop languages*, e.g. Hebrew and Finnish, referential null subject only occurs in the first and second person and not in the third person. By contrast, in others, e.g. Old English and Old High German, NS is frequent in the third person and uncommon in the first and second one. Furthermore, there are also *partial NS languages* that only present *pro* in the second person. To justify restriction (h), Cognola & Casalicchio (2018: 20-21) state that in Old Romance and Old Germanic languages *pro* only characterized main clauses and was rare in embedded clauses. On the contrary, in other partial NS languages it is restricted in embedded clauses. Finally, according to restriction (i), the authors maintain that a third person NS in *partial NS languages* can have an arbitrary, generic interpretation, which is similar to that of the English indefinite pronoun *one*. This interpretation is not possible in *consistent NS languages*, where a plain or null third person always has a specific referent. The generic interpretation of the NS third person in *consistent NS languages* is only allowed if overtly marked with an impersonal

pronoun<sup>10</sup>. The example<sup>11</sup> below compares a *consistent NS language* just as European Portuguese (EP) with a *partial NS language* just as Brazilian Portuguese (BP) and puts light on the generic interpretation of the third person NS in BP:

- (12) a. BP  
É assim que faz o doce.  
Is thus that makes the sweet  
“This is how one makes the dessert”
- b. EP  
É assim que se faz o doce.  
Is thus that SE makes the sweet  
“This is how one makes the dessert”

In BP the subject position corresponding to the generic pronoun *one* is null. Therefore, the null pronoun has in this case a generic interpretation. By contrast, in EP *one* is represented by the generic pronoun *se*, which must be expressed.

In relation to the generic interpretation of *pro*, Holmberg (in Biberauer, Holmberg, Roberts, Sheehan, 2010: 92) provides a distinction between:

- *generic inclusive reading*, which denotes people in general, including the speaker and the addressee. It corresponds to the English impersonal pronoun *one* and to the generic second-person pronoun *you*.
- *generic exclusive reading*, which denotes people in general, but does not include the speaker and the addressee. It corresponds to the English generic pronoun *they*.

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<sup>10</sup> In Italian, for instance, the generic interpretation of the NS third person is marked by means of the impersonal pronoun *si*. Example:

*Si raccoglie ciò che si semina*  
One reaps what one sows  
“What goes around comes around”

<sup>11</sup> Example (12) is taken from Holmberg, in Biberauer et al., 2010: 92, his example (10).

### 1.2.2 The second hypothesis: the topic antecedent

On the basis of Rizzi's (1982, 1986) and Cognola & Casalicchio's (2018) studies on the different typologies of *NS languages*, it can be affirmed that, although the rich inflectional morphology of finite verbs is a valid condition to justify the occurrence of *pro-drop*, in many cases it is not sufficient. Additional evidences are provided by languages like German and Icelandic, whose verbal paradigms present a morphologically rich inflectional system: despite this condition, they are not full *pro-drop languages*. As a consequence, as Cognola & Casalicchio (2018: 11) report, several generative positions have contrasted the classical verbal morphology hypothesis.

Alternative approaches identify the cause of *pro-drop* in discourse. In particular, they are founded on the assumption that NS originates from a topic antecedent and a mechanism of feature inheritance. Most current approaches argue that NS is determined through a combination of the two triggering factors, i.e., verbal agreement and topic antecedent. Cole (2009, 2010, in Cognola & Casalicchio 2018: 11) affirms indeed that NS occurs through Agree and context identification. Concerning morphology, each language requires the maximal agreement on the finite verb in order to license *pro*. It means that each language has a *Minimal Morphological Threshold* (Cognola & Casalicchio, 2018: 11), i.e., the minimal number of features to be overtly realized by agreement in order to allow *pro*. However, not all *NS languages* present overt morphology (e.g. radical NS languages) and not all *non-NS languages* have a weak verbal inflectional system (e.g. Icelandic). Hence, Cole (2009, 2010, in Cognola & Casalicchio 2018: 12) identifies a further triggering factor, i.e., an antecedent in the discourse. He also defines *contextually strong languages without agreement* radical NS languages, as the context creates the sufficient conditions to license NS despite the lack of verbal agreement. Whereas he calls *contextually weak languages* non-NS languages like Icelandic, since the context does not allow NS despite the rich inflectional system.

### 1.3 Expletive *pro*

Most traditional and current accounts to *pro-drop* concern the referential use of NS. A less common type of NS is the *expletive pro*. The use of overt expletive subjects is largely spread in *non-pro-drop languages*. According to Cognola and Casalicchio's (2018: 4) definition, an expletive is a "semantically empty dummy element" which is part of the structure because of a syntactic requirement: the necessity to have an expressed subject in Spec, TP position. The two linguists identify three properties of the expletive subject:

- a. The obligation of the expletive in a series of syntactic contexts.
- b. The lack of any marked pragmatic interpretation concerning the expletive.
- c. The need to have the expletive both in the sentence-initial position and after the finite verb.

I will show evidences of the above-mentioned properties through providing two examples of the use of the overt expletive subject in a *non-pro-drop language* like German:

- (13) *German*
- a) *\*(Es) hat geregnet*  
EXP have-3<sub>SG</sub> rained  
"It rained"
- b) *\*(Es) spielen viele Kinder im Kindergarten*  
EXP play-3<sub>PL</sub> many children in the kindergarten  
"Many children are playing in the kindergarten"
- c) *Heute Morgen hat \*(es) geregnet*  
this morning have-3<sub>SG</sub> EXP rained  
"It rained this morning"

It can be noticed that the expletive in *non-NS languages* is mandatory in specific syntactic contexts, such as with weather verbs (4a, c) and existential constructions (4b). Moreover, the expletive is pragmatically empty, in a sense that it does not add anything to the pragmatic and semantic meaning of the sentence. Indeed, it is only

required for formal reasons. It is obligatory both in the sentence-initial position (4a, b) and after the finite verb (4c).

According to Chomsky's (1981, in Frascarelli 2007: 5) *Avoid Pronoun principle*<sup>12</sup>, the use of overt subjects in *NS languages* should be limited to cases in which they are strictly necessary. Therefore, the occurrence of overt "empty" subjects like expletives in *NS languages* has been considered impossible by classical generative approaches.

However, this idea has been recently disputed through the studies on *expletive pro*. It has been attested that some *NS languages*, such as Spanish, can present *expletive pro*, as the example<sup>13</sup> shows:

- (14) *Dominican Spanish*
- |        |                      |                  |             |
|--------|----------------------|------------------|-------------|
| (Ello) | <i>vienen</i>        | <i>haitianos</i> | <i>aquí</i> |
| EXP    | come-3 <sub>PL</sub> | Haitians         | here        |
- "People from Haiti come here"

*Expletive pro* has also been recognized in Vietnamese and in the other *radical pro-drop languages*. This element has properties in common with expletives in *non-NS languages*. For this reason, it has been defined "*expletive-like element*" (Cognola & Casalicchio, 2018: 4). The following example<sup>14</sup> concerns Vietnamese:

- (15) *Vietnamese*
- a) (Nó) *mưa bây giờ đấy*  
EXP rain now PRT  
"It is about to rain now"
- b) (Nó) *không có cái bút nào*  
EXP NEG exist CLF pen any  
"There are no pens"
- c) (Nó) *ngã thằng bé*  
EXP fall CLF little  
"A/the boy fell"

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<sup>12</sup> The *Avoid Pronoun principle* (Chomsky, 1981, in Frascarelli 2007: 5) affirms: "avoid overt pronoun, whenever possible".

<sup>13</sup> Example (14) is taken from Camacho, 2013, in Cognola & Casalicchio, 2018: 3.

<sup>14</sup> Example (15) is taken from Greco et al., in Cognola & Casalicchio, 2018: 4.

The expletive pronoun appears in the same syntactic contexts in which the expletive is required in *non-NS languages*, i.e., with weather verbs (6a), existential constructions (6b) and presentational constructions featuring unaccusative verbs (6c).

The difference between the use of *expletive pro* in *NS languages* (both *consistent* and *radical*) and in the use of expletive subjects in *non-NS languages* is that in the first case the *expletive-like element* is optional, which means that it does not have to satisfy any formal requirement. Moreover, unlike expletives in non-NS languages, *expletive-like elements* always have a marked pragmatic interpretation: they can assume an emphatic or contrastive function or can represent recoverability in the discourse.

It can be deduced that true expletives (in *non-NS languages*) fulfill a syntactic function, whereas *expletive-like elements* (in *NS languages*) fulfill a pragmatic/discourse one. Finally, expletive-like elements can never appear post-verbally, i.e. in the inversion position and in main interrogative clauses.

Further studies on the *expletive pro* theme brought to reconsider some *non-NS-languages* such as German. German was thought not to be affected by the *pro-drop* parameter. It was in fact observed that German allows *pro* in form of non-argumental expletive omission, i.e. when the expletive does not bear any  $\phi$ -role and does not present arguments concerning weather verbs and existential construction. A further category of languages has therefore been identified, i.e. the so-called *semi NS languages*, and German is one of them. Biberauer (in Biberauer, Holmberg, Roberts, Sheehan, 2010: 153) recognizes three sub-types of *semi NS languages* and provides the following distinction:

- a. Those languages which only permit non-argumental expletive omission, i.e. omission of “true” expletives, which do not bear a  $\phi$ -role (argument of weather verbs, etc. are therefore to be excluded and must be overtly realized) – e.g. Dutch, German.
- b. Those which permit both non-argumental expletive omission and omission of so-called *quasi-arguments* (i.e. arguments of weather verbs, etc.) – e.g. Icelandic, Yiddish.
- c. Those which permit omission of non-argumental expletives, quasi-arguments and, under certain restricted circumstances, referential subjects – e.g. Finnish, Hebrew, Bavarian German, Ukrainian.

Biberauer's (2010) analysis of *semi NS languages* is in line with the general classification of *NSL (null subject languages)* proposed by Rizzi (1986):

- a. *Full NSL*: they license both referential and non-referential null pronominals ( $pro_{REF}$  and  $pro_{EXP}$ ) – Italian, Spanish, Greek.
- b. *Semi NSL Type I*: they only license null non-referential pronominals, i.e. quasi-argumental ( $pro_{EXP+A}$ ) and non-argumental ( $pro_{EXP-A}$ ) expletives – Icelandic, Yiddish.
- c. *Semi NSL Type II*: they only license null non-argumental pronominals ( $pro_{EXP-A}$ ), but not referential or quasi-argumental expletives – Dutch, German.
- d. *Non NSL*: they do not license null pronominals ( $pro$ ) at all – e.g. English, French.

#### 1.4 The concept of “null category”

In conclusion to this first chapter, I will resume and specify the three different generative interpretations concerning the meaning of *NS*, according to Cognola & Casalicchio's (2018: 16-20) postulation:

- a. *NS* as an empty nominal category unspecified for  $\varphi$ -features.
- b. *NS* as a silent, referential pronoun ( $pro$ ).
- c. *NS* as an elliptical gap (*topic drop*).

Interpretation (a) conceives  $pro$  as an empty category without properties apart from the nominal feature. The other features of  $pro$  are totally embodied by Agr/Infl or by a clitic. By contrast, Holmberg (2005, in Cognola & Casalicchio 2018: 16) assumes that *NS* is a pronoun with interpretable features. It occupies the Spec, TP position and takes the form of a weak overt pronoun with  $\varphi$ -features, in a sense that its phonological shape can be deleted. Holmberg's (2005) position represents interpretation (b) and supposes, therefore, that *NS* is not a null (empty) category. *NS* is rather a referential, phonologically null pronoun with  $\varphi$ -features. The latter are silent and interpretable

through the Agr/Infl. Finally, interpretation (c), which concerns in particular radical NS languages lacking agreement, identifies *NS* as a case of argument ellipsis.

## 2. *Pro-drop* in Italian

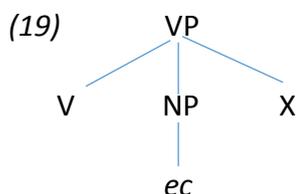
### 2.1 Null pronoun in the object position

A fundamental contribution to the generative studies on *pro-drop* was given by Rizzi (1986). He provides a partial reinterpretation of the general theories concerning the *NS* parameter on the basis of Italian data.

Firstly, Rizzi (1986: 501) focuses on the relation between lexical meaning and syntactic form. In particular, he analyses the case of the ‘understood’ or ‘implicit’ lexical meaning of a verb, which does not correspond to any syntactic representation. In order to support his study, he provides the following examples<sup>15</sup> from English and Italian:

- (16)     *a. This leads (people) to the following conclusion.*  
          *b. Questo conduce (la gente) alla seguente conclusione.*
- (17)     *a. This sign cautions (people) against avalanches.*  
          *b. Questo cartello mette in guardia (la gente) contro le valanghe.*
- (18)     *a. John is always ready to please (people).*  
          *b. Gianni e sempre pronto ad accontentare (la gente).*

The direct object in brackets can be omitted in all these sentences. At a syntactic level, the omitted NP can be represented through two different structures in relation to VP:

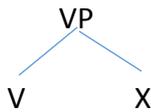


(Rizzi, 1986: 501, his structure (4))

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<sup>15</sup> Examples (16)(17)(18) are taken from Rizzi, 1986: 501, his examples (1)(2)(3).

(20)



(Rizzi, 1986: 501, his structure (5))

In structure (19) the missing object is realized as a phonetically null element, whereas in structure (20) it is totally absent. According to Chomsky's (1981, 1982, in Rizzi 1986: 501) *Projection Principle*<sup>16</sup>, structure (19) seems to be the correct one, since the direct object (*people-la gente*), which is part of the lexical meaning of the verb, must be syntactically present, even in form of a null arbitrary pronoun (*pro*). Nevertheless, considering the theory of null element, the correct structure seems to be (20). Indeed, according to this theory, the object position can be left empty, as there is no possible null filler: the direct object cannot be recognized in an antecedent and it can be neither *PRO*, as it is governed by *V*, nor *pro*, as it does not depend on the verbal strong agreement. Rizzi (1986: 502) assumes that structure (19) is the correct syntactic representation of the Italian examples, while structure (20) is the correct one for the English examples.

### 2.1.1 Syntactic differences between Italian and English

In order to justify his conclusion, Rizzi (1986: 502) provides five arguments that highlight the differences between Italian and English:

1. *Control*: the presence of *PRO* depends on a controller that, according to *Bach's generalization*<sup>17</sup>, cannot be omitted in English. The same generalization is also valid for Italian under different conditions, as the examples<sup>18</sup> show:

(21) a. *This leads people to the following conclusion.*

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<sup>16</sup> The *Projection Principle* (Chomsky 1986: 84) claims: 'lexical structure must be represented categorically at every syntactic level'.

<sup>17</sup> *Bach's generalization* (Bach, 1979, in Rizzi 1986: 503, his assumption (7)): 'In object control structures the object NP must be structurally represented'.

<sup>18</sup> Examples (21)(22)(23)(24) are taken from Rizzi, 1986: 503, his examples (6)(8).

- b. *Questo conduce la gente alla seguente conclusione.*
- (22) a. *This leads to the following conclusion.*  
 b. *Questo conduce \_\_\_\_ alla seguente conclusione.*
- (23) a. *This leads people [PRO to conclude what follows].*  
 b. *Questo conduce la gente a [PRO concludere quanto segue].*
- (24) a. *\*This leads [PRO to conclude what follows].*  
 b. *Questo conduce \_\_\_\_ a [PRO concludere quanto segue].*

(24a) is syntactically represented by structure (20) and is ungrammatical, since the object is not structurally present and cannot be replaced with a null pronoun. On the contrary, all Italian sentences are grammatical, because an object controller can be phonetically null in Italian. However, according to Rizzi (1986: 503), the Italian object can be null only when the time reference of the sentence is generic. Examples (25)(26)<sup>19</sup> prove that condition:

- (25) a. *Il bel tempo invoglia \_\_\_\_ a [PRO restare].*  
 'The nice weather induces to stay.'
- b. *\*?Alla fine della vacanza il bel tempo ha invogliato \_\_\_\_ a [PRO restare].*  
 'At the end of the vacation the nice weather has induced \_\_\_\_ to stay.'
- (26) a. *Un generale può costringere a [PRO obbedire ai suoi ordini].*  
 'A general can force to obey his orders.'
- b. *\*Alle cinque il generale ha costretto \_\_\_\_ a [PRO obbedire].*  
 'At five the general forced \_\_\_\_ to obey.'

To sum up, both English and Italian comply with *Bach's generalization*, as in both languages the object NP must be structurally represented: it must be phonetically realized in English, but not in Italian. Indeed, Italian allows the occurrence of a null, generic, arbitrary pronoun in a generic time state.

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<sup>19</sup> Examples (25)(26) are taken from Rizzi, 1986: 503, his examples (9)(10).

2. *Binding*: in line with Principle A<sup>20</sup> of the *Binding Theory*, the implicit object with arbitrary interpretation can be the antecedent of an anaphor. It is the case of the following sentences<sup>21</sup>:

- (27) *La buona musica riconcilia \_\_\_\_ con se stessi.*  
'Good music reconciles \_\_\_\_ with oneself.'
- (28) *Un bravo psicanalista può restituire \_\_\_\_ a se stessi.*  
'A good psychoanalyst can give back to oneself.'
- (29) *Non è chiaro [come [PRO parlare di se stessi]].*  
'It is not clear how to speak about oneself.'

*Se stessi* (themselves), i.e. the third person plural reflexive, acts as an anaphor, whose antecedent is not physically represented but it is structurally present in the object position as a null filler. As a consequence, this binding relation is licensed in Italian but not in English.

3. *Adjunct Small Clauses*: in Italian an adjunct small clause can modify the understood object, as the following examples<sup>22</sup> attest:

- (30) *Un dottore serio visita \_\_\_\_ nudi.*  
'A serious doctor visits nude([ + p]).'
- (31) *Di solito, Gianni fotografa \_\_\_\_ seduti.*  
'In general, Gianni photographs seated([ + pl]).'
- (32) *Di solito, quel famoso pittore ritrae \_\_\_\_ vestiti di bianco.*  
'In general, that famous painter portrays dressed([ + pl]) in white.'
- (33) *È difficile [PRO essere sempre allegri].*  
'It is difficult to be always happy.'

In these sentences, the small clause (*nudi*-nude, *seduti*-seated, *vestiti di bianco*-dressed in white, *allegri*-happy) presents a plural agreement and, therefore, it cannot refer to the subject (singular agreement) and cannot modify it. The plural agreement is associated to an arbitrary interpretation in Italian, which can only be assumed by an arbitrary null object, i.e. by an arbitrary *PRO*. The matter is different in English, where the small clause (*nude*, *seated*, *dressed in*

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<sup>20</sup> Principle A: 'Anaphors must be bound to a governing category' (Wratil and Gallmann, 2011: 1).

<sup>21</sup> Examples (27)(28)(29) are taken from Rizzi, 1986: 504-505, his examples (11)(12).

<sup>22</sup> Examples (30)(31)(32)(33) are taken from Rizzi, 1986: 505-506, his examples (14)(15).

*white, happy*) has no plural agreement and, as a consequence, it can easily modify the subject. In that case, the meaning of (30)(31)(32)(33) would be totally distorted. It follows that a structurally represented understood object is allowed in Italian but not in English.

4. *Argument Small Clauses*: Italian argument small clauses introduced by causative verbs have verb-governed subjects. They can be null subjects and can present the same interpretative and formal properties of null objects in adjunct small clauses. It is clear in the following examples<sup>23</sup>:

- (34) *Questa musica rende [ \_\_\_\_ allegri].*  
'This music renders \_\_\_\_ happy([ + pl]).'
- (35) *Certe medicine rendono [ \_\_\_\_ più intelligenti/giovani/calmi].*  
'Certain drugs render \_\_\_\_ more intelligent/young/calm([ + pl]).'
- (36) *Il comportamento di Gianni lascia [ \_\_\_\_ sconcertati/stupiti/meravigliati].*  
'Gianni's behavior causes-to-remain \_\_\_\_ disconcerted/puzzled/astounded([+ pl]).'

These sentences are ungrammatical in English because of the presence of the null filler in a V-governed NP position.

5. *Productivity*: the possibility of a missing object with arbitrary interpretation is only allowed in Italian. In English it has the typical restrictions of lexical processes: a lexeme and its synonyms can differ in licensing a missing object or not, as the following examples show:

- (37) a. ?*An unpopular law can incite \_\_\_\_ against the government.*  
b. \**An unpopular law can push \_\_\_\_ against the government.*

It can be affirmed that in Italian the possibility of a null object has the productivity of a true syntactic option, whereas it does not happen in English.

Rizzi's (1986) analysis of the two syntactic systems leads to the conclusion that the Italian understood object is syntactically "active": it works as a controller, as a binder, or as a subject of predication for adjunct and argument small clauses. By contrast, the null object in English is syntactically "inert" under the same conditions. As a

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<sup>23</sup> Examples (34)(35)(36) are taken from Rizzi, 1986: 507, his example (16).

consequence, an occurrence of null object in verb-governed position is allowed in Italian but not in English.

### 2.1.2 Properties of Arbitrary Null Objects

After having classified the null object as a generic pronoun, Rizzi (1986: 510) defines its features:

*Null Object* [+ pronominal, - anaphoric]

Contrasting *Principle A* of the *Binding theory*, the Null Object is not governed by any antecedent and, therefore, it is not anaphoric. It rather finds its governing category in V, as the previous examples attest. It can be noticed that the Null Object has exactly the same features of *pro*. Therefore, according to *Principle B*, the Null Object must be free in its domain just as *pro*. It can only have referential linking to a c-commanding NP outside its governing category (GC):

- (38) a.  $NP_i \dots [GC \dots pro_{i\dots}]$  (Rizzi, 1986: 510, his representation (23))  
b.  $*[GC \dots NP_i \dots pro_{i\dots}]$

Since the Null Object has an arbitrary interpretation, the referentially linked NP should be arbitrary as well. An arbitrary nominal element (*arb*), such as the German *man*, the French *on* and the Italian *si*, is characterized by specific features, which are resumed by Rizzi (1986: 512, his representation (27)) in:

- (39) *arb* [+ human, + generic, ± plural]

The first property of an *arb*, such as of the *arbitrary PRO*, i.e. [+ human], is justified by Rizzi (1986: 518, his example (39)):

- (40) a. *It is unclear [how [PRO to roll down the hill]].*

- b. *Certe innovazioni tecniche rendono [pro più efficienti].*  
 'Certain technical innovations render [*pro* more efficient ([+ pl])].'

The arbitrary element in (40) is unambiguously human. In (40a) *PRO* seems to be human because its controller, i.e. the implicit experiencer of *unclear*, is human as well. By contrast, in (40b) there is no human controller. However, *pro* is clearly human: “certain technical innovations render humans more efficient”. This analysis proves that [+ *human*] is an intrinsic property of the arbitrary interpretation.

The second property of *arb*, i.e. [+ *generic*], implicates that it can only occur in sentences with generic time reference. As far as the third property [ $\pm$  *plural*] is concerned, the number specification varies across languages. In Italian, as I have highlighted through examples (30)-(33), arbitrary interpretation is always identified with plural agreement.

In conclusion, it can be affirmed that the features of the Italian Arbitrary Null Object are:

- (41) *IT arb Null Object [+ human, + generic, + plural]*

### 2.1.3 Licensing and interpretation of *pro* in Object Position

Rizzi (1986: 519, his statement (40)) provides the following licensing principle for *pro*:

- (42) *pro* is governed by  $X^0_\gamma$

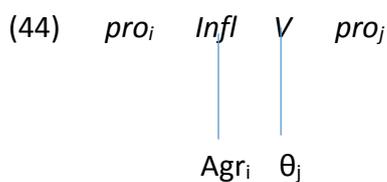
The principle claims that *pro* is licensed by a governing head of type  $\gamma$ , whose class can vary from language to language. Concerning the licensing of *pro* in object position, the governing verb belongs to the licensing class in Italian, but not in English. Moreover, the class  $X^0_\gamma$  includes both Infl and V in Italian, whereas it is empty in English.

In order to define the content of *pro*, it can be affirmed that it includes  $\phi$  features and other specifications, which are fully recoverable in the feature specification of a related binder. In concrete terms, the content of *pro* in subject position is recovered through the rich agreement specification of the licensing head Infl. In this way, *pro* is allowed to have specifications of person, gender, and number ( $\phi$  features) and, therefore, to function as a definite pronoun. In Italian and in some other *NS languages*, *pro* in subject position works as a definite pronoun except for one case: in impersonal *si* sentences, in which it is identified with *arb*. It is evident in the following example:

- (43) *pro<sub>arb</sub> si<sub>arb</sub> dorme troppo.* (Rizzi, 1986: 520, his example (42))  
 'People sleep too much.'

In (43) *pro* is linked to the arbitrary subject clitic *si* and assumes the usual specifications associated with *arb*: [*+ human, + generic, + plural*].

In Rizzi's (1986: 520) analysis concerning Italian, *arb* interpretation is the exceptional case for *pro* in subject position. Nevertheless, as he proved, *arb* is the norm in object position. On the contrary of subject position, the content of *pro<sub>arb</sub>* in object position is not determined through the specific features of the governing head V, i.e.  $\phi$  features, but rather through the intrinsic features of *arb*, i.e. [*+ human, + generic, + plural*]. Rizzi (1986: 521, his scheme (44)) proposes the following representation in order to justify his theory:

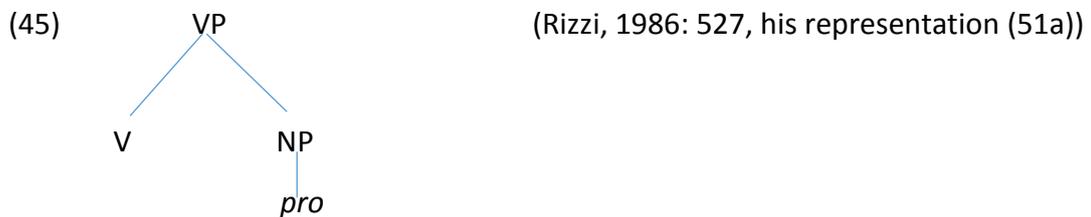


*Pro* in subject position is coindexed with Agr, while *pro* in object position is coindexed with a  $\theta$  element depending on the verb, which presents the features of *arb*.

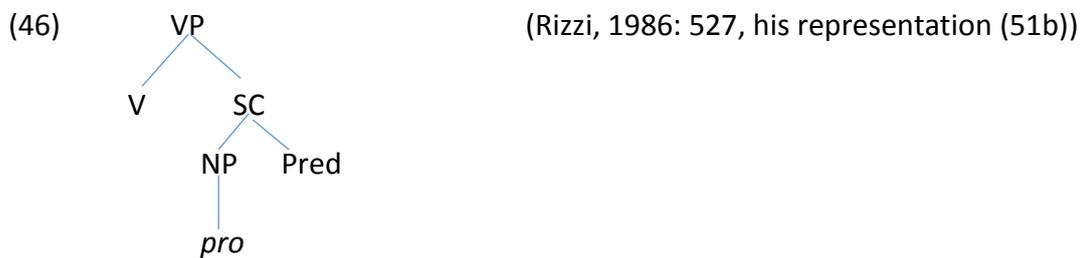
### 2.1.4 Null Expletive Subjects of Small Clauses

Rizzi (1986: 526) also considers cases of V-licensed *pro* not having an arbitrary interpretation. As it can be deduced from scheme (44), a null pronoun not coindexed with Agr, but with the  $\theta$  element depending on V, which does not have the features of *arb*, is an “empty” *pro*. According to Rizzi (1986: 526), a pronominal without content is basically an expletive.

As far as the syntactic representation of the *V-governed expletive pro* is concerned, it must be syntactically represented in order not to violate the *Projection Principle*. The representation should be:



Nevertheless, (45) would not have any sense, since *pro* has no content: it would be a nonargument. The solution to this issue is due to the substitution of NP with a small clause (SC). In other words, the expletive *pro* is licensed by V through the occurrence of an extraposed sentential complement:



Structure (46) is justified by Rizzi (1986: 527, his examples (52)(53)):

(47) *Gianni ritiene [pro probabile [che Mario venga]].*

'Gianni believes likely that Mario comes.'

(48) *Il tuo comportamento ha reso [pro improbabile [che Mario venga]].*

'Your behavior rendered unlikely that Mario comes.'

The same sentences are ungrammatical in English, as an overt expletive, e.g. *it*, would be required. By contrast, it can be affirmed that Italian licenses both a syntactically active null arbitrary object and a null expletive subject of small clauses.

As well as the constructions with extraposed sentential subjects, *expletive pro* can also occur in Italian in constructions with a postverbal subject NP and with atmospheric or temporal predicates. As Rizzi (1986: 528, his examples (54)(55)) shows, a temporal adjectival predicate presents a *pro expletive subject* in tensed clauses, but not in small clauses:

- (49) a. *pro è presto.*  
'(It) is early.'  
b. *pro è troppo tardi per tornare.*  
'(It) is too late to come back.'
- (50) a. \**Considero [pro presto].*  
'I consider (it) early.'  
b. \**Ritengo [pro troppo tardi per tornare].*  
'I believe (it) too late to come back.'

According to Chomsky's (1981, in Rizzi 1986: 528) definition, when the *expletive pro* depends on an extraposed sentential complement, it is called "nonargument", whereas, when it represents the expletive subject of a temporal adjectival predicate in tensed clauses, it is called "quasi argument".

A further type of null expletive in small clauses occurs in subject inversion structures. In this case, the expletive acts as a nonargument in preverbal subject position, as the example shows:

- (51) a. *Ritengo [suo fratello più intelligente].*  
'I believe his brother more intelligent.'  
b. *Ritengo [ \_\_\_\_ più intelligente suo fratello].*  
'I believe more intelligent his brother.'

In conclusion, it can be affirmed that the result of Rizzi's (1986) investigation attests that Italian, unlike English, licenses null V-governed NP, i.e. *Null Object*, with arbitrary interpretation or functioning as an expletive.

## 2.2 A peculiar interpretation of *referential pro*: the *Aboutness-shift Topic* as a licenser

An innovative analysis of the *NS* has been provided by Frascarelli (2007). Although she considers valid the hypothesis of the rich inflectional morphology in justifying the occurrence of *pro* in subject position, she also recognizes the limits of this view. In this perspective, Frascarelli (2007) proposes a new approach to the study of the licensing conditions of *thematic pro* in *consistent pro-drop languages* like Italian. She focuses especially on the use and interpretation of third person subjects in preverbal position. Frascarelli (2007) proves that the *referential NS* depends on syntax and discourse properties of Topic constituents, specifically of a particular type of Topic, i.e. the *Aboutness-shift Topic*<sup>24</sup>. Indeed, according to Frascarelli (2007), the *Aboutness-shift*

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<sup>24</sup> Frascarelli & Hinterhölzl (2007) identify three types of topics in the information structure (IS) of German and Italian. They are distinguished phonologically and are realized in different syntactic positions, showing different intonational and discourse properties:

- I) *Aboutness-shift topic* ("what the sentence is about"): the matter of concern, the focus of interest of the sentence. A constituent that is 'newly introduced, newly changed or newly returned to', according to Givón's (1983, in Frascarelli & Hinterhölzl, 2007: 88) definition. It represents a "shift" in the conversation, as it moves the addressee's attention from one focus of interest to another. It is characterized by the rising intonational sequence L\* (low) + H (high).
- II) *Contrastive topic*: a constituent that creates alternatives, i.e. oppositional pairs, with respect to other topics. It is marked by the H\* (high) tone.
- III) *Familiar topic*: a no-stressed constituent, realized in pronominal form, which is used for topic continuity, in a sense that it is repeated several times as a familiar element. It is marked by the L\* (low) tone.

On the basis of these properties, F&H (2007: 89, their representation (3)) affirm that the three topics do not recur casually, but that they are rather structured by means of the following hierarchy:

- *Topic Hierarchy*
- |                             |                   |                |
|-----------------------------|-------------------|----------------|
| Shifting topic [+aboutness] | Contrastive topic | Familiar topic |
|-----------------------------|-------------------|----------------|

*Topic* gives referential value to *pro*. In other words, the *NS* pronoun in tensed clauses has the same function of the clitic pronoun in *Topic* constructions: as a consequence, they are pronominal variables. By means of the following assumption, Frascarelli (2007: 694, her statement (3)) affirms that the features of *Thematic pro* are provided by its pronominal variable, i.e. the respective *Aboutness-shift Topic*:

(52) A thematic *NS* is a pronominal variable, the features of which are valued (i.e. 'copied through matching') by the local *Aboutness-shift Topic*.

In order to justify her theory, Frascarelli provides a series of examples, among which the following passage taken from a conversation in which a speaker, who works in a radio station, is talking about her boss with one of her colleagues:

(53) [*il mio capo*]<sub>i</sub> come diceva Carlo [...] *pro*<sub>i</sub> è un exreporter [...] *pro*<sub>i</sub> è stato in giro per il mondo [...] *pro*<sub>i</sub> mi ha preso in simpatia solo che siccome *pro*<sub>i</sub> è mostruosamente lunatico, è capace che domani non *gli*<sub>i</sub> sto più simpatica e *pro*<sub>i</sub> mi sbatte fuori [...] comunque a parte questo *pro*<sub>i</sub> mi diverte moltissimo - poi c'è *M.F.*<sub>k</sub> che è questo che appunto sta facendo tipo praticantato per poi andare a fare l'esame da giornalista/ fra un anno e mezzo quindi *lui*<sub>k</sub> c'ha quanto meno la garanzia che *pro*<sub>k</sub> può rimanere lì finché *pro*<sub>k</sub> non farà l'esame cioè ehm *lui*<sub>i</sub> poi gli deve fare/scrivere le referenze...  
 [*my boss*]<sub>i</sub> as Carlo used to say [...] *pro*<sub>i</sub> is a former reporter [...] *pro*<sub>i</sub> has been all over the world [...] *pro*<sub>i</sub> likes me, however, as *pro*<sub>i</sub> is extremely moody, maybe tomorrow *pro*<sub>i</sub> does not like me any longer and *pro*<sub>i</sub> fires me [...] anyway, apart from this, *pro*<sub>i</sub> is really funny then there is *M.F.*<sub>k</sub> who is practicing for his exam as a journalist/ in one and a half years, so at least *he*<sub>k</sub> has a guarantee that *pro*<sub>k</sub> will stay there till *pro*<sub>k</sub> has made the exam because *he*<sub>i</sub> then must make/ write a report...

At the beginning of the paragraph, the overt subject *il mio capo* ("my boss") is the *Aboutness-shift Topic*, as it represents the new element introduced in the discourse. In pronouncing /kapo/ in that syntactic position, the tone of the first syllable is L\*, while the tone of the second syllable is H\*. Hence, the intonational structure of the topic is L\* + H (Figure 1, Frascarelli, 2007: 704, her figure (5)). *The Aboutness-shift Topic* is then repeated in the series of following sentences: once it is used in form of dative clitic (*gli* – him), most times in form of *NS*. In the middle of the passage, a shift of topic occurs and, therefore, another *Aboutness-shift Topic* is introduced, i.e. the overt subject *M.F.*. This topic is then presented in form of strong subject pronoun (*lui* – he) and in form of *pro*. The pronoun *lui* is characterized by the same tonal event of *capo* (Figure 2, Frascarelli, 2007: 704, her figure (6)).

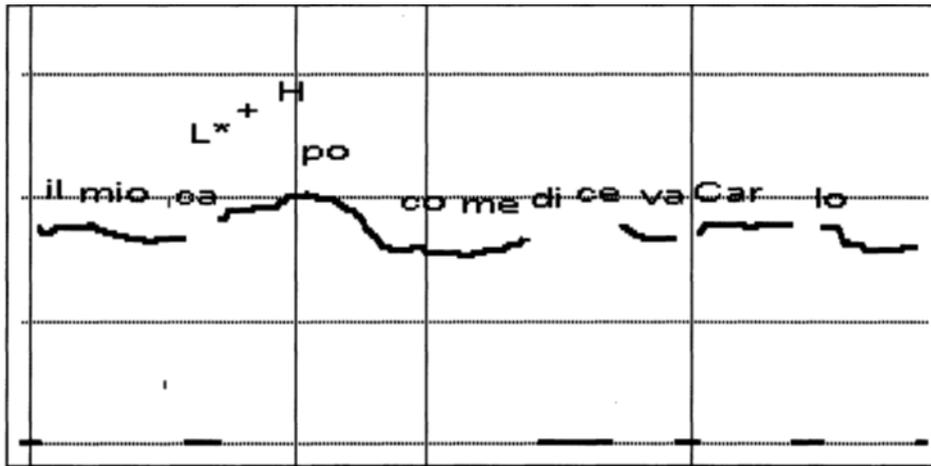


Figure 1

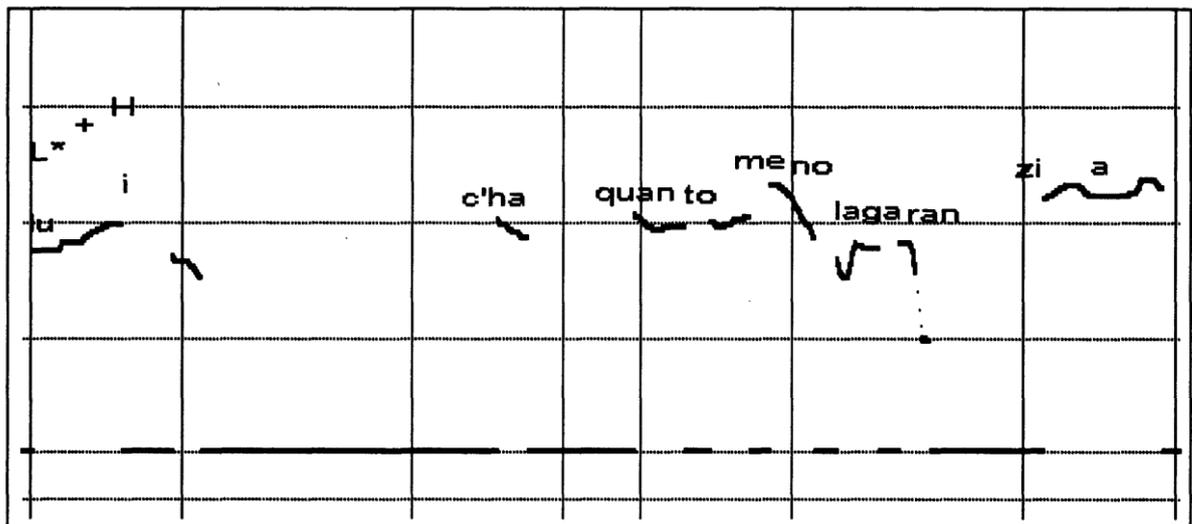


Figure 2

The analysis of the passage shows that the strong pronoun, the clitic and the *NS* are used as pronominal variables. Since *pro* is always interpreted unambiguously in relation with the closest *Aboutness-shift Topic*, Frascarelli (2007: 704) maintains:

“[...] the interpretation of referential *pro* does not depend on the agreement features of the licensing head, but on a matching relation with the local *Aboutness-shift Topic*”

In other words, Frascarelli affirms that the licensing conditions for the occurrence of *referential pro* are not dependent on the rich inflectional morphology of the governing verb, but they are rather provided through the matching relation with the closest *Aboutness-shift Topic*.

As far as overt subjects are concerned, they are not only used in case of topic shift, but can also have different discourse functions and be characterized by different tonal structures. For instance, overt subjects can have the function of Focus. *Preverbal Focus* is used in Italian in order to emphasize or to create a contrast. Nevertheless, it cannot be an antecedent for *pro*. The following conversation provided by Frascarelli (2007, 711, her example (20)) offers a concrete example of the occurrence of Focus:

- (54) A) [**Aboutness-shift Topic: the boss<sub>k</sub>**] *ma a te adesso pro<sub>k</sub> ti paga?*  
B) *ancora no comunque l'ultima volta pro<sub>k</sub> m'aveva detto appunto che pro<sub>k</sub> aveva intenzione di cominciare a farmi pagare se pro<sub>k</sub> era soddisfatto di quella trasmissione là [...]*  
A) *tu l'hai chiesto o te l'ha detto lui<sub>k</sub>?*  
B) *lui<sub>k</sub> me l'ha detto io non ho mai parlato di soldi, l'ha sempre tirato fuori lui<sub>k</sub> il discorso*  
A) *does pro<sub>k</sub> pay you now?*  
B) *not yet, anyway, last time pro<sub>k</sub> told me that pro<sub>k</sub> had intention to start to give me some money if pro<sub>k</sub> was satisfied with that radio program [...]*  
A) *was it you who asked him or was it him who told you?*  
B) *he<sub>k</sub> told me, I never spoke about money, it is always him<sub>k</sub> who starts this topic*

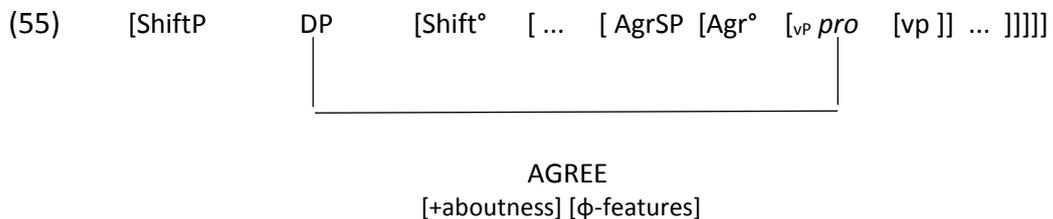
*The boss* is the *Aboutness-shift Topic* of the conversation. The series of NSs at the beginning are strictly related to this topic. Then, another overt subject is introduced: the strong pronoun *lui* (he). The latter is not subjected to any shift in the discourse, as it is always referred to *the boss*. *Lui* is overt just because it is in contrast with the other strong subject pronoun, i.e. *io* (I). Therefore, it can be attested that *lui* is identified as the *Focus* of the conversation. Unlike the *Aboutness-shift Topic*, *Focus* is characterized by a H\* tone.

In conclusion, it can be affirmed that *pro* is a non-focused pronoun, which when realized is represented as phonologically weak and characterized by a L\* tone. *Pro* does not provoke a shift in the conversation, but is identified by the closest *Aboutness-shift Topic*, which is its coreferent. Whenever a *referential pro* occurs, an *Aboutness-*

*shift Topic* is present in its C-domain. Therefore, according to Frascarelli's (2007) study, the occurrence of NS is independent on verbal morphology and only dependent on discourse and intonational requirements.

### 2.2.1 *Aboutness-shift Topic* and *pro*: the matching relation

Concerning the conjunction between the antecedent-Topic and the NS, Frascarelli (2007: 717-718) considers Agree responsible of their matching relation. She takes into account the possibility of a *long-distance Agree* between the *Aboutness-Shift head* and *pro*. As a result, *pro* assumes the  $\phi$ -features of the *Shift DP*. The matching relation can be represented as follows (Frascarelli, 2007: 718, her scheme (30)):



The shared  $\phi$ -features, which are provided by VP, account *EPP* and Case (subject). In this perspective, Frascarelli (2007: 719, her statement (31)) advances a re-formulation of Chomsky's (1981) *Avoid Pronoun principle*<sup>25</sup>:

- (56) "Avoid strong pronoun, whenever it agrees with the local Aboutness-shift Topic"

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<sup>25</sup> see footnote 4.

The new version of the principle states that strong pronouns must be avoided if they are connected through Agree to an *Aboutness-shift Topic*. Moreover, on the basis of Rizzi's (2006: 120) *Subject Criterion*<sup>26</sup>, Frascarelli (2007: 721, her statement (37)) proposes a criterion in order to define the *Aboutness-shift Topic*:

(57) *Topic Criterion*

- a) [+aboutness] is connected with an EPP feature in the high Topic field that yields a specific discourse-related property, namely 'Aboutness'.
- b) The [+aboutness] Topic matches with an argument in the main clause through Agree.
- c) When continuous, the [+aboutness] Topic can be null (i.e., silent).

According to (a), 'Aboutness' represents a specific discourse-related property, i.e. "what the sentence is about". It is one of the EPP features that characterize the high Topic position in the CP-phase. 'Aboutness' allows the Topic constituent to be merged in Spec,ShiftP. The Aboutness Topic is connected with an element (strong/weak pronoun) in the main clause by means of Agree, as (b) affirms. Finally, according to (c), when the Aboutness Topic is repeated in the sentence, its copies can be phonologically null (*pro*).

Finally, Frascarelli (2007: 722, her statement (38)) provides the following definition of *Referential pro*, which highlights the transmission of features from the *Aboutness-shift Topic (YP)* to *pro*:

(58) *(Referential) NS Interpretation*

"Let YP be the *Aboutness-shift Topic* in the local C-domain of an occurrence of *pro*: then *pro* - sitting in edge position - obtains the grammatical specification of the features on Y\* through a matching (Agree) relation".

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<sup>26</sup> The *Subject Criterion* claims: "Subjects occur in the higher part of the inflectional field, higher than Agr, or whatever head carries the agreement features if independent agreement heads do not exist". In other words, in line with the EPP, subject occupies the higher position in relation to Infl.

## 2.3 Referential *pro* in Old Italian

### 2.3.1 A comparison with Modern Italian

One of the main *consistent NS languages*, i.e. Italian, has been recently observed from a diachronic perspective by Cognola & Walkden (2019). The two linguists propose a different approach in studying the licensing conditions for *referential pro* in Old Italian (XIII century). Firstly, they consider Old Italian (OI) a *partial NS language*, which is characterized by *asymmetric pro-drop*. Indeed, they prove that NS occurs differently in OI according to clause type. Cognola & Walkden (2019: 10, their examples (13)(14)) propose two examples from Old Milanese and Old Florentine in order to show that in these and other Old Romance languages *pro* was possible in main but not in embedded clauses:

- (59) Quand **tu** veniss al mondo, se **tu** voliss  
When you came to the world, if you wanted  
pensar, negota ge portassi \_\_, negota n  
to think about it, nothing there brought.2SG nothing from there  
poi \_\_ portar  
can.2SG take  
'When you came into the world, if you think about it, you didn't bring anything, and nothing you can take away.'  
(Old Milanese, Benincà 2006: 68; *Bonvesin*, 179)

- (60) E così ne provò \_\_ de' più cari ch'**elli** avea.  
And so of-it tested.3SG of-the most dear that-he had  
'So he tested some of the best friends he had.'  
(Old Florentine, Benincà 2006: 68; *Testi fiorentini*, 74)

In (59) and (60) the subject pronouns *tu* (you) and *elli* (he) are always overt in secondary clauses, whereas they are silent in main clauses. The use of overt pronouns in embedded clauses is obligatory in OI and does not have any emphatic role.

This condition represents the main difference between OI and Modern Italian. Indeed, the two languages show an opposite *NS* distribution: Modern Italian, unlike OI, licenses *NS* both in main and embedded clauses. However, *NS* is facultative in main clauses but obligatory in embedded ones, whenever *NS* is coreferent with a matrix subject in main clauses. Therefore, it is much more common in present-day Italian to find an overt subject in main clauses than in secondary ones. Furthermore, an overt subject in Modern Italian always has an emphatic/ focalized value. Cognola & Walkden (2019: 4, their example (2)) prove that a co-referred overt subject in embedded clause is agrammatical in Italian:

- (61) Il professore<sub>j</sub> ha parlato dopo che lui<sub>?j/i</sub> è arrivato a casa  
the professor has spoken after that he is arrived to home  
'The professor spoke after he came home.'

The previous sentence is grammatical only if a subject shift occurs between main and embedded clause and, as a consequence, the overt subject pronoun *lui* (he) does not refer to *il professore* (the professor).

### 2.3.2 Licensing of *pro* in Old Romance languages

The opposite behavior of OI with respect to *pro-drop* is justified by Adams (1987, in Cognola & Walkden, to be published, *Pro-drop in interrogatives across older Germanic and Romance languages*: 3), who analyses the licensing conditions of *asymmetric NS languages*, in particular of Old French. She attributes the higher recurrence of *pro* in main clauses rather than in subordinate clauses to the different syntactic structure of the two clause types. Firstly, Adams (1987, in C & W: 3) affirms that Old French, just as OI and the other Old Romance languages, is a V2 language, which involves V-to-C movement via Infl. In other words, in V2 languages the  $\phi$  features of V are merged and moved to the C position, which should be occupied by the subject. When the C

position is free, i.e. in main clauses, *pro* takes the subject position and assumes the  $\phi$  features through Infl, in line with Rizzi's (1986) analysis. Nevertheless, when the C position is occupied by a complementizer, i.e. in subordinate clauses, *pro* cannot occupy any position and, as a result, overt subject cannot be replaced. According to den Besten (1989, in C & W, *Pro-drop in interrogatives across older Germanic and Romance languages*: 3), the V-to-C movement is blocked when a complementizer occupies C. In this way, Adams (1987, in C & W: 3) offers a concrete explanation of the *pro-drop asymmetry* between main and embedded clauses in V2 languages.

### 3. *Pro-drop* in German

#### 3.1 Modern Standard German: traces of *pro* in a traditional *non-NS-language*

##### 3.1.1 *Pro* as non-argumental expletive omission

The traditional generative accounts considered the German language extraneous with respect to the *referential pro-drop* phenomenon. In this perspective, German was therefore estimated to be a *non-NS-language*. Nevertheless, current studies on the *expletive pro*<sup>27</sup> have brought to reexamine some typical *non-NS-languages*, which have been more properly identified as *semi NS languages*. It has been indeed proved that German licenses *pro* in a specific case, i.e. in form of non-argumental expletive omission, which means when the expletive does not bear any  $\phi$ -role and does not present arguments concerning weather verbs and existential construction.

Abraham (1992) provides a relevant account in relation to the occurrence of expletives and of the *expletive pro* in German. Firstly, Abraham (1992: 1) focuses on non-anaphoric expletives in Modern German (MG) and identifies five cases in which they occur:

- a. with strictly intransitive ("null-place") impersonal verbs:

(62) *Es schneit*  
"it snows"

(63) *Es ist kalt*

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<sup>27</sup> see paragraph 1.3.

"it is cold"

- b. with impersonal verbs governing dative or accusative objects:

(64) Es graut ihm/ihn vor dir  
It dreads him (DAT/ACC) before you  
"he is afraid of you"

- c. with impersonal passives:

(65) Es darf gelacht werden  
It may laughed be  
"there may be laughing"

(66) Es füttern sich Löwen nicht ohne Risiko  
It feed lions not without danger  
"Feeding lions is not without risk"

- d. with extraposed subject clauses:

(67) Es überrascht dich, daß...  
"It surprises you that..."

- e. with themeless clauses:

(68) Es ritten 3 Reiter zum Tor hinaus  
It rode three riders by the door out  
"Three riders rode past the door"

According to Abraham (1992), the expletive *es* in (a-c) is a "not thematically filled subject", i.e. a pragmatically empty subject. By contrast, *es* in (d-e) is a "referential clausal subject", since it refers to a following element.

In all above-mentioned examples, the expletive appears in V2 clauses. The situation is different in V1 clauses, as the following examples prove:

(69) *Schneit \*(es)?*  
"Is it snowing?"

(70) *Überrascht (es) dich, daß...*  
"Does it surprise you that"

(71) *Graut (es) ihm/(es) ihn vor dir?*  
"Are you afraid of him?"

(72) *Darf (\*es) gelacht werden?*  
"Is it permitted to laugh?"

(73) *Füttern (\*es) sich Löwen leicht?*

Feed lions easily  
"Is it easy to feed lions?"

(74) *Ritten (\*es) drei Ritter zum Tor hinaus?*  
"Did 3 riders ride past the door?"

The expletive must not be dropped in (69), whereas it is optional in (70)(71). By contrast, it must be deleted in (72)(73)(74). In light of these considerations, it can be assumed that *pro* is licensed in MG in the following typologies of V1 clauses at the occurrence of:

- extraposed subject clauses;
- impersonal passives;
- impersonal verbs governing dative or accusative objects;
- themeless clauses.

Furthermore, according to Abraham's (1992: 2) analysis concerning the licensing of *NS* in MG, three subtypes of clauses are identified:

- SUBTYPE I:

(75) *Ist (es) bald Weihnachten?*  
"Is it Christmas soon?"

(76) *Ist (es) dir warm genug?*  
Is it you (DAT) warm enough  
"Is it warm enough for you?"

- SUBTYPE II:

(77) *Wichtig ist (es), daß ...*  
"Important is (\*it) that..."

- TYPE III:

(78) *Darf (\*es) gelacht werden?*  
May it laughed be  
"Is it permitted to laugh?"

(79) *Überrascht (es) dich, daß ...?*  
Surprises it you that  
"Does it surprise you that...?"

(80) *... weil (es) sich Löwen nicht so einfach füttert*  
because it itself lions (ACC) not so easily feeds

“because lions do not eat so easily by themselves”

Not all above-mentioned subtypes are V1 clauses. However, *pro* is allowed in all of them, since the expletive subject “es” appears in clause-internal position. By contrast, when “es” occupies the first position in the clause, it must be overtly expressed. The contraposition is clear in the following examples<sup>28</sup>:

(81) PRESENTATIVE:

- a. *Gestern sind (\*es) Gäste gekommen.*  
yesterday are it guests come
- b. *Es sind die Eltern gekommen.*  
it are the parents come

(82) METEOROLOGICAL:

- a. *Gewittert \*(es) hier viel?*  
storms it here a lot
- b. *Es gewittert hier viel.*  
It storms here a lot

(83) IMPERSONAL PASSIVE:

- a. *Wird (\*es) viel schigefahren?*  
Is it a lot skied
- b. *Es wird hier viel schigefahren.*  
It is here a lot skied

(84) EXTRAPOSITION:

- a. *Ist (\*es) deutlich, was ich meine?*  
is it clear what I mean
- b. *Es ist nun deutlich, was ich meine.*  
It is now clear what I mean

(85) MEDIAL VOICE:

- a. *Löwen füttert \*(es) sich nicht leicht*  
lions-ACC feeds it REFL not easily
- b. *Es füttert sich Löwen nicht leicht*

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<sup>28</sup> Examples (81)(82)(83)(84)(85) are taken from Abraham, 1992: 8-9, his examples (16)(17).

it feeds REFL lions-ACC not easily

In all sentences (b) the expletive appears in clause-initial position and is phonologically expressed. On the contrary, it is obligatorily omitted (*null expletive subject*) in all sentences (a)<sup>29</sup>, where it should occupy the clause-internal position.

As a result, Abraham (1992: 9) affirms that the expletive does not have a structurally licensed subject position in MG, but rather a structurally licensed Topic position to be filled. It means that the expletive “es” occurs in [Spec, CP], whereas it can be absent in [Spec, IP], where INFL assumes the agreement features of “es”.

### 3.1.2 *Context-linked subject drop and Out of the Blue Drop as triggers for NS*

A further study concerning *pro-drop* has been conducted by Trutkowski (2011), who provides an innovative contribution to generative grammar through analyzing some cases in which *referential pro* is allowed in German.

Firstly, Trutkowski (2011: 206) recognizes in the process of *topic drop* the trigger of *referential pro* in German, according to Cardinaletti (1990) and Rizzi's (1994) interpretation. It has been indeed proved that both subject and object can be omitted in all persons, when they are topical and situated in SpecCP. The process is licensed in presence of a marked antecedent within the discourse, which works as a topical referent. The following example<sup>30</sup> attests the occurrence of *topic drop* in colloquial MG:

(86) *Kennst du den Hans?*

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<sup>29</sup> Except for the case of weather-verb and medial-voice clauses.

<sup>30</sup> Example (86) is taken from Trutkowski, 2011: 206, her example (1).

Know you the Hans?

- a. *Na klar, \_\_\_ is' mein Nachbar.*  
Of course, [he] is my neighbour.
- b. *Ne, \_\_\_ kenn' ich nicht.*  
No, [him] know I not

(86a) shows a case of 3<sup>rd</sup> person null subject in SpecCP with a topical function, whereas (86b) presents a case of 3<sup>rd</sup> person null object under the same conditions. Both null subject and object refer to the topical antecedent *den Hans* ("the Hans"), which agrees in person and number features, but not necessarily in case, with the omitted elements. If the referent is not contextually given, topic drop is ungrammatical, as example (87)<sup>31</sup> proves:

- (87) a. \* \_\_\_ *Is' mein Nachbar.*  
b. \* \_\_\_ *Kenn' ich nicht.*

Nevertheless, the situation is different with 1<sup>st</sup> and 2<sup>nd</sup> person null subjects. Unlike 3<sup>rd</sup> person, Trutkowski (2011: 207) indeed advances that *NS* is licensed in 1<sup>st</sup> and 2<sup>nd</sup> persons without any antecedent. She provides the following example<sup>32</sup> to justify her theory:

- (88) a.  $\emptyset$  *Komme/Kommst/\*Kommt am besten nachher vorbei* (1./2./\*3. Sg.)  
[I/You/\*He,She,It] Come/Come/Comes at best later along
- b.  $\emptyset$  *Kommen/Kommt/\*Kommen am besten nachher vorbei* (1./2./\*3. Pl.)  
[We/You-pl/\*They] Come/Come/Come at best later along
- 'It would be best if I/you/he,she,it/we/you/they came along later.'

Evidences of this phenomenon, which Trutkowski calls *Out of the Blue Drop* (OBD), can only be found in 1<sup>st</sup> and 2<sup>nd</sup> person null subjects, not in null objects. The following examples<sup>33</sup> have been chosen by Trutkowski (2011: 207) in order to support her assumptions:

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<sup>31</sup> Example (87) is taken from Trutkowski, 2011: 206, her example (2).

<sup>32</sup> Example (88) is taken from Trutkowski, 2011: 207, her example (3).

<sup>33</sup> Example (89) is a news heading taken from

(89) *Wolfram Müller – ∅ Nutzen jetzt unsere Stärken*  
Wolfram Müller – [We] exploit now our strengths

(90) *∅ Bist mir so nah*  
[You] are me so close

(91) *Dann: „Die lässt sich die Haare trotzdem so schneiden. ∅ Kennst sie doch.“*  
Then: “She gets REFL the hair nevertheless in this way cut. [You] know her”

The 1<sup>st</sup> person plural is omitted in (89), while the 2<sup>nd</sup> singular is omitted in (90)(91).

Trutkowski’s (2011: 212) hypothesis concerning the licensing conditions for OBD consists in affirming that this process only affects non-syncretic verbal inflections. These verbal forms distinctly mark person and number features of the subject, i.e. their properties are not ambiguous with respect to other forms.

### 3.1.3 OBD versus *pro-drop*

As emerged above, *Out of the Blue Drop* consists in the omission of 1<sup>st</sup>/2<sup>nd</sup> person referential null subjects in SpecCP of a finite V2 clause. Yet, Trutkowski (2011) does not consider OBD as a form of *pro-drop*, but rather as a distinct phenomenon. Its licensing conditions are indeed limited with respect to *pro*. Hence, OBD in Modern Standard German cannot occur in the “Mittelfeld” (internal position in a clause), in contrast to *pro-drop* in most Romance languages and in Old High German, which are recognized as *full pro-drop languages*. It is clear in the comparison between OHG and MG:

(92)<sup>34</sup> *a. /quidis zi uns thesa parabola/* (Axel 2007: 308, ex. (25a5))  
say<sub>2SG</sub> to us this parable

---

<http://www.deutscher-leichtathletik-verband.de/index.php?NavID=1&SiteID=28&NewsID=21594> (Trutkowski, 2011: 207, her example (4)). Example (90) is a song title (Trutkowski, 2011: 207, her example (5a)). Example (91) is a DWDS corpus (BZ, 22.01.2005, S.3, quoted in Trutkowski, 2011: 207, her example (5b)).

<sup>34</sup> Example (92) is taken from Trutkowski, 2011: 208, her example (6).

'are you telling this to us?'

- b. \**Wollt pro uns Märchen erzählen?*  
*Will [you<sub>PL</sub>] us fairytales tell?*  
[=Are you kidding us?]

(92b) is not a V2 clause and, therefore, *OBD* cannot be realized. However, even in V2 clauses, *OBD* is not allowed when the prefield is occupied by another element, e.g. a time adverbial, since *pro* cannot be situated in SpecCP. The following example<sup>35</sup> shows this restriction:

- (93) \**In 20 Minuten sind pro wieder da.*  
In 20 minutes are [we] again here.

For the same reason, *OBD* cannot affect embedded clauses, since the first position is occupied by a complementiser, as the example<sup>36</sup> proves:

- (94) \**Ich glaube, dass pro komme später*  
I think/believe, that [I] come later

As well as the distinction from *pro-drop* in the narrower sense, it can also be assumed that *OBD* is a different phenomenon with respect to *context-linked subject drop*, such as *topic drop* and *diary drop*. The examples<sup>37</sup> below can be wrongly interpreted as instances of *topic drop*:

- (95) *[[Hans] und [ich]] haben den Film schon gesehen.*  
Hans and I have the film already seen

a. *∅ komme deshalb etwas später.*  
[I] come therefore a bit later

b. \**∅ kommt deshalb etwas später.*  
[He] comes therefore a bit later

- (96) *[[Hans] und [du]](, ihr) seid ja schon seit 20 Jahren zusammen.*  
Hans and you(, you-<sub>pl</sub>) are indeed already for 20 years together

a. *∅ Kannst ihm wohl nichts mehr vormachen, oder?*  
[You] cannot him probably nothing more put over, right?

b. \**∅ Kann dir wohl nichts mehr vormachen, oder?*

<sup>35</sup> Example (93) is taken from Trutkowski, 2011: 208, her example (7).

<sup>36</sup> Example (94) is taken from Trutkowski, 2011: 208, her example (8).

<sup>37</sup> Examples (95)(96) are taken from Trutkowski, 2011: 208, her examples (9)(10).

[He] cannot you probably nothing more put over, right?

[[Hans] und [ich]] represents a double topical referent in (95), whereas [[Hans] und [du]] represents a double topical referent in (96). Nevertheless, they do not work as antecedents, as their two coordinated arguments, i.e. “Hans und ich”/ “Hans und du”, are singled out in (a) and (b). Therefore, it can be affirmed that a topical subject shift occurs in (a) and (b) and *topic drop* cannot be realized. Yet, clauses (a) result grammatical both in (95) and (96). Excluding the *topic drop* phenomenon, null subjects must be licensed by another triggering factor in these two clauses. According to Trutkowski (2011: 208), the licensing phenomenon is the *OBD*: a *NS* is indeed allowed in the 1<sup>st</sup> and 2<sup>nd</sup> person singular (95a, 96a), even without any antecedent. By contrast, a *NS* is not possible in the 3<sup>rd</sup> person singular (95b, 96b).

*OBD* is also proved to be different from *diary drop*. The latter mostly interests English in written forms, such as diaries, telegrams, letters, autobiographies, emails and text messages. The following passage<sup>38</sup> attests this process:

(97) [*ec*<sub>1</sub>] *Came to England a couple of days ago, [*ec*<sub>1</sub>] thought I've only got one brother, blood's thicker than water, I'll pay a visit. [*ec*<sub>1</sub>] Called at Malbite Street, [*ec*<sub>1</sub>] got the address from Mrs Whatever-hername-is, [*ec*<sub>3</sub>] said it was care of Rider. Rider, I thought, I know that name, it's Geoff's friend and employer Billy. [*ec*<sub>3</sub>] Doesn't call himself Billy any more, though.*

(Symons, Julian, *The Plot against Roger Rider*, datum from Haegeman (2007), her example (5b))

Most subjects are omitted in the sequence of clauses in (97). This kind of *pro-drop* is attributed in particular to the 1<sup>st</sup> person singular, as the following examples<sup>39</sup> show:

(98) a. [*ec*<sub>1sg/\*1pl/\*2/\*3</sub>] *Wish you were here* (Song title of Pink Floyd)

b. [*ec*<sub>1sg/\*1pl/\*2/\*3</sub>] *Feel so real* (Song title of Steve Arrington)

According to a pragmatic interpretation, the subject of the song titles in (98a, b) is unambiguously “I”, even though, grammatically, it could also be “we”, “you”, “they”.

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<sup>38</sup> Examples (97) is taken from Trutkowski, 2011: 210, her example (14).

<sup>39</sup> Examples (98) is taken from Trutkowski, 2011: 210, her example (16).

Even in the sentence<sup>40</sup> below, the omitted subject cannot be interpreted as “we”:

(99) \* *Peter Smith* – [*ec*<sub>1pl</sub>] *Will now deploy our strengths.*

Example (99) is the equivalent in English of (89), where the omission of the 1<sup>st</sup> person plural was allowed by means of *OBD*. It proves that *diary drop* and *OBD* are two distinct phenomena.

### 3.2 A Germanic *NS language*: Old High German

As previously established, it is proper to consider Modern Standard German a *semi pro-drop language*, just in view of its licensing condition for *non-argumental expletive omission*. Yet, the situation was different in historical times. In earlier Old High German (8<sup>th</sup> – 9<sup>th</sup> century), indeed, *referential pro-drop* was possible in most cases. It did not only occur in SpecCP position in form of *topic drop* and *diary drop*, but also in the “Mittelfeld” as a pure *pro-drop* process. As a result, it can be affirmed that OHG was a *pro-drop language*.

Abraham (1992: 4-5, his examples (10)(11)(12)) provides the following classification of examples from OHG, in which the subject pronoun is omitted. The OHG clauses are compared with the MG translation:

- (100) NO THEMATIC SUBJECT
- Weather verbs
- a. *noch regenot nicht mé*  
und **es** regnete nicht mehr  
'and it did not rain anymore'
- b. *duo morgan uuarth*  
als **es** Morgen wurde

---

<sup>40</sup> Examples (99) is taken from Trutkowski, 2011: 210, her example (18).

when-morning-became ('when it dawned')

- c. *so heiz wirt ze sumere*  
so heiß wird **es** Sommers  
so-hot-turns-in the summer

Verbs of individual body experience

- d. *dar dunchet tir rehto*  
da dünkt **es** dich richtig ...  
there-deems-you<sub>DAT</sub>-correct...
- e. *thaz himo hungreda ande thursta, daz ...*  
daß ihn **es** (danach) hungerte und dürstete, daß...  
that-him<sub>DAT</sub>-hungered-and-thirsted-that ... ('that he hungered  
and thirsted that...')
- f. *... so nan lústa*  
sofern **es** einen gelüftet  
if-one-lusts ('If someone should find pleasure in')

(101) EXTRAPOSED SUBJECT CLAUSES

- a. *... ioh dhar ist offenliihost chisaget, huueo ...*  
... immerdar wird **es** ganz deutlich gesagt, wie ...  
... always-is-very explicitly-said-how...
- b. *uuar ist, dhaz ...*  
wahr ist (**es**), daß  
true-is-that ('It is true that')
- c. *bi thiu ist nu báz . . . , thaz ...*  
um dessen willen ist **es** nun besser ..., daß  
therefore-is-nowbetter-that

(102) PURELY RHEMATIC, PRESENTATIVE CLAUSES – IMPERSONAL  
PASSIVES AND ERGATIVE CONSTRUCTIONS

- a. *... wanta iu nu not wirdit*  
warum **es** euch jetzt mühsam wird  
why-you<sub>DAT-PL</sub>-now-necessity-becomes ('why it will be necessary  
for you')

- b. *not ist manne*  
 Mühe ist **es** dem Menschen  
 trouble-is-man<sub>DAT</sub> ('It is troublesome for man')
- c. *thó tag uuás giuuortan, ...*  
 da **es** Tag geworden war  
 when-day-was (had)-become ('when it had become daylight')
- d. *huuanta in ist (gageban ze) archennenne*  
 denn ihnen ist **es** gegeben zu erkennen  
 since them<sub>DAT-PL</sub>-is-given-to-recognize
- e. *thémo ist giwisso irdéilit*  
 dem ist (**es**) sicher entschieden  
 him-is-certainly-decided ('for him it is no doubt decided')

In all above OHG clause typologies *NS* is allowed, while in the MG translations subject pronouns cannot be silent and are expressed in form of expletives. The comparison highlights the huge diffusion of the *pro-drop* phenomenon in OHG with respect to MG.

Although written attestation of autochthonous prose texts in OHG is hard to find, Old High German translations from Latin sources are in fact available. Axel & Weiß (2011) base their study of *pro-drop* in OHG on three OHG translations: *Isidor* (ca. 790/800, South-Rhine-Franconian), the *Monsee Fragments* (ca. 800, Bavarian) and *Tatian* (ca. 830, East Franconian). Axel & Weiß (2011: 22, their example (1)) show through the following examples that OHG allowed *NSs* even in the internal position of clauses:

- (103) *In dhemu druhtines nemin archennemes father* (Isidor 279f.)  
 In the Lord's name recognise<sub>1.PL</sub> father  
 'in the name of the Lord we recognize the Father'  
 (*In persona enim domini patrem accipimus*)
- (104) *nu uuizumes thaz thu allu uueist* (Tatian 289, 25)  
 now know<sub>1.PL</sub> that you all know  
 'now we know that you know all things'  
 (*nunc scimus quia scis omnia*)

As in the original Latin versions, in (103)(104) the *referential subject pronouns* are not overtly realized. Since Latin was a *full pro-drop language*, it is easy to assume that the distribution of *NS* in written OHG, which is accessible in form of translations from Latin, is an imitation of the Latin distribution. Yet, syntactic dissimilarities between the two languages have been highlighted in recent generative approaches. Contrasting the loan syntax hypothesis, valid theories regarding the licensing and interpretation of *pro-drop* in OHG have been provided.

### 3.2.1 *Pro-drop* licensing assumptions: the verbal morphological richness and the pronominal agreement

The most accredited generative hypothesis with regard to the licensing of *pro* in *NS languages*, i.e. the theory of the rich morphological structure of verbal inflection, has been contemplated for OHG as well. Indeed, OHG had a strong inflectional structure: as Axel (2005: 18) states, all OHG verbal paradigms are characterized by six distinguishable forms in the present indicative. The third and first person singular only present syncretic forms in the past indicative and in the present and past subjunctive. In other words, OHG morphological identity is well defined.

However, Axel & Weiß (2011) demonstrate that the rich verbal inflection in OHG cannot justify the occurrence of *pro*. The relation between inflectional agreement and occurrence of *NS* can only be considered valid for the 1<sup>st</sup> person plural. For all other persons the matching relation is instead not evident.

As attested by Axel & Weiß (2011: 26, their example (7)), in earlier OHG the 1<sup>st</sup> person plural had two alternative inflectional forms: the short ending *-m* (or *-n*) and the long ending *-mēs*:

(105) a. *Endi dhes selben christes, . . . , chichundemes auh nu*  
 and of-that same Christ demonstrate<sub>1.PL</sub> also now

*dhes edhili endi odhil*  
of-that lineage and home

‘We now demonstrate the lineage and homeland of that same Christ’  
(*et cuius . . . demonstratur et genus et patria*)

(Isidor, 520 ff.)

b. *Chiuuisso chioffanodom uuir nu hear dhazs . . .*  
surely revealed<sub>1.PL</sub> we now here that  
‘surely we have now revealed here that . . .’  
(*Probauimus . . .*)

(Isidor, 484 f.)

In (105a) the verb *chichundemes* (“we demonstrate”) presents the long ending *-mes*, while in (105b) the verb *chioffanodom* (“we revealed”) presents the short ending *-m*. In presence of the long inflectional ending, the subject pronoun is omitted. By contrast, it is overtly expressed with the short ending, e.g. *uuir* (“we”) in (105b). According to Shields (1996, in Axel & Weiß, 2011: 27), the ending *-mēs* involves the neutral 1<sup>st</sup> person marker *-m* and the plural desinence *-ēs*, which represent the  $\phi$  features of the verb. As a result, the subject pronoun has no reason to be overt. The opposite theory is valid for the short ending *-m*, which does not imply any inflectional property. In other words, the long ending *-mēs* containing the  $\phi$  features is sufficiently strong to license *pro-drop*, unlike the weak short ending *-m*.

Nevertheless, the strong morphology licensing hypothesis is not convincing, as it cannot refer to the other persons and numbers. Furthermore, Paul (1877, in Axel & Weiß, 2011: 27) even advances that *-mēs* is not an inflectional suffix, but rather a clitic subject pronoun. In this case, any other overt subject would be redundant and *pro* would be obligatory. Pronominal agreement of this type also occurs in the 2<sup>nd</sup> person singular of some contemporary German dialects, such as Bavarian, and represents the prerequisite for *pro*. In Modern Bavarian, the 2<sup>nd</sup> person inflectional ending is *-st*. The desinence *-t* is recognized by Axel & Weiß (2011: 28) as a pronominal constituent, which allows the occurrence of *pro*. The process of pronominal assimilation originated in OHG. Although the original 2<sup>nd</sup> person singular ending in OHG was *-s*, the form *-st*

began to appear in cases in which the verb was followed by the pronoun *thu* (“you”). Evidence is provided by Axel & Weiß (2011: 28):

- (106) a. *Gisihisttu* (Tatian)  
 see you<sub>2.SG</sub>  
 ‘You see’
- b. *Kērōstthu* (Christus und die Samariterin)  
 choose/desire you<sub>2.SG</sub>  
 ‘You choose/ You desire’

The fusion between the 2<sup>nd</sup> person singular pronoun *thu* and the verb was at a primordial stage in OHG, as (106) shows. The pronominal agreement has already taken place in the verbal form, yet the overt pronoun is still realized.

Contrastingly, *NS* occurs in OHG in presence of 2<sup>nd</sup> person singular paradigms, in which the pronominal agreement has not substituted the canonical –s ending:

- (107) *Ni ghibiḡ dhinemu heileghin zi chisehanne unuillun*  
 NEG give your holy-one to see corruption  
 ‘You will not give to your holy one to see corruption’  
 (*Nec dabis sanctum tuum uidere corruptionem*)  
 (Isidor 721f.)

As far as the 1<sup>st</sup> and 3<sup>rd</sup> person singular pronouns are concerned, no trace of pronominal agreement can be attested. However, *pro* is allowed with these persons as well, mostly when they are used anaphorically.

In conclusion, it can be affirmed that even the pronominal agreement cannot be a necessary and appropriate condition for *pro-drop* in OHG.

### 3.2.2 The V-to-C licensing hypothesis

Following the line of the different syntactic distribution of OHG and Latin, Axel & Weiß (2011) recognize that the earlier OHG prose texts present an asymmetry between main

and subordinate clauses with respect to the distribution of *pro*. By contrast, Latin has a symmetric syntactic distribution and licenses *NS* both in main and embedded clauses.

The asymmetry between main and secondary clauses in OHG is due to the asymmetric verb placement. Indeed, the finite verb in main clauses can be found in the initial position in OHG, just as in MG, whereas the finite verb in subordinate clauses is situated in the final position. The occurrence of *pro* in OHG depends on verb movement. Conforming to Adam's (1987) theory of the V-to-C movement in Old Romance languages<sup>41</sup>, Axel & Weiß (2011: 23) suppose that the verb movement to C via Infl is the triggering phenomenon for the occurrence of *pro* in OHG as well. In main clauses the verb movement can be realized, since the C position is free: *pro* appears in the C position with the  $\phi$  features of V. By contrast, in secondary clauses, where the C position is occupied by a complementiser, V cannot move, as its  $\phi$  features and, therefore, *pro* are not allowed to appear in that position as substitutes of the overt subject.

Axel & Weiß (2011: 23, their examples (2)(3)(4)) provide evidence of the *NS* presence in OHG main clauses in form of V2 declarative clauses (108), wh-interrogatives (109) and yes/no-interrogatives (110):

(108) a. *Sume hahet in cruci* (Monsee Fragments XVIII, 17; Mt 23:34)  
 some<sub>ACC</sub> hang<sub>2PL</sub> to cross  
 'some of them you will crucify'  
 (*et ex illis crucifigetis*)

b. *In dhemu druhtines nemin archennemes father* (Isidor 279f.)  
 In the Lord's name recognise<sub>1.PL</sub> father  
 'in the name of the Lord we recognize the Father'  
 (*In persona enim domini patrem accipimus*)

(109) *uuanne gisahumes thih* (Tatian 267, 11)  
 when saw<sub>1.PL</sub> you<sub>ACC</sub>  
 'when did we see you?'  
 (*quando te uidimus*)

(110) *quidis zi uns thesa parabola* (Tatian 269, 2)

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<sup>41</sup> see paragraph 2.3.2

say<sub>2.SG</sub> to us this parable  
 'are you telling this parable to us?  
 (*ad nos dicis hanc parabolam*)

In all independent clause types in OHG the subject could be either freely omitted in all persons, as in the previous examples, or freely expressed. According to Axel & Weiß (2011: 23), the overt realization of the subject pronoun in OHG, unlike in other *NS languages*, does not comply with an emphatic interpretation. The overt and the null pronoun are variable and can also co-occur in the same text.

As the result of the V-to-C limitation, it has been proved that null pronouns in subordinate clauses are really uncommon. In the following complex sentences<sup>42</sup> it is evident the asymmetric distribution of the *NS*: the subject pronoun is silent in main clauses and overtly expressed in secondary clauses (the latter are in square brackets):

- (111) a. [*Dhar ir auh quhad* > . . . <,] *dhar meinida leohtsamo zi*  
 where he also said there meant easily to  
*archennenne dhen heilegan geist*  
 recognize the Holy Spirit  
 'where he also said > . . . <, he clearly meant the Holy Spirit'  
 (*Item dicendo* > . . . < *sanctum spiritum eidenter aperuit*)  
 (Isidor 274 ff.)
- b. *Enti [so aer danan fuor] quam in iro dhinchūs . . .*  
 and when he thence went came to their synagogue  
 'when he had departed from there, he went into their synogogue'  
 (*Et cum inde transisset, uenit in synagogam eorum . . .*)  
 (Monsee Fragments IV, 19; Mt 12:9)

Surprisingly, the overt pronoun appears in subordinate clauses in (111 a, b), even though the original Latin version does not present any phonologically expressed pronoun. Hence, it is clear that OHG had a different syntactic development with respect to the *pro-drop* distribution in Latin: while Latin is a *consistent NS language*, OHG is a *partial NS language*.

<sup>42</sup> Example (111) is taken from Axel & Weiß, 2011: 24, their example (5).

### 3.2.3 The Aboutness-shift Topic hypothesis

Contrasting Axel & Weiß's (2011) hypothesis, different generative studies attest the incidence of *pro-drop* in OHG embedded clauses without V-to-C movement. For instance, Schlachter (2010, 2012) finds some evidences of this phenomenon in *Isidor*. Example (112)<sup>43</sup> represents one of these cases:

(112) *so sama so pro hear after quhidhit*  
so same so here after say<sub>3.SG</sub>  
'As he says after this ...'  
(*sic in consequentibus dicit*)  
(Isidor IX.11)

Also Walkden (2012, 2013, 2014) supports the possibility of the *NS* occurrence in OHG embedded clauses and provides evidences such as the following example<sup>44</sup>:

(113) *nibu pro fona zuuem chiboran uerdhe*  
NEGif from two born become<sub>3.SG</sub>  
'if he is not born of two people'  
(*nisi ex duobus nascatur*)  
(Isidor 3.15)

It can be noted that both (112) and (113) are dependent clauses with no trace of the V-to-C movement. Yet, *NS* is allowed. It is not a case that it appears with the 3<sup>rd</sup> person.

As Cognola & Walkden (*Pro-drop in interrogatives and declaratives: a parallel study of Old High German and Old Italian*, to appear) maintain, Axel (2007) had noted that *pro* could also interest embedded clauses and that her V-to-C licensing hypothesis could be compromised in that case. Nevertheless, she interpreted the phenomenon as caused by the Latin translation influence. Both Schlachter (2010, 2012) and Walkden (2012, 2013, 2014) oppose the imitation possibility for embedded clauses and propose a discourse-related *pro-drop* trigger, which involves the same mechanism of Frascarelli & Hinterhölzl's (2007) *Aboutness-shift Topic*<sup>45</sup>.

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<sup>43</sup> Example (112) is taken from Schlachter (2010: 162)

<sup>44</sup> Example (113) is taken from Walkden (2014: 187)

<sup>45</sup> see paragraph 2.2



In (115) the Agree relation between the null DP and the left-peripheral Aboutness Topic operator (ShiftP) is highlighted.

Although the *Aboutness-shift Topic* process is mainly attested in independent clauses in *partial NS languages*, it has occasionally affected embedded clauses in OHG, as examples (112)(113) from *Isidor* demonstrate. As Walkden (2012: 222) states, *NS* in embedded clauses, just as in main clauses, is anaphorically identified as *ShiftP* by means of the Agree relation with the left-peripheral *Aboutness-shift Topic*. The latter must be situated in a “higher” finite clause position with respect to the subordinate clause in question.

## 4. A comparison among *NS languages*

In chapters 2 and 3, I have focused my generative investigation on four languages:

- Modern Italian (MI);
- Old Italian (OI);
- Modern German (MG);
- Old High German (OHG).

Among them, MI, OI and OHG only result to be effectively and substantially affected by the *pro-drop* phenomenon.

### 4.1 Former parallelisms: OI and OHG

#### 4.1.1 The structural-syntactic linking line

Comparing the older stages of Italian and German, respectively Old Italian (XIII century) and earlier Old High German (VIII-IX centuries), syntactic affinities emerge.

The clearest connection among them can be identified in the Latin influence. Indeed, OI, as an Old Romance language, can be considered a Latin direct heir. OHG, despite its Germanic root, is instead accessible in written translations from Latin texts. In other words, it is proved that both OI and OHG were involved by the Latin influence in lexical, phonological and structural processes. Nevertheless, neither in OI nor in OHG

the emergence of *pro* seems to be a factor of loan syntax<sup>47</sup>. Both languages developed independently from Latin with respect to *NS*.

The trigger of *pro-drop* in OHG and in OI is rooted in different processes. According to Axel & Weiß (2011), it involves the two languages in the same way. Firstly, it is proper to specify that OI and OHG allow the *NS* phenomenon in the narrower sense. Indeed, the occurrence of *pro* is not only recognized in SpecCP, but also in the middle clause position. Moreover, it can be stressed that both OI and OHG present a rich verbal morphology, which could represent a valid condition for the pronoun omission, in line with Rizzi's (1982, 1986) inflectional theory. Yet, this licensing condition is estimated to be necessary, but not sufficient.

Axel & Weiß (2011) note an asymmetry between main and subordinate clauses in OHG with respect to the subject omission. Adams (1987) had highlighted the same type of asymmetry in Old Romance languages, such as OI. As the examples (116)(117)<sup>48</sup> in OI and the examples (118)(119)(120)(121)<sup>49</sup> in OHG prove, *NS* is present in main but not in embedded clauses:

- (116) [*Quand tu veniss al mondo*], [*se tu voliss*]  
 When you came to the world, if you wanted  
*pensar, negota ge portassi \_\_, negota n*  
 to think about it, nothing there brought.2SG nothing from there  
*poi \_\_ portar*  
 can.2SG take  
 'When you came into the world, if you think about it, you didn't bring anything, and nothing you can take away.'  
 (Old Milanese, Benincà 2006: 68; *Bonvesin*, 179)

- (117) *E così ne provò \_\_ de' più cari [ch'elli avea]*.  
 And so of-it tested.3SG of-the most dear that-he had  
 'So he tested some of the best friends he had.'  
 (Old Florentine, Benincà 2006: 68; *Testi fiorentini*, 74)

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<sup>47</sup> see paragraphs 2.3.2 (for OI) and 3.3.2 (for OHG).

<sup>48</sup> Examples (116)(117) are taken from paragraph 2.3.1 (there they appear as examples (59)(60)).

<sup>49</sup> Examples (118)(119) are taken from paragraph 3.3 (there they appear as examples (103)(104)), while examples (120)(121) are taken from paragraph 3.3.2 (there they appear as the example (111)).

- (118) *In dhemu druhtines nemin archennemes father*  
 In the Lord's name recognise<sub>1.PL</sub> father  
 'in the name of the Lord we recognize the Father'  
 (Isidor 279f.)
- (119) *nu uuizumes [thaz **thu** allu uueist]*  
 now know<sub>1.PL</sub> that you all know  
 'now we know that you know all things'  
 (Tatian 289, 25)
- (120) *[Dhar **ir** auh quhad > . . . <,] dhar meinida lechtsamo zi*  
 where he also said there meant easily to  
  
*archennenne dhen heilegan geist*  
 recognize the Holy Spirit  
 'where he also said > . . . <, he clearly meant the Holy Spirit'  
 (Isidor 274 ff.)
- (121) *Enti [so **aer** danan fuor] quam in iro dhinchūs . . .*  
 and when he thence went came to their synagogue  
 'when he had departed from there, he went into their synogogue'  
 (Monsee Fragments IV, 19; Mt 12:9)

In all above sentences from OI and OHG, the null subject pronoun (in bold) is always overtly expressed in embedded clauses (in square brackets). By contrast, the *NS* is silent in all main clauses. In view of these considerations, it can be maintained that OI and OHG are *partial NS languages*, according to Rizzi's (1982, 1986) classification: they have an asymmetric *NS* distribution, since *pro* is restricted to main clauses.

Axel & Weiß (2011) adopt Adams' (1987) V-to-C licensing hypothesis for Old Romance languages and extend it to OHG as well, in order to justify the occurrence of *NS* in main clauses. The strong verbal inflection in both languages allows the  $\phi$  features of V to be merged and moved to the C position. When this position is free, i.e. in main clauses, it can be occupied by *pro*, which assumes the  $\phi$  features and replaces the overt pronoun

in subject position. By contrast, when the C position is not free, i.e. in embedded clauses, as it is occupied by a complementizer, *pro* is not allowed to appear.

Lastly, considering a pragmatic parallelism between OI and OHG, the overt pronoun in embedded clauses is not focalized and does not have an emphatic function in both ancient languages, in opposition to modern *NS languages*. As a consequence, it can be assumed that overt subjects in OI and OHG have the same pragmatic value of null subjects.

## **4.2 Analogies beyond time: MI and OHG**

### **4.2.1 The discourse-pragmatic connection**

As emerged from chapter 3, paragraph 3.3.3, the V-to-C hypothesis in application to OHG is challenged by Schlachter (2010, 2012) and Walkden (2012, 2013, 2014). They prove that *NS* was licensed in OHG not only in main clauses, but also in secondary ones, where the V-to-C movement was inhibited by the complementizer. In order to justify the emergence of *pro* in embedded clauses, Schlachter (2010, 2012) & Walkden (2012, 2013, 2014) diverge from syntactic implications, which resulted groundless with respect to this clause typology. They rather identify the root of the *NS* phenomenon in a discourse-related trigger. The latter is the Agree relation of the silent subject pronoun with a pragmatic antecedent, which is present in its C-domain. According to Schlachter (2010, 2012) & Walkden (2012, 2013, 2014), the OHG antecedent is of the same type of Frascarelli & Hinterhölzl's (2007) *Aboutness-shift Topic*. Indeed, it licenses the occurrence of *pro* through the Agree relation, which transfers its properties, i.e. the 'Aboutness' property and the  $\phi$  features, toward the silent DP. However, both in

Modern Italian and in Old High German the matching relation is only allowed with the 3<sup>rd</sup> person subject. The following examples<sup>50</sup> show the incidence of the *Aboutness-shift Topic* in the two languages:

- (122) A) *Ma a te adesso **pro** ti paga?*  
 B) *Ancora no comunque l'ultima volta **pro** m'aveva detto appunto che **pro** aveva intenzione di cominciare a farmi pagare se **pro** era soddisfatto di quella trasmissione là [...]*

- A) Does **pro** pay you now?  
 B) Not yet, anyway, last time **pro** told me that **pro** had intention to start to give me some money if **pro** was satisfied with that radio program [...]

- (123) ***pro** steih tho in skifilin*  
 stepped<sub>3.SG</sub> then into boat  
 'He then stepped into the boat'  
 (Tatian 193.1)

- (124) *so sama so **pro** hear after quidhit*  
 so same so here after say<sub>3.SG</sub>  
 'As he says after this ...'  
 (Isidor IX.11)

- (125) *nibu **pro** fona zuuem chiboran uerdhe*  
 NEGif from two born become<sub>3.SG</sub>  
 'if he is not born of two people'  
 (Isidor 3.15)

The Italian dialogue (122) and the OHG clauses (123)(124)(125) seem not to be semantically fulfilled: they result as extracted from a wider context. *Pro* occurs indeed in form of an anaphor, which refers to a previous element in the discourse, i.e. the so-

<sup>50</sup> Example (122) is part of the example (54) in paragraph 2.2. Example (123)(124)(125) are taken from paragraph 3.3.3 (there they appear as examples (112)(113)(114)).

called *Aboutness-shift Topic*. In absence of a context and of a left-peripheral antecedent, *pro* would be not allowed to appear.

As the result of the comparison, the status of OHG appears to be more similar to Modern Italian than to Old Italian. The *Aboutness-shift Topic* in OHG licences the *NS* occurrence both in main and embedded clauses, just as in MI. Therefore, the identification of OHG as a *partial NS language* is questioned, as the asymmetry among clause types does not subsist anymore. In view of these considerations, although the manifestation of *pro* is less common in subordinate clauses with respect to main ones, it is proper to associate OHG to *consistent NS languages*.

#### 4.2.2 The lacking expletive

A further parallelism between OHG and MI can be recognized in the use of the *non-referential subject*. *Non-referential subject pronouns* are semantically empty elements, which are represented as overt expletives in many *non-NS languages*<sup>51</sup>. By contrast, they are silent in *NS languages*. Nevertheless, *non-referential subject pronouns* only appear in specific constructions, which are exposed in the following examples<sup>52</sup>:

NO THEMATIC SUBJECT CLAUSES (with weather verbs and verbs of individual body experience)

(126)

- a. *noch pro regenot nicht mé*  
noch **es** regnete nicht mehr  
(und es regnete nicht mehr)

---

<sup>51</sup> see paragraph 1.3

<sup>52</sup> Examples (126)-(139) are a re-elaboration of examples (100)-(102) in paragraph 3.3.

- b. *e pro è piovuto non più*  
(e non è piovuto più)

‘and it did not rain anymore’

(127)

- a. *duo pro morga uarth*  
als **es** Morgen wurde
- b. *quando pro mattina divenne*  
(quando divenne mattina / quando si fece giorno)

‘when it dawned’

(128)

- a. *so heiz wirt pro ze sumere*  
so heiß wird **es** Sommers
- b. *così caldo diventa pro d’estate*  
(diventa così caldo d’estate)

‘it turns so hot in summer’

(129)

- a. *dar dunchet pro tir rehto*  
da dünkt **es** dich richtig ...
- b. *là sembra pro a te giusto ...*  
(là ti sembra giusto...)

‘There it seems to you correct...’

(130)

- a. *thaz himo pro hungreda ande thursta, daz ...*  
daß ihn **es** hungerte und dürstete, daß...  
(daß er hungerte und dürstete, daß...)
- b. *che lo pro faceva morire di fame e sete, che...*  
(che lo faceva morire di fame e sete, che...)

‘that he hungered and thirsted, that...’

(131)

a. ... *so pro nan lústa*  
...sofern **es** einen gelüftet

b. ... *se pro uno desidera*  
(se uno desidera)

'If someone desire'

#### EXTRAPOSED SUBJECT CLAUSES

(132)

a. ... *ioh dhar ist pro offenliihost chisaget, huueo ...*  
... immerdar wird **es** ganz deutlich gesagt, wie ...

b. ... *sempre è pro molto chiaramente detto, come...*  
(si dice sempre molto chiaramente, come...)

'It is always very explicitly said how...'

(133)

a. *uar ist pro, dhaz ...*  
wahr ist (**es**), daß

b. *vero è pro che*  
(vero è che...)

'It is true that'

(134)

a. *bi thiu ist pro nu báz ... , thaz ...*  
um dessen willen ist **es** nun besser ..., daß  
(dafür ist es nun besser, daß)

b. *dunque è pro ora meglio che*  
(dunque ora è meglio che)

'therefore it is now better that...'

PURELY RHEMATIC, PRESENTATIVE CLAUSES – IMPERSONAL PASSIVES AND  
ERGATIVE CONSTRUCTIONS

(135)

a. ... *wanta pro iu nu not wirdit*  
... weil **es** euch jetzt nötig wird

b. ... *perché pro a voi ora necessario sarà*  
(perché ora sarà necessario per voi)

‘because it will be now necessary for you’

(136)

a. *not ist pro manne*  
Mühe ist **es** dem Menschen

b. *Pena è pro agli uomini*  
(è fastidioso per gli uomini)

‘It is troublesome for man’

(137)

a. *thó pro tag uuás giuuortan, ...*  
da **es** Tag war geworden  
(da es Tag geworden war)

b. *quando pro giorno era diventato*  
(quando era diventato giorno / quando si era fatto giorno)

‘when it had become daylight’

(138)

a. *huuanta in ist pro gageban ze archennenne*  
denn ihnen ist **es** gegeben zu erkennen  
(denn ist es ihnen gegeben zu erkennen)

b. *poiché a loro è pro dato di riconoscere*  
(poiché è dato loro di riconoscere)

‘since they are allowed to recognize’

(139)

a. *thémo ist pro giwisso irdéilit*

dem ist **(es)** sicher entschieden  
(von ihm ist es sicher entschieden)

*b. a lui è pro sicuramente deciso*  
(per lui è sicuramente deciso)

'for him it is no doubt decided'

The examples prove that the *non-referential subject pronoun* is overtly expressed in form of the expletive "es" in MG, while it is silent, i.e. in form of *NS*, in the OHG (clauses *a*) and in the MI (clauses *b*) versions.

## Conclusions

The study I have pursued in my dissertation is focused specifically on *referential pro*. The expletive function of *pro* I have proved not to be sufficient to classify a language as a *NS language*. Indeed, the attested implication of Modern Standard German with the *expletive pro* does not designate it as a *full pro-drop language*. By contrast, the incidence of *referential pro* under several syntactic, morphological and pragmatic conditions determines the identification of a *NS language* and its classification as a *consistent, radical or partial NS language*. Furthermore, the differentiation of *genuine pro* from other forms of subject omission, such as the *context-linked subject drop* or the *OBD*, distinguishes and highlights *NS languages* that allow *pro-drop* in the narrower sense. These languages license the occurrence of a silent referential pronoun in different positions in finite clauses, i.e. not only in SpecCP, but also in the middle field. Among this typology of *NS languages*, Modern Italian, Old Italian and Old High German emerge from my analysis. They are languages with distinctive morphological agreement specifications on verbs. Nevertheless, this condition is not adequate in order to justify the occurrence of *pro*. As I proved, according to the structural perspective, the morphological richness determines in most cases the emergence of *pro* in *NS languages*, but it cannot be considered a universal trigger. Moreover, even when it plays a major role, it cannot be always recognized as the main cause of *pro-drop*. Considering Axel & Weiß's (2011) assumptions, for instance, the rich inflectional structure of the verb in OI and OHG allows its  $\phi$  features to be merged and moved to C. However, it is the verb position rather than the verbal morphology that is the crucial factor for the V-to C movement and, therefore, for the appearance of the *NS*. Differently, according to the discourse-pragmatic view, the morphological structure has no implications with *pro*. As Frascarelli & Hinterhölzl (2007) assume for MI and Schlachter (2010, 2012) & Walkden (2012, 2013, 2014) maintain for OHG, the topic antecedent and its properties only affect the presence of the silent subject pronoun. Considering the two different perspectives, different analogies among the three languages emerge. On the basis of the syntactic view, I have highlighted parallelisms

with respect to the *asymmetric NS distribution* in OI and OHG and I have shown that they both can be considered *partial NS languages*. Nevertheless, in the light of the discourse-related view, I have proved that OHG, like MI, is not an *asymmetric NS language*, since *pro* can likewise occur in main and embedded clauses in function of *referential* and *expletive pro*. Therefore, in view of the last considerations, I have attested analogies between OHG and MI, which can be both identified as *consistent NS languages*.

In conclusion, the purpose of my study is not to support one perspective to the detriment of the other one, but rather to enhance both theories. In other words, I recognize as valid the two perspectives and do not consider them in contrast. They are valid in different contexts, under different conditions. Therefore, I would rather affirm that they compensate each other and add a remarkable contribution to the generative overview of *pro-drop*. Indeed, although Axel & Weiß's (2011) hypothesis is valid in OHG for all persons, it is only relevant in main clauses, in form of *V2 declarative*, *Wh-* and *Yes/No interrogatives*. Schlachter (2010, 2012) and Walkden (2012, 2013, 2014) provide instead a significant justification for the incidence of *NS* in embedded clauses. Their hypothesis concerns indeed main and secondary clauses, but it is only valid with the 3<sup>rd</sup> person subject, when it is used anaphorically. For all other persons, the V-to-C movement remains the most significant licensing theory for OHG main clauses, whereas it is not applicable to the embedded ones.

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