Impersonal *si* constructions

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# Impersonal *si* constructions

## Agreement and Interpretation

*by*

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Mouton de Gruyter
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*to my parents Gino and Nicoletta*

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All errors are, of course, entirely mine.

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# Introduction

## 1. Introduction

This monograph investigates the structural representation and interpretation of impersonal *si* constructions in Italian. It is a revised and enlarged version of a four year research project that culminated in the doctoral dissertation entitled *Impersonal si constructions. Agreement and Interpretation.*

Impersonal *si* constructions (ISCs henceforth) are sentences in which the subject is not clearly specified. They are used for instance when the speaker wants to remain vague as to the participants in an action, or does not wish to specify the subject of the action. An ISC is exemplified in (1):

(1) *Si dice* *che* *pioverà*
si says that will-rain
'It is said/ they say/ somebody says that it will rain'

In (1), the speaker remains vague as to the identity of the person who says that it will rain. As will be shown in this work, however, the tense-aspectual specification of the sentence as well as the use of some modal and temporal adverbs restricts the range of possible referents for the subject.

In this work, the syntax and interpretation of Italian ISCs will be considered and some observations will be brought to light regarding the interaction of pragmatic, semantic and syntactic factors in determining this interpretation. The syntax of impersonal *si* has been the object of much research in recent years. This work offers a survey of the relevant proposals that have been made to analyze ISCs. Moreover, it takes into consideration several previously overlooked phenomena, many of which have often been considered incidental. Taking these apparently 'secondary' phenomena as a starting point, the present work develops a novel analysis of impersonal *si* constructions.

This analysis accounts for some previously unexplained alternations, such as the transitive agreement alternation, and offers a contribution to the development of current syntactic theory by showing the necessity of considering additional syntactic sub-features that encode semantic/deictic

information. A feature hierarchy emerges from the analysis of ISCs which reveals very interesting.

As stated above, the starting assumption of this work is that syntax, semantics, and pragmatics must strictly interact with one other. Therefore, a thorough analysis of the syntax of ISCs needs to take semantics and pragmatics into account. For example, verbal semantics, or *Aktionsart*, have barely been considered in the literature on ISCs. The present work is framed in such a way as to capture the contribution of verbal semantics to the agreement patterns of ISCs. More specifically, assuming that verbal semantics is reflected in the syntax of a VP, it is shown that this semantics determines the syntactic agreement patterns of ISCs.

A large part of this work is also devoted to the interpretation of ISCs: ISCs may be interpreted as generic, existential, or inclusive. The reference set that *si* selects may be purely generic (generic reading), or there may be a group of people satisfying the property expressed by the predicate (existential reading), as in (1) for example. This existential group may be further specified for inclusiveness (inclusive reading), i.e. it may include the speaker, or it may not. This work is aimed at identifying the causes underlying the generic/inclusive alternation. Moreover, the accurate analysis of agreement patterns and interpretation of ISCs also helps to identify some common features that correlate ISCs to apparently unrelated constructions, like quirky dative constructions in Icelandic.

To summarize, this book offers a rich survey of the existing literature on ISCs. It also presents new data and previously overlooked phenomena related to ISCs, and offers a novel analysis of their syntax. Those phenomena that are traditionally assigned exclusively to the syntactic component are shown also to involve the semantic and pragmatic components of the grammar.

## 1.1. Structure of the present work

The present work is organized into 5 chapters addressing different aspects of ISCs in Italian, and a conclusion. As stated in the introduction, this study is concerned with agreement and interpretation of Italian ISCs, in particular with those aspects that have often been considered as incidental and peripheral to the understanding of the problem as a whole. We need to start from these ‘secondary’ phenomena and show how they help delineate the general picture of ISCs.

This first chapter is organised as follows: after the overview of the whole monograph, we consider some general problems that have recently been of interest to the syntactic community and that will be taken into account for the theory of ISCs presented here. We first present the old problem of the existence of one or more *si*s, which has been a matter of debate since Napoli's (1976) dissertation, and is still alive today (see Reinhart & Siloni 1999, Embick 2000, and Folli 2001 among others). We then turn to consider the clitic nature of *si* in section 2.1. In section 3, we outline the theoretical assumptions that constitute the basis for our analysis and that are more or less recognized as standard (with some slight variations). Section 4 focuses on impersonal *si* and its syntactic features.

Chapter 2 addresses the issue of agreement in transitive ISCs. The alternation between the construction with verb-object agreement and the one without has often been considered an idiosyncratic phenomenon, mainly subject to optionality. In chapter 2, the agreement patterns of transitive ISCs are reconsidered, and it is shown that they are the result of the application of specific semantic constraints. In particular, transitive ISCs with and without verb-object agreement will be shown to differ with respect to their event structure.

Agreement is also the topic of chapter 3, where a solution for the problem of the person restriction on the object of transitive ISCs with verb-object agreement is proposed. Transitive ISCs with verb-object agreement are subject to a constraint which makes them similar to Icelandic quirky dative constructions: their object must be 3rd person. After examining the features that Italian ISCs and Icelandic quirky dative constructions have in common, we shall show that ISCs are not however quirky dative constructions. The fact that a person restriction on the object holds in both constructions despite their syntactic difference provides us with a better understanding of the person restriction phenomenon as a whole. In particular, it will be argued that the person restriction on the object is not accidental, but is the systematic result of a specific syntactic configuration, namely Multiple Agree.

Chapter 4 deals with the problem of interpretation of ISCs. It is well known that ISCs do not have a unitary interpretation, but that their interpretation rather ranges from universal with no specification for inclusiveness to existential, which may be specified for inclusiveness, i.e. as including the speaker. As already observed by Cinque (1988), the tense-aspectual specification of the clause influences the interpretation of ISCs. Taking Cinque's observation as a starting point, we shall try to detect all the

possible causes of interpretational variation. It will be shown that boundedness is indeed responsible for the inclusive interpretation of ISCs. When the event is unbounded, a generic interpretation for the semantic person feature arises via binding by a generic operator. When the event is bounded, the event is linked to the speech act, which provides *si* with an inclusive interpretation.

Chapter 5 is more speculative in nature, and addresses the so-called unaccusative-unergative puzzle. It is well known that ISCs with unergative verbs present different agreement patterns compared to ISCs with unaccusative verbs. In this chapter, it will be shown that these agreement patterns are the result of different agreement operations, which involve syntactic as well as semantic features. Past participle agreement in transitive ISCs will also be considered, as well as agreement in predicative ISCs.

Chapter 6 contains the conclusions.

### *1.1.1. Agreement patterns and interpretation of ISCs*

ISCs present a number of puzzling agreement facts, which have often been overlooked in the literature. The literature on *si* has mainly focused on the problem of absorption of the external $\theta$-role and of the withdrawal of Accusative Case (see Rizzi 1976, Belletti 1982, Burzio 1986, Cinque 1988, and Dobrovie Sorin 1996, 1998, 1999 among others). In other words, the main concern of those linguists working on ISCs in Italian has so far been the argument structure of such constructions. To our knowledge, agreement patterns have been almost entirely ignored, with the exception of Belletti (1982) and Cinque's (1988) work, or have been only partially considered, as in Burzio (1986), Raposo & Uriagereka (1990), and Dobrovie-Sorin (1996, 1998, 1999). Most of the problems concerning agreement patterns of ISCs have therefore been left as ‘an open question’.

Impersonal *si* triggers quite peculiar agreement patterns, both in the present tense with transitive verbs and in the perfect tense (*passato prossimo*).[1] In the present tense, *si* constructions with transitive verbs show two main agreement patterns, exemplified in (2) and (3):

(2) *In Italia si mangiano gli spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-masc pl
‘In Italy they eat spaghetti’

(3) *In Italia* *si mangia* *(gli)* *spaghetti*
in Italy si eats-3rd sg the-masc pl spaghetti-masc pl
'In Italy they eat spaghetti'

(2) and (3) have the same meaning, are made up of the same lexical items but display two different agreement patterns. In (2), the verb agrees with *gli spaghetti*, while in (3) there is no such agreement, and the verb shows a 3rd person singular inflection. We refer to (2) as a sentence with verb-object agreement, and to (3) as a sentence without verb-object agreement.

A second peculiarity of ISCs with respect to agreement is displayed in the past tense of unaccusative and unergative verbs, as illustrated in (4) and (5):

(4) *Si è* *arrivati*
si is-3rd sg arrived-pp pl
'Somebody/we have arrived'

(5) *Si è* *telefonato*
si is-3rd sg called-pp sg
'Somebody/we called'

In (4), where the verb is unaccusative, the past participle shows a plural ending, while in (5), where the verb is unergative, it is singular.

In chapter 2, the following question is addressed: what causes the difference in agreement patterns between sentences (2) and (3)? It is argued that the difference in agreement patterns is caused by the position in which *si* is merged, and by the interaction of the features of *si* with various functional heads. The agreement patterns of (4) and (5) are in turn considered in chapter 5.

In addition to the peculiar agreement patterns just outlined, ISCs also present an interesting restriction on the object, illustrated in (6)-(8):

(6) *Si vedono* *molte* *auto*
si see-sc 3rd pl many-fem pl cars-fem pl
'One sees many cars'

(7) *Si vede* *Maria/ lui*
si sees-3rd sg Maria / he-3rd sg
'One sees Maria/him'

(8) a. **Si vedo* *io*
si see-1st sg I- 1st sg

b. **Si vedi* *tu*
si see-2nd sg you-2nd sg

c. **Si vediamo* *noi*
si see-1st pl we-1st pl

d. **Si vedete* *voi*
si see-2nd pl you-2nd pl

(6)-(8) show that the object in ISCs with verb-object agreement cannot be other than 3rd person. The locus of discussion of this problem is chapter 3. There, it is proposed that the person feature on *si* 'saturates' the person feature on the verb, thus blocking any other person checking possibility. Hence, T may only Agree with a DP, which, it is proposed, has number and is 3rd person. Section 4 of the present chapter contains a more precise characterization of the feature set of *si*.

In his seminal work on *si*, Cinque (1988) observed how the interpretation of ISCs varies according to the time specification of the sentence. In fact, in examples (4) and (5), the introduction of the past tense brings in an inclusive reading. In other words, in (4) and (5), there is an additional indication that the speaker is included in the event. In chapter 4, the interpretative variation of ISCs is examined, and an explanation is provided for the phenomenon of inclusiveness, which capitalizes once again on the person feature on *si*. This person feature is specified by imperfective aspect or by the speech act, according to a mechanism which will be presented in detail in chapter 4. Chapter 4 and chapter 2 are therefore closely connected: In chapter 2, it is proposed that *si* in some cases may be merged in an inner aspectual projection, inside the VP. This projection encodes telicity. As shown in chapter 4, the interpretation of *si* strictly depends on the temporal boundedness and telicity of the event. Therefore, *si* can be considered an aspectual element, the interpretation of

which varies depending on the aspectual specification of the clause and on the *Aktionsart* of the verb.

The conclusions and a summary of the main achievements of this monograph are contained in chapter 6.

## *2.* Types of *si*

As stated above, impersonal *si* is considered from several viewpoints in this study: first, the study addresses the agreement patterns of the constructions in which *si* occurs, together with the restrictions imposed on other lexical items appearing in ISCs. Then, it considers the interpretational variation of ISCs.

So far, we have used the term impersonal *si* in a completely 'impressionistic' way, without distinguishing it from other kinds of *si*. In fact, *si* appears in several other contexts besides the impersonal one, with different functions from the one considered so far. *Si* may:

- Mark reflexivity as in (9), or reciprocity, as in (10).
- Mark a middle reading, as in (11).
- Mark a so-called medio-passive reading, as in (12).
- Mark unaccusativity, as in (13).
- Convey a so-called inherent reflexive meaning, as in (14).
- Mark an 'applicative', or aspectual reading, as in (15).
- Mark inchoativity, as in (16).

(9) *Luigi si lava*
Luigi si washes
'Luigi washes himself'

(10) *Maria e* *Luigi si sono* *salutati*
Maria and Luigi si are greeted
'Maria and Luigi greeted each other'

(11) *Queste camicie si lavano facilmente*
These shirts si wash easily
'These shirts wash easily'

(12) *Si vendono delle auto*
si sell of-the cars
'Some cars are being sold'

(13) *La porta si è aperta*
the door si is open
'The door opened'

(14) *Luigi si è seduto*
Luigi si is sat
'Luigi sat (himself) down'

(15) *Maria si è mangiata il panino*
Maria si is eaten the sandwich
'Maria has eaten the sandwich'

(16) *Maria si sveglia alle 7 ogni mattina*
Maria si wakes up at-the 7 every morning
'Maria wakes up at 7 every morning'

In the history of Italian linguistics, considerable attention has been dedicated to the question whether there exists a unique *si*, which performs all the functions listed above depending on the environment in which it occurs, or whether there are instead two or more different *si*s, which differ substantially, with little or nothing to do with each other.

The first attempt to provide an answer to the 'one *si*/many *si*s' question dates back to Napoli (1976). Napoli (1976) proposes that there are two transformational sources for *si*: the REFLEXIVE (REF) and the SI-INSERTION (*Si*-I) transformations respectively. REF is the transformation which operates on reflexives, reciprocals, inchoatives and middles, while *Si*-I applies to what we have just called impersonal and medio-passive structures. Napoli claims that there are two semantically and syntactically distinct *si*s, although they are etymologically related.

According to Manzini (1986), on the other hand, impersonal, reflexive-reciprocal and middle *si* are one and the same lexical item. *Si* is a variable, which can be free or dependent. Provided that the passivizing property of *si* is optional, one can obtain four different combinations by matching the free/dependent with the passivizer/non-passivizer properties, as shown in (17):

(17)

| | **Free variable** | **Dependent variable** |
|---|---|---|
| **Non-passivizer** | Impersonal *si* | Reflexive *si* |
| **Passivizer** | Middle *si* | Middle-reflexive *si* |

[from Manzini(1986:259)]

When *si* behaves as a free variable and the optional passivizer property is not realized, we obtain an impersonal *si* construction; when *si* behaves as a dependent variable that realizes its passivizer property, we obtain a middle-reflexive *si* construction, and so on. However, Manzini observes that the occurrences of *si* that do not appear in (17), like the unaccusative one, need to be distinguished from the types of *si*s already discussed. On her theory, unaccusative *si* operates in the lexicon, while the 'unique' *si* exemplified in (17) operates in the syntax. Manzini's analysis, although very tempting, poses some questions: what does it mean to say that an item may or may not be a passivizer? What creates this optionality? Is this not just another way of saying that we are dealing with two different lexical items?

Another influential contribution on ISCs is offered by Burzio (1986). Burzio draws the line between reflexive, unaccusative and inherent reflexive *si* on the one hand, and what he calls impersonal and passivizing SI on the other. According to Burzio, *si* marks the lack of assignment of a $\theta$-role to the subject position. While *si* is an unaccusativity marker, SI is an 'impersonality' marker.

With the addition of several unavoidable subcategorizations, we follow Burzio's approach, isolating the class of 'impersonal' *si*, which includes both the proper impersonal, and the so-called passive-*si*, from the other instances of *si*.

Burzio's approach constitutes the basis for Cinque's (1988) seminal analysis of ISCs. Cinque refines the analysis of ISCs, deriving their agreement patterns from one basic property of *si*: its argumental vs. non-

argumental state. We will return in more detail to Cinque's analysis, which constitutes the starting point for our own.

Although the issue just outlined is of great interest, the 'one *si*/many *si*s' problem will not be addressed in this work, which will focus exclusively on impersonal *si*. However, in order to identify a category named 'impersonal' *si*, we are confronted with the 'one *si*/many *si*'s' problem, at least to some extent. The question we wish to address is: can we really identify an impersonal *si*, or is it better just to refer to the 'impersonal USE' of *si*, presupposing the existence of only one *si*? The assumption we make regarding this point is that there exists an 'impersonal *si*' which includes both the medio-passive *si* and the proper impersonal *si*. Such an assumption is mainly determined by morphological, distributional, and semantic factors.

There are in fact several characteristics which connect impersonal and passive *si*. A first characteristic shared by proper impersonal *si* and passive *si* is the lack of morphological inflection. All the other types of *si* exhibit an inflectional paradigm, which is of course restricted to some person/number combinations, but does still exist. The morphological paradigm of reflexive, reciprocal,(middle), inherent, unaccusative and applicative *si* is shown in (18):

(18)

| | |
|---|---|
| **mi** | 1st ps sg |
| **ti** | 2nd ps sg |
| **si** | 3rd ps sg |
| **ci** | 1st ps pl |
| **vi** | 2nd ps pl |
| **si** | 3rd ps pl |

Thus, impersonal and passive *si* are morphologically distinct from all the other instances of *si* in that the latter, but not the former, show morphological inflection. It is worth noticing that the 3rd person singular and plural forms for inflection are both spelled out as *si*. We wish to argue that the presence vs. absence of inflectional morphology correlates with the

feature specification of the two different *si*s which plays a crucial role in determining agreement of *si* constructions.

Syntactically, impersonal *si* occupies a different position with respect to other *si*s. The following example shows the position of reflexive/aspectual and impersonal *si* with respect to an object clitic:

| | | | | | |
|---|---|---|---|---|---|
| (19) | *Ce* | *lo* | *si* | *è* | *mangiato* |
| | si-refl | it-acc | si-imp | is | eaten |
| | 'We have eaten it ourselves' | | | | |

In (19), both reflexive and impersonal *si* are present. As stated above, reflexive *si* shows morphological inflection, while impersonal *si* does not. This helps us detect which of the two occurrences in (19) is the reflexive one (*ce*)[2] and which is the impersonal (*si*, no inflection). (19) also shows that impersonal *si* occupies a lower position with respect to reflexive *si*.

Semantically, both impersonal and passive *si* introduce an unspecified subject. In a sentence like (20), there is an understood unspecified subject, and in fact the English translation for it is 'They eat'. This reading is not available with the other *si*s:

| | | | | | |
|---|---|---|---|---|---|
| (20) | *In Germania* | *si* | *mangiano* | *le* | *patate* |
| | in Germany | si | eat-3rd pl | the | potatoes |
| | 'In Germany they eat potatoes' | | | | |

Along the lines of Burzio's argument, we therefore isolate an impersonal *si*, which is distinct from the other *si*s, and which is characterized by the fact that it introduces an unspecified subject in the clause.

Impersonal *si* is not, however, completely unrelated to the other *si*s. In passive constructions, for instance, it is not implausible that *si* marks the absence of the external $\theta$-role. This draws a bridge between unaccusative and passive *si*. An approach of this kind has recently been re-proposed by Embick (2000) (see also Folli 2001 for a different view on *si*). We leave this topic aside for further research, and concentrate on what makes impersonal *si* peculiar with respect to other lexical items. Before doing that, we briefly consider the clitic status of *si*, which is of crucial importance for the explanation of the agreement patterns of ISCs.

## 2.1. The clitic nature of impersonal *si*

*Si* is universally recognized as a clitic, both for phonological and morpho-syntactic reasons. Like all other clitics, *si* does not constitute a phonological word on its own (Kenstowicz 1994, Nespor 1993), and cannot bear stress, as example (21), where the boldface syllable bears the stress, shows:

(21) ****Si*** *mangia/ si* ***man****gia*

Moreover, the position of *si* in a clause is strictly defined. Impersonal *si*:

(a) appears between other clitics and the verb, (22),

(b) follows negation (23), while full DPs precede it,(24),

(c) cannot be dislocated or focused (25), while full DPs can, (26),

(d) cannot appear in isolation, (27) (see Burzio 1986, Scalise 1994, Cardinaletti Starke 1999):

(22) *Le* *si racconta* *storie*
her-dat fem 3rd sg si tell-3rd sg stories-fem pl
'People tell her stories'

(23) *Non si mangia* *alle* *7 del* *mattino*
neg si eats-3rd sg at-the 7 of-the morning
'One does not eat at 7 in the morning'

(24) *Maria non* *mangia* *alle* *7 del* *mattino*
Maria neg eats-3rd sg at-the 7 of-the morning
'Maria does not eat at 7 in the morning'

(25) **L'ha* *visto* *si*
it-acc masc sg-has-3rd sg seen-pp masc sg si
'It was somebody who saw it'

(26) *L'ha* *visto* *Maria*
it-acc masc sg-has-3rd sg seen-pp masc sg Maria
'Maria has seen that'

(27) *Chi l'ha* *detto?* **Si/ Maria*
who it-acc masc sg-has-3rd sg said-pp masc sg si/ Maria
'Who said that? Somebody/ Maria'

There have been two mainstream approaches to cliticization: one, initiated by Kayne (1975), that considers clitics as moving elements, which are base-generated (or merged) in a low position and then move and cliticize at a later stage; another, mainly adopted by Jaeggli (1982, 1986) and Borer (1984), that considers clitics as base-generated in the slot they actually occupy, which for both the movement and the base-generation approach is left-adjacent to the verb in finite clauses. Left adjacency to the verb, however, does not give us much information about the actual position of clitics. In fact, Kayne (1975), together with Borer (1984) and Jaeggli (1982) considered the landing site of clitics to be the VP projection, most naturally the V head. Other linguists (Poletto 2000, and Manzini & Savoia 2001, 2004, 2005 among others) have argued for the existence of dedicated positions for clitics, which would mean that they were linearly left-adjacent to the verb, but that they actually occupying dedicated heads in the left periphery of the sentence. In particular, Manzini & Savoia (2001), who follow the base-generated approach, have identified a whole clitic string, which is organized as follows:

(28) [D [D [Q [P [Loc [N

Where:

- D stands for Definiteness, and D is lexicalized by uninflected clitics.
- Q stands for Quantifiers, lexicalized by 3rd person plural clitics.
- P stands for Person, lexicalized by 1st/2nd person clitics.
- Loc stands for locative, lexicalized by clitics like *ci*.
- N stands for Noun, lexicalized by 3rd person singular clitics.

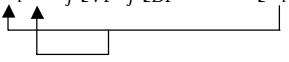
Observe that the D domain is reserved for subject clitics, whereas the lower domain is reserved for object clitics. According to Manzini & Savoia (2001), *si* is located in Q, in virtue of its denotational properties, which are, according to Manzini (1986), those of a free variable. Another classification of clitic positions worth mentioning is that proposed by Poletto (2000). Poletto shows that subject clitics in Northern Italian dialects occupy different positions depending on their person and number features, and identifies a different clitic string. Poletto's clitic hierarchy is mainly for subject clitics, and is of little use here. However, it is worth mentioning in order to gain a wider picture of the work that has been done on clitics in Romance.

On the movement side, a novel way to analyze clitics was proposed again by Kayne (1989a,b). Kayne argued for the existence of an intermediate projection where agreement between object clitics and the past participle takes place. Crucially, the clitic moves through the specifier of such a projection as an XP, and ends up adjoined to the verb, this time in Infl, as an $X^0$. This means that the verb and the clitic move along parallel paths, but do not move together.

Kayne's proposal opened the way for several other proposals, such as those of Uriagereka (1995) and Sportiche (1995, 1999). According to Uriagereka, clitics are D heads; in the case of clitic doubling in Spanish, this amounts to saying that there is an NP in the specifier of the DP projection headed by the clitic. It is worth observing that this DP is base-generated in an argument position. Clitics and their doubled NPs obtain coreference by being in a Spec-head configuration, as exemplified in (28a,b):

(29) a. *Lo vio a Juan*
him saw-3rd sg to Juan
'He saw Juan'

b. $[_{IP}\ lo_i\ vio_j\ [_{VP}\ t_j\ [_{DP}$ a Juan$[\ t_i\ ]]]]$



The clitic structure proposed by Sportiche is similar to Uriagereka's. However, according to Sportiche, only the doubled NP (if there is any) is generated in an argument position, while the clitic is base-generated or merged as an autonomous functional head, called Voice. Like Uriagereka,

Sportiche assumes that the coreferentiality between the clitic and the doubled NP is obtained when the clitic and the NP are in a Spec-head configuration.

(30) $[_{\text{ClVoiceP}}$ a Juan$_i$ lo $[_{\text{IP}}$ vio$_j$ $[_{\text{VP}}$ t$_j$ t$_i$ ]]]

For Uriagereka, thus, the clitic moves along the lines proposed in Kayne's (1989b) theory. For Sportiche, on the other hand, the clitic does not move, but the full NP, be it a lexical NP or a *pro*, always does.

As the present work is mainly concerned with the syntax of impersonal *si* and not with clitics in general, it is worth concentrating on those aspects of the theory that concern *si* in particular. One of the main decisions to be made is whether one should consider clitics as functional heads or as arguments. In fact, there are arguments in favour of each of the two approaches (see Uriagereka 1995 and Sportiche 1995, 1999). A good attempt at unification of the two hypotheses is sketched in Chomsky's (1995) Minimalist Program. In minimalist terms, nothing prevents something from being both a maximal and minimal projection (i.e. a head), as there is no longer any need to postulate a rigid X' structure. Therefore, clitics are both heads and XPs. In Chomsky's terms, 'Assume [...] that a clitic raises from its $\theta$-position and attaches to an inflectional head. In its $\theta$-position, the clitic is an XP; attachment to a head requires that it be an $X^0$ (on fairly standard assumptions). Furthermore, the movement violates the Head Movement Constraint (HMC) [footnote omitted], indicating again that it is an XP, raising by XP adjunction. Clitics appear to share XP and $X^0$ properties, as we would expect on minimalist assumptions' [from Chomsky (1995:249)]. In this work, we adopt Chomsky's view on clitics. To be precise, however, one should say that *si* is a head, which gets the status of a maximal projection at the moment when it is merged with another element, according to the mechanisms proposed by Chomsky (1995).

Minimalist assumptions can be taken even further for *si*. For instance, *si* can be shown to display hybrid properties, such as those of a DP and of a functional head, as will become clearer in chapters 2 and 4.

However, although Chomsky's proposal seems very promising, there are a number of questions about clitics that remain open. The first question is the nature of cliticization. What exactly triggers it? In other words, why do these elements need to move or lean on other elements? Phonologically, the answer is rather straightforward: these elements are reduced, they do not

have enough weight to be able to bear stress or to appear in isolation, as we saw above. Thus, if they are base generated in a position which would bear sentence stress or would be intonationally prominent in any way, they need to move and form a phonological word with their host. Syntactically, however, the reason why these elements move (or the reason why they occupy a position to the left of the verb in finite verbs in Italian, for instance) is not so straightforward. Why do clitics move to, or are they base generated in, the position in which they appear? Why do they appear in a fixed order, and not in a random one? A very interesting proposal has recently been put forward by Bianchi (2001, 2003, 2006). According to Bianchi, cliticization of direct and indirect objects is the morphological outcome of person checking. In Italian a personal direct or indirect object must check its features against the functional structure of the clause for the sentence to be interpretable. Clitics are the morphological spell-out of this person checking. Moreover, Bianchi proposes that finiteness is a syntactic feature that encodes the logophoric anchoring of the clause. Person agreement is linked to what she calls the Logophoric Centre of the clause, in $Fin^0$. Therefore, all those elements that need to check person need to enter into some kind of checking relation with $Fin^0$. We will partially adopt this proposal in chapter 4, where the relationship between *si* and the speech act is an issue.[3]

## 3. Theoretical Assumptions

Before presenting the data and the analysis, an overview of the theoretical model that will be used in subsequent chapters is in order.

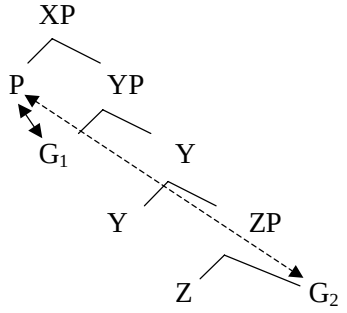
This work assumes a basic familiarity with the minimalist approach to syntactic analysis as outlined in Chomsky (1993, 1995). The model adopted is that outlined in Chomsky (2000, 2001, 2005a,b, 2006). A central point of this model is that syntactic agreement is driven by unvalued $\varphi$-features. For some parts of the present analysis, however, the minimalist model as outlined in Chomsky (2000) and subsequent work will turn out to be insufficient. In that case, we will try and integrate the missing parts, still following the minimalist line of reasoning.

### 3.1. Uninterpretable features

According to the model outlined in Chomsky (1995, 2000 and subseq.), syntactic expressions must be legible at the interface between the syntactic system and the other systems for Full Interpretation. This means that all the features which would not be interpretable by the other systems, e.g. by the phonological (PF) or by the logical system (LF), need to be eliminated before the interface levels are reached. Chomsky (2001) proposes a mechanism of elimination of uninterpretable features which can be briefly summarized as follows: some features have no value[4] and need to get valued (and consequently eliminated) before the interface with other systems is reached, or the derivation will crash. The valuation of features takes place when a Match relation between *φ*-features is established. This relation is established between a probe, i.e. an 'attractor', in terms of Chomsky 1995, and a goal, i.e. an 'attractee', as soon as possible after they enter the derivation (i.e. they are merged). The Match relation triggers an Agree relation; under Agree, unvalued features can be valued and deleted from narrow syntax.

According to Chomsky (2000), the domain of a probe is its c-command domain. Agree takes place in this domain. As a result, a Spec-Head configuration is no longer necessary in order to obtain agreement, as Agree may act 'long-distance' in the domain, though subject to locality conditions. Locality reduces to closest c-command', as illustrated in (31):

(31)




Assume that $G_1$ and $G_2$ have *φ*-sets that both potentially Agree with P; Agree between $G_2$ and P is barred by $G_1$, which is closer to P than $G_2$. The definition of closest node goes as follows: given the domain D of a probe P, a matching *φ*-set $G_2$ is closest to P if there is no matching *φ*-set $G_1$ in D

such that $G_1$ c-commands $G_2$. In the case of (30), Agree is impossible between $G_2$ and P because there is a matching $\varphi$-set $G_1$ which is contained in the domain of P and c-commands $G_2$. $G_1$ is called an intervening $\varphi$-set. For simplicity, we will talk of intervening nodes rather than intervening $\varphi$-sets. Intervention is a crucial phenomenon in explaining the agreement facts laid out in the above section.

In the context of this system of feature matching, Case cannot enter into Agree. Case 'assignment' is instead viewed as a result of an Agree relation between the $\varphi$-features of the probe and the goal. If there is Match of $\varphi$-features and Agree, there is valuation of the Case features of the argument by the functional head it Agrees with. Specifically, it is assumed that *v* assigns Accusative Case, while T assigns Nominative. In other words, structural Case is parasitic on agreement. Therefore, Case-features are never responsible for driving syntactic derivations as they were during the Government and Binding era.

In the present work, the notion of $\varphi$-set as proposed by Chomsky (and as is traditionally assumed) will be shown to be too weak to account for some agreement facts shown by Italian and other languages, including ISCs. For this analysis, in the last chapter we introduce another feature sub-set which accompanies the standardly assumed syntactic $\varphi$-set: a semantic sub-set. This semantic sub-set is made up of syntactic features encoding semantic information, such as animacy.

The mechanism of Case-checking is also slightly modified with respect to that proposed by Chomsky. In particular, we will assume that a $\varphi$-complete set is not necessary for Case to be assigned if the element which bears Case is referential. The notion of referentiality plays a central role in the present analysis. The exact mechanism for Case assignment to referential DPs will be proposed in chapter 2.

The current minimalist model outlines a mechanism according to which deletion of uninterpretable feature is not the cause of syntactic movement. Moreover, if Case assignment is 'parasitic' on Agree and Agree may take place long-distance, there seems to be no apparent trigger for syntactic movement. Chomsky (2000) proposes that the reason for movement is the existence on some functional heads of a feature called EPP, which requires the specifier of such a head to be filled. Not every head has an EPP feature, but the existence of this EPP feature on different heads is a locus of parametric variation. Of course, not every item is eligible for filling the specifier of a head. Therefore, there has to be a match between the features of the head containing the EPP and the element that moves. Thus, the move

operation is a result of the combination of Match of *φ*-features and the existence of an EPP feature on a head.[5]

### 3.2. Phases and derivations

Chomsky (1995, 2001) outlines a strictly derivational model for syntactic structures. The relations between lexical items are not representationally defined (as in the Government and Binding framework) and are established during the derivation. Following the 'Derivation by Phase' approach, we assume that the operations between features are established as soon as they are taken from the Lexical Array and enter the derivation. With Lexical Array (LA) we intend, following Chomsky (1998), the one-time selection of Lexical Items from the LEXICON. In case such items are selected more than once, they are 'numerated'. Therefore, the LA may be also called the Numeration.

The deletion of the uninterpretable features that are valued via Agree only takes place at the end of a phase. According to Chomsky (2000), the derivation of syntactic expression proceeds by phases, where each phase is determined by a lexical subarray (a sub part of the Numeration) which is placed in the active memory. Once the complement of a phase is completed, this syntactic object is sent to Spell-Out, to be given phonological content and to be interpreted. *v*P and CP are phases. Phases are 'natural syntactic objects': they are reconstruction sites, and as such they are complete interpretational units, and have 'a degree of phonetic independence' (from Chomsky 2001). In chapter 4, an alternative recent definition of phase will be used, proposed by Sigurðsson (2000a). According to Sigurðsson, vP and CP are not phases. Instead, the event phrase EP, which encodes the event structure, and the speech act phrase, which encodes information about the actual participants in the event, are considered phases.

For wh-elements or for other elements that move from the VP to the CP domain, the existence of phases should not compromise the possibility of movement. Consider for instance a sentence like *Who did you see?*. According to the model outlined so far, *who*'s features Match and Agree with the unvalued φ-features on *v*, which is the head that assigns Accusative. As a result of this Agree, *who* gets Accusative case *in situ*. Since *v*P is a phase, the verb with its complement should be sent to Spell-Out, and hence become invisible for further steps in the derivation. This

would make it impossible for *who* to raise to CP. To avoid this problem, Chomsky (2001) proposes the Phase Impenetrability Condition, here reported in (32):

(32) **Phase Impenetrability Condition (PIC)**: For a strong phase HP with head H, the domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations.
[Chomsky 2001:13]

Where the edge of a phase HP is defined as in (32):

(33) Given HP = [α [H, β ]], take β to be the domain of H and α (a hierarchy of one or more SPECs) to be its edge.

Thus, a head H and its specifiers (its edge) are still visible in a subsequent phase. This permits the movement outside the phase. Specifically, an XP moves outside a phase by using the edge as an escape hatch. Therefore, in the example above, *who* has to move to Spec, *v*P on the way to its final position.

### 3.3. θ-roles

According to Chomsky (1995) and subsequent works, θ-roles are not features, and are typically assigned within the *v*P projection. θ-role assignment differs from other kinds of assignment, such as Case, in that it is not a consequence of feature checking. θ-roles are thus not assigned parasitically on Agree, like Case, nor via a specific agreement relation. They are assigned configurationally, in the merging place of arguments. If an argument is merged in the complement position of a verb, it will get the lowest θ-role the verb can assign, and so on.

Several studies have recently shown that a strictly configurational theory of θ-role assignment like the UTAH (*Uniformity of Theta Assignment Hypothesis*), stating that 'Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure' (from Baker 1988:46), first proposed by Baker, is not enough to explain θ-role-shifts or insertion of additional θ-roles in a derivation (see Damonte 2004 for a theory of functional θ-projections). θ-roles appear to be assigned in a fixed order, and this has led some linguists to argue for a θ-hierarchy, where 'higher'

arguments receive θ-roles that are higher in the hierarchy. Another way of considering this is by saying that some functional projections are endowed with specific θ-roles, and θ-role assignment is just another form of feature checking. Building on Hornstein (2001), we may argue that the assignment of θ-roles may thus take place through an operation which resembles Agree, which respects locality constraints but nevertheless is feature checking (see Manzini & Roussou 2000, Damonte 2004). As will be shown in the next chapter, the assumption here is that arguments are merged in Event Phrases, and that they check their θ-roles against different heads than the heads of the projections they are merged in. Contrary to Hornstein, however, we assume that this kind of feature checking does not force movement. DPs possess a θ-feature which needs to be valued against the closest head which bears valued θ-features.

To conclude, for the present work the assumption is made that Case is assigned parasitically on the Agree operation, which holds between valued features on functional projections and unvalued features on lexical ones.θ-roles are also assigned this way, via an operation which values unvalued θ-features (see Hornstein 2001 for a theory of θ-roles as features).

### 3.4. Auxiliary selection

In ISCs the auxiliary BE (*essere* in Italian) is invariably used. Although auxiliary selection is not a central issue of this work, we shall discuss some mainstream proposals and select the one which is most compatible, although not completely, with the present analysis.

The main analyses of auxiliary selection (BE or HAVE) for the formation of the present perfect in Italian are mainly grouped into lexical and structural analyses. One of the first analyses of auxiliary selection in Italian was put forward by Burzio (1986), who observed that unaccusative verbs (ergative verbs in his terms), which do not have an external argument, invariably select the auxiliary BE, while transitive and unergative verbs always select HAVE. Hence, auxiliary selection in Italian is determined, according to Burzio, by the property of unaccusativity. As reported in section 2, *si* and SI are marks of unaccusativity and of impersonality respectively. In both cases, the external θ-role is not assigned, and thus *si* constructions are unaccusative. Therefore, the auxiliary BE is selected in ISCs.

A more refined analysis of auxiliary selection in Romance is proposed by Sorace (2000), who observes how Burzio's unaccusativity hypothesis for the selection of auxiliaries is inadequate to account for the facts in all Romance languages. She proposes the existence of an Auxiliary Selection Hierarchy (ASH), grounded in lexico-semantic and aspectual properties of the verbs, with the upper level of the hierarchy occupied by change of location verbs, which invariably select BE, and the lower level occupied by controlled activities, which invariably select HAVE. Since *si* insertion in a clause renders the verb 'less agentive', the auxiliary selected will be BE.

A completely orthogonal analysis of auxiliary selection in Romance is instead proposed by Kayne (1993), who starts from the assumption that possessive and auxiliary HAVE are essentially the same. Building on Szabolcsi's analysis of Hungarian possessive constructions, Kayne proposes that English has a non-overt prepositional D/P head, lower than the head where the auxiliary BE is, which allows a DP to move through its specifier. This spec-D/P is however an A-bar position, and hence the DP cannot move further into spec-BE, which is an A position. In order for this movement to be licensed, the D/P head needs to incorporate into BE. As a result, its specifier becomes an A-position, permitting DP raising. The incorporation of D/P into BE is spelled out as HAVE.

When *si* is present in the clause, Kayne argues that the clitic itself adjoins to the participial AGR head, which moves to D/P and turns its specifier into an A-position. This in turn means that the D/P does not need to incorporate into BE, and in fact it cannot incorporate. Therefore, the auxiliary will remain BE.

We will adopt Kayne's explanation for the selection of BE in ISCs. An analysis in which *si* takes an active part in the auxiliary selection process is by any means preferable to one that considers *si* simply as a part of the lexical entry of a verb or a mark of argument structure. Therefore, unless otherwise stated, we will consider the selection of the auxiliary BE as the result of the interaction of *si* with the auxiliary head in the clause.

## 4. Syntactic and semantic agreement

The complexity of agreement facts across languages has attracted the attention of many linguists. The so-called 'pragmatic' agreement phenomena are well-known. In (34), for instance, 'pragmatic' plural

agreement holds, although *the faculty* is morphologically specified as a singular noun:

(34) *The faculty are voting themselves a raise*
[from Pollard & Sag (1994:71)]

*Faculty* usually triggers singular agreement, as the example (34) shows:

(35) *The faculty is meeting on Friday*

The phenomenon of 'semantic-pragmatic agreement' is common to many languages. A well-known case of pragmatic agreement in Italian is gender agreement with names ending in *-e*, like *insegnante* ('teacher'), which triggers feminine agreement if the teacher is female, and masculine agreement if the teacher is male:

| | | | |
|---|---|---|---|
| (36) | *L'insegnante* | *è* | *brava* |
| | the-masc/fem teacher-masc/fem | is-3rd sg | good-sg-fem |
| | 'The teacher is good' | | |

| | | | |
|---|---|---|---|
| (37) | *L'insegnante* | *è* | *bravo* |
| | the-masc/fem teacher-masc/fem | is-3rd sg | good-sg-masc |
| | 'The teacher is good' | | |

The cases in (36)- (37) are quite straightforward: it is the pragmatic context in which the noun appears that determines syntactic agreement. But how does pragmatics determine syntactic agreement? In other words, how can the pragmatic component interact with the syntactic component in the derivation? We wish to propose that the traditional φ-set is not sufficient to account for cases like (36)-(37). Syntactic agreement is more complex than the simple application of Agree, and involves a larger number of features. This means that additional features might be needed (see D'Alessandro 2004a, to appear d,e for a different approach to semantic agreement). We will discuss these issues at length in the final chapter, where past participle agreement in ISCs is examined. For the moment, we will concentrate on the syntactic φ-set that characterizes impersonal *si*. The semantico-pragmatic specification of *si* will be the issue of chapters 4 and 5.

## 4.1. Syntactic agreement and the identification of syntactic features

The underlying assumption that we make for the present discussion is that syntactic categories are characterized by the unique featural composition of their components. Moreover, as a general rule, it is assumed here that if a feature is morphologically or syntactically visible on one element of the category, such a feature is present in all elements of the class. The opposite also holds: if a feature is never visible on any element of a category, this feature does not exist on that category.

Let us now consider the Italian verb *mangiare*, in its forms $LI_1$ = *mangio* (1st person) and $LI_2$ = *mangi* (2nd person). 1st and 2nd are *values*, which are assigned to the *attribute* number. A *feature* is a valued attribute (see Adger 2003 or Uriagereka 1999 for a different definition). Now, if an element 'surfaces' with a certain value, then the attribute must be present on that element, or the value would not be visible (morphologically). Let us consider again a verb like *mangiare* (eat). The form *mangio* (I eat) is morphologically marked as a 1st person form, which emerges from the comparison of this form with the forms *mangi* (you eat-2nd person), or *mangia* (he eats-3rd person). In other words, a value is visible morphologically when other values of the same kind that contrast with it are visible.

The first agreement phenomenon that comes to mind when one thinks about agreement is subject-verb agreement. This kind of agreement usually only involves syntactic features, as in (38):

(38) *Gianni* *mangia*
Gianni-masc sg eats-3rd sg
'Gianni eats'

In (38), the noun *Gianni* shows number and gender inflection, while the verb *mangia* is inflected for person and number. Can we claim that the verb carries gender? Not at all, as in no part of the paradigm does the verb show gender inflection.

Can we claim that *Gianni* carries person? The answer to this question requires an accurate consideration of the facts. As stated above, the assumption underlying the present feature-system is that when a valued attribute is present on one element of a class, all elements hold bear attribute. Let us consider *Gianni* in (38). We see that the category of nouns it belongs to does not have any value for person. There is no 2nd person

noun, or no 1st person noun. The 1st and 2nd values are, however, visible on pronouns. Since both proper names and pronouns in Italian are DPs, this entails that the person attribute is present on the category DP in Italian.

As a further example, we may consider the Russian sentences in (39) and (40). In Russian, the past tense exhibits gender features.

(39) *Ivan s''el*
Ivan ate-3rd sg masc
'Ivan ate'

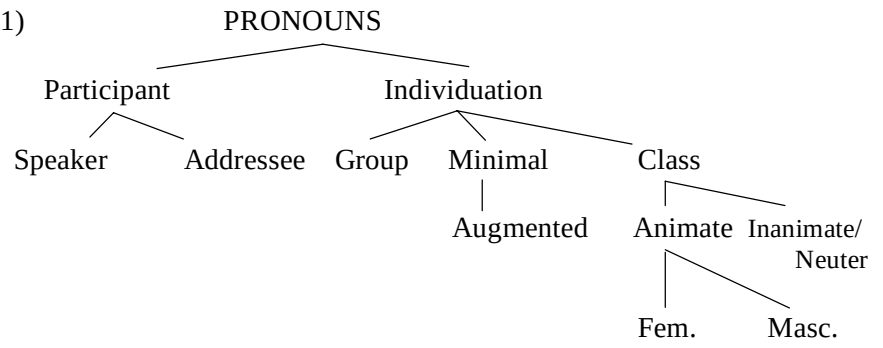
(40) *Nastja* *s''ela*
Nastja-fem sg ate-3rd sg fem
'Nastja ate'

We can conclude that Russian verbs carry gender features. The examples in (39) and (40) are meant to highlight the difference in what 'surfaces' in different languages. Moreover, we can suggest that the morphological differences allow the child to figure out what featural attributes are active in its language.

For the sake of uniformity within the general framework, we will refer to what were just called 'attributes' as 'features', and to 'features (with a value)' as 'valued features'. Moreover, we will refer to syntactic features as φ-features.

The arrangement of the features that characterize lexical items like pronouns is not as straightforward as it may seem from our description. Harley & Ritter (2002) have in fact shown how a system which is based only on person/gender/number features is insufficient to describe the feature configuration of morphologically complex pronouns. Harley & Ritter (2002) propose a feature geometry which accounts for the degree of markedness of features, reported in (41) (see also Dechain & Wiltschko 2002 for a different proposal on pronominal feature geometry):

(41)




Quite obviously, the Speaker and Addressee nodes refer, in Harley & Ritter's feature geometry, to 1st and 2nd person respectively. The 3rd person is, according to them, unmarked, and therefore corresponds to the absence of the Participant node. Moreover, according to Harley & Ritter, when only the Participant node or the Individuation node are present without further specification, i.e. when the nodes are underspecified, they receive a default interpretation. The default interpretation for the Participation node is, according to Harley & Ritter, 1st person (i.e. Speaker), while the default interpretation for the Individuation node is singular (i.e. minimal).

Harley & Ritter's feature geometry does not consider impersonal pronouns, however. As will be shown in the next section, impersonal *si* cannot be considered exactly coincident with a 3rd person pronoun. In the present work, we adopt Harley & Ritter's idea of a classification for syntactic features, expanding their feature set to include also some semantic features. In particular, we can assume that a 'node' may have two specifications at the same time. The Participant node, for example, may be specified for both Speaker and Addressee. We therefore introduce the notion of *disjunctive feature*, building on the proposal made by Wechsler & Zlatić (2001):

(42) A disjunctive feature is a feature that includes all the possible values for that feature.

In other words, a disjunctive number feature is a valued feature that has both values: singular and plural (cf. also Link 1983). We will use the term disjunctive feature in order to identify precisely this phenomenon: an element that has a doubly-valued feature.

It is worth remarking that the disjunctive feature is not included among the possibilities that Harley & Ritter propose. As an example, let us consider a disjunctive number feature, which has both the values singular and plural. According to Harley & Ritter, when both Minimal and Group are present (i.e. when both singular and plural are present), dual number obtains. In my terms, that the number feature is disjunctive does not mean that the Individuation node is underspecified (in Harley & Ritter's terms), nor that the node is specified for both Minimal-singular and Group-plural simultaneously. A disjunctive number feature is something else: it is a feature that embodies both values alternatively. In other words, there is an overspecification in the lexicon for disjunctive features. The actual realization of one or the other value on the feature is determined in the syntax. We will discuss disjunctive features at length in chapter 5 (see also D'Alessandro 2004a and D'Alessandro to appear d,e for wider use of disjunctive feature). For the moment, however, we stick to the general assumption that there are mono-valued φ-features, and they drive computation.

## 4.2. The syntactic features of impersonal *si*

As we have seen in section 4.1., Italian pronouns show morphological inflection for person and number. The specific characterization of Italian pronouns (in the Nominative form) is as follows:
(43)

| | |
|---|---|
| **io** | 1st ps sg |
| **tu** | 2nd ps sg |
| **lui/lei (egli/ella)** | 3rd ps sg masc/fem |
| **noi** | 1st ps pl |
| **voi** | 2nd ps pl |
| **loro (essi)** | 3rd ps pl |

In the discussion above, it was assumed that morphological inflection reflects syntactic features, such as number, person, and possibly gender (see Ritter 1993 and Masullo & Depiante 2003 for a discussion on whether gender is a syntactic or a lexical feature). The feature composition of *si* is not so straightforward, because of its syncretistic morphological forms, and because of the unusual agreement patterns the insertion of *si* in a clause generates.

### *4.2.1. The syntactic number feature of* si

Since 3rd person inflection appears on the verbs that accompany *si*, it is usually assumed that *si* has a singular number feature (Napoli 1976, Belletti 1982, Burzio 1986):

(44) *Domani* *si dorme* *un'ora* *in* *più*
tomorrow si sleeps 3rd sg an hour in more
'Tomorrow people will have one extra hour of sleep'

However, Chierchia (1995b) shows that *si* is semantically plural, as it introduces a group of referents in the discourse. The issue is the relation between semantic and syntactic plurality. Specifically, the question is whether semantic plurality has a syntactic counterpart. Let us consider the following sentence:

(45) *Al* *giorno* *d'oggi* *si è* *simpatici*
at-the day of-today si is-3rd sg nice-masc pl

*solo* *se* *si è* *ricchi*
only if si is-3rd sg rich-masc pl
'Nowadays one is nice only if he/she is rich'

(45) seems to show that *si* has a syntactic plural number feature, because it is the only element in the clause to which the adjective may refer. The following example, from Salvi (1991), however, is often reported as a counterexample to the claim that *si* is plural (see Egerland 2003a):

(46) *Quando si è il presidente degli Stati Uniti,...*
when si is the president of-the States United
'When one is the president of the United States, ...'

In (46), a singular noun is allowed in the predicative construction. If we take the copula *essere* (BE) to signal identity of features, as is usually assumed, we can conclude that *si* and *il presidente* carry the same singular feature. Therefore, *si* may not be syntactically plural. As an additional piece of evidence for the claim that *si* is not syntactically plural, it is worth noticing that the behavior of *si* is not exactly parallel to that of a 3rd person plural pronoun like *loro*, as shown by examples (47) and (48) (for the assumption that  is 3rd person, see the next subsection):

(47) *Loro mangiano*
they-3rd pl eat-3rd pl
'They eat'

(48) *Si mangia*
si eats-3rd sg
'People eat'

In (47), the 3rd plural pronoun triggers plural agreement on the verb, while *si* in (48) triggers singular agreement. But if *si* were plural it should naturally behave like all other plural pronouns. Let us consider the next two sentences:

(49) *Loro hanno mangiato*
they have-3rd pl eaten-pp sg
'They have eaten'

(50) *Si è mangiato*
si is-3rd sg eaten-pp sg
'People have eaten'

(49) contains a 3rd person plural pronoun, which triggers 3rd person plural agreement on the auxiliary.  Evidently, *si* does not trigger the same kind of agreement on the auxiliary. If *si* were syntactically plural, one would expect to see a syntactic configuration as in (51), which is never the case:

(51) **Si sono* *mangiato/i*
si are-3rd pl eaten-pp masc sg/pl

The contrast between *si* and 3rd person plural pronouns becomes even sharper if one compares (52) and (53):

(52) *Loro* *sono* *arrivati*
they are sc-3rd pl arrived-pp pl
'They have arrived'

vs.

(53) *Si è* *arrivati*
si is-3rd sg arrived-pp pl
'People have arrived'

Again, in (52) both the past participle and the auxiliary show plural inflection, while in (53) the participle is plural and the auxiliary is singular.

Recapitulating, there is conflicting syntactic evidence concerning the number feature of *si*: sentences like (44) and (46) seem to show that *si* is singular. Sentences like (45) and (53) on the other hand seem to show that it is plural. More specifically, (53) seems to suggest that *si* is both singular and plural at the same time.

To provide a solution for this puzzle, let us first consider some observations: first, a verb which agrees only with *si* always shows singular inflection. Second, the range of contexts in which the singular and plural features appear is different. In particular, adjectival (and participial) inflection seems to reflect plural number feature, whereas verbal inflection seems to reflect singular number feature. A straightforward solution which reconciles both sorts of facts is to say that adjectival and verbal agreement are two different operations, which involve two different sets of features. We will explore this possibility in chapter 5.

We wish to propose that *si* has an unvalued number feature, which is further specified as bearing a plural sub-feature. As seen in section 4.1., 'primary' features may bear sub-features, and therefore we wish to propose that the syntactic unvalued number feature of *si* bears a sub-feature that encodes semantico-pragmatic information on the plurality of the reference set of *si* (see Sauerland 2003 for a proposal on semantic number features).

In chapter 5, it will be shown how adjectival/participial agreement obtains with an unvalued syntactic number feature and with a semantic plural number sub-feature. A detailed account of the agreement patterns presented in this section is provided in chapter 5.

### *4.2.2. The syntactic person feature of* si

The agreement ending on the verbs which appear 'in combination' with *si* is always 3rd person. As we have seen in the last section, however, agreement facts do not provide incontrovertible evidence of the feature composition of *si*.

A first attempt to classify pronouns according to person may be found in Benveniste (1966). In his classification, Benveniste sets 3rd person pronominals apart from 1st and 2nd person ones. He claims that 3rd person pronominals have 'no person'.

A development of Benveniste's analysis is offered by Bonet (1991). The distribution of clitics in Barceloni Catalan shows how reflexives pattern with 1st and 2nd clitics, and are distinct from 3rd person clitics. Along the same lines, Kayne (2000) provides a detailed classification of clitics in Romance, showing how reflexive *si* patterns with 1st and 2nd clitics for several reasons: morphological inflection, syntactic interaction with other elements in the clause and distribution. Yet, impersonal *si* cannot be considered identical to reflexive *si.* In fact, impersonal and reflexive *si* differ from each other in several respects:

- *Referentiality:* There is a difference between impersonal and reflexive *si* in referentiality: impersonal *si* is, at least partially, referential, while reflexive *si* is not referential by itself. It always needs to be bound by an antecedent in order to get its reference.

- *Morphological inflection*: Impersonal *si* shows syncretistic morphological inflection, while reflexive *si* shows a whole paradigm. The table in (18) showed the inflectional paradigm of reflexive *si*; impersonal *si* does not show rich morphological inflection.

- *Distribution*: There are also differences in the distribution of reflexive and impersonal *si*, as shown in (54) and (55):

(54) *Gianni e* *Maria* *se* *lo* *sono* *raccontato*
Gianni and Maria si-refl it-acc are told
'Gianni and Maria have told each other that'

vs.

(55) *Lo* *si è* *raccontato*
it-acc si is told
'People have said this'

As we can observe, the accusative clitic *lo* follows reflexive *si* and precedes impersonal *si*. This is enough to doubt the possibility of extending Kayne's generalizations to impersonal *si* as well.

In the literature, there are three main proposals concerning the person feature of *si*: Burzio (1986) proposes that impersonal *si* has no person feature. On the other hand, Manzini (1986) assumes that the person feature on *si* is underspecified. Third, Cinque (1988) proposes that *si* holds a generic person feature, which he calls *arb*. This feature is a (not better defined) syntactic marker for unspecified person, which needs to combine with a personal AGR head, i.e. with a finite verb. Our assumptions about the person feature of *si* may build partially on this last approach. However, in contrast to Cinque's analysis, the distinction is drawn here between syntactic and semantic person.

On the basis of the reasoning in 4.1, the assumption made here is that pronouns in Italian are all inflected for person, even 3rd person pronouns, which are usually considered to lack a person feature. Therefore, *si* must also bear a person feature. The existence of a person feature on *si* can be independently shown by considering a particular restriction on the person feature of the object in ISCs. In a sentence like *Si vendono delle macchine* ('Some cars are on sale/Cars are being sold'), the object *le macchine* can only be third person. In chapter 3, it will be shown how the person feature of impersonal *si* is responsible for this restriction. *Si* is therefore assumed to bear a person feature.

The question, then, is which person is it? One can state with an acceptable degree of certainty that *si* is not 1st or 2nd person, because 1st or 2nd inflection never shows up on the verb when impersonal *si* is present. It

seems quite obvious to conclude that *si* has a 3rd person feature. With this assumption, we depart from Harley & Ritter's definition of a 3rd person as a no-person feature. We assume instead that a verb shows 3rd person agreement when the DP it agrees with:

- lacks the person feature

or

- bears a 3rd person feature, i.e. a valued person feature with the value 3rd

To conclude, we can argue that *si* is syntactically 3rd person, and similarly to other 3rd person pronouns. Both *si* (and 3rd person pronouns) and DPs trigger 3rd person syntactic agreement on the verb.

It needs to be said that this cannot be the whole story, since the reference set of *si* varies quite a lot, as we will see in chapter 4. Therefore, we wish to propose that *si* bears an [arb] sub-feature, which needs to be valued in order for the sentence to become interpretable. We will discuss the mechanism of valuation of [arb] in chapter 4.

### *4.2.3. The gender feature of* si

The gender feature of *si* is also not clear-cut. If we take a look at agreement facts, we discover that *si* does not force either gender agreement:

(56) *Se si ha una Ferrari si è ricchi*
if si has-3rd sg a Ferrari si is-3rd sg rich-pl
'If one has a Ferrari, one is rich'

(57) *Se si è sante si va in convento*
if si is-3rd sg saint-fem pl si goes-3rd sg in convent
'If one is a saint, one should go to a convent'

In (56), *si* triggers masculine agreement on the adjective. In (57), it triggers feminine agreement. We can assume that *si* has an unvalued syntactic gender feature. However, since we do see syntactic gender agreement on the adjective in (56) and (57), we wish to propose that *si* bears a disjunctive gender feature. We will explore this proposal in more depth in chapter 5, together with the agreement facts in (56) and (57).

So far, we have seen that *si* has unvalued syntactic number, 3rd person, and unvalued gender. Moreover, it bears a plural number sub-feature, an [arb] person sub-feature, and a disjunctive gender sub-feature. It is clear that this feature set is rather unusual. However, as we will see in detail in the next chapters, *si* seems to be halfway between a lexical and a functional element, and this feature set is therefore appropriate to define its status.

A question now remains open: if *si* has unvalued features, and if it is the only DP present in the derivation, how can it possibly value unvalued features on the functional heads in the clause? We can certainly see that in a sentence like (58) the verb is inflected as 3rd person and default singular:

(58) *Si mangia*
si eats-3rd sg
'One eats'

How does the verb get the default ending? We will discuss this briefly in the next section.

## 4.3. Default agreement

The problem of default agreement is a tricky one, as it is not at all clear what conditions allow default valuation to take place. It is clear that one cannot assume default valuation to take place every time a feature cannot otherwise be valued, because this would entail that no derivation would crash for lack of feature valuation, and that every unvalued feature would be valued before reaching the interface level. This claim is empirically wrong. As an example, consider an ungrammatical sentence like **John eats an apple a banana*. Should default valuation take place every time we have an unvalued feature, this sentence would not be ruled out, since the Case feature on *a banana* could be valued as Accusative by default.

The idea that default valuation takes place every time a feature is left unvalued is therefore in principle wrong, and we believe that there must be some restrictions to applying default valuation. We wish to propose that default agreement only takes place when Match of unvalued features is met. We can rephrase this by saying that default agreement takes place when two features are in a simple dependency relation such as the one outlined by Lopez (to appear). According to Lopez (to appear), two features that are in a c-command relation can establish a Match relation even if both

are unvalued. He calls this configuration a 'simple dependency'. When features are in a simple dependency relation, they will never be able to be valued differently from one another, because of a principle that Lopez calls Full Sharing, which is basically equivalent to Chomsky's non distinctness.

We wish to propose that if both the features that enter a Match relation are unvalued, i.e. if two features are in a simple dependency relation, they will still be able to be valued by default at PF. In other words, PF will see that there are two unvalued features in a Match relation, and it will assign these features a default value. This does not hold when a feature is missing altogether from an element and is present, but unvalued, on another. In this case, no Match can possibly take place and default agreement does not obtain. The default values for Italian are 3rd person, singular, and masculine.

Finally, we wish to propose that full Match of φ-features is sufficient for Case to be valued. This means that a Case feature can be valued even if the DP is not in an full Agree relation with a functional head, but only in a full Match relation.

## 4.4. Conclusions

Impersonal *si* constructions present agreement patterns that are quite peculiar when compared with standard agreement facts in Italian. This is mainly due to the interaction of *si* with other elements in the clause, and with the feature set that characterizes *si*. In this chapter, we have tried to provide an inventory of the syntactic features that characterize *si*. Moreover, we have presented the general framework in which the analysis will be placed, and summarized the main classifications that have been given to all the instances of *si* in Italian. In what follows, we will introduce and analyze some syntactic phenomena that have been overlooked so far, and offer an analysis for these phenomena that will hopefully make the general picture of ISCs in Italian better defined.

# Chapter 2
# Agreement patterns of transitive ISCs

## 1. Introduction

As noted in the previous chapter, impersonal *si* constructions (ISCs) display peculiar agreement patterns. With transitive verbs, the verb may or may not show agreement with the direct object, which in turn bears Nominative or Accusative case, as shown in (1) and (2).

(1) *In Italia si mangiano* *gli* *spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-masc pl
'In Italy they eat spaghetti'

(2) *In Italia si mangia* *(gli)* *spaghetti ...*
in Italy si eats-3rd sg the-masc pl spaghetti-masc pl
'In Italy they (keep) eat(ing) spaghetti'

The agreement patterns presented in (1) and (2) are not only found with consumption verbs like *eat*, but can occur with virtually any transitive verb. Examples (3) to (6) also instantiate this alternation:

(3) *Qui* *si fabbricano (delle)* *case*
here si build-3rd pl of-the-fem pl houses-fem pl
'Houses are built here'

(4) *Qui* *si fabbrica* *(le)* *case*
here si build-3rd sg of-the-fem pl houses-fem pl
≈ 'All they do here is build houses'

(5) *In biblioteca* *si leggono* *(i)* *libri*
in library si read-3rd pl the-masc pl books
'In a library one reads books'

(6) *In biblioteca* *si legge* *(i)* *libri*
in library si reads-3rd sg the-masc pl books
≈'What one does in a library is read books'

The agreement alternations found in transitive ISCs have often been considered a 'secondary' phenomenon, derived from the special properties of *si*, such as its capacity for absorbing a θ-role or Case. In this chapter, some arguments for the hypothesis that the agreement patterns of ISCs with transitive verbs reflect an aspectual difference are provided. It will be shown that an ISC with verb-object (V-O) agreement is not semantically equivalent to an ISC without V-O agreement, as has often been assumed (Belletti 1982, Burzio 1986, Cinque 1988, Dobrovie-Sorin 1998, 1999): an ISC with V-O agreement usually encodes an accomplishment (i.e. an event with duration and an endpoint), while an ISC without V-O agreement encodes an activity (i.e. an event with duration but no endpoint). In the case of examples (1)-(6), (1), (3) and (5) are indeed accomplishments, whereas (2), (4) and (6) are activities in the sense of Vendler (1967). The peculiar agreement patterns of such ISCs reflect their semantic difference, and are not imputable to special properties of *si*; they are instead determined by the interaction of *si* with the structure in which it is merged, and by its clitic status. In the case of V-O agreement in (1)-(3)-(5), *si* is merged in the specifier of a VP-internal projection, EP (Travis's 1994 inner aspect; Ramchand 1997, 2006; see also Kempchinsky 2000). From that projection, which is only available for an accomplishment structure, *si* intervenes in the assignment of Accusative. Such an intervention does not take place in (2)-(4)-(6), where the inner aspectual position is not present and therefore *si* cannot be merged there. Consequently, Accusative is assigned to the direct object.

One can easily object to the proposal that has just been outlined by claiming that these sentence pairs are different because in the V-O agreement ISCs the definite article creates telicity, and therefore these constructions are accomplishments because of the presence of the determiner and for no other reason. In section 2.3, however, it will be shown that this is not the case, firstly because the determiner can also be present in ISCs without V-O agreement, and also because there is no one-to-one correspondence between the presence of the determiner and telicity (see also Ramchand 2006). The relation between the presence/absence of a definite article and the event type of the VP will be discussed in more detail in that section.

This section is aimed at providing the general background for the analysis of ISCs. It is organized as follows: to begin with, some terminological issues are considered in section 1.1. In section 1.2.2., the

idiolectal variation in modern Standard Italian is examined. It is well known that Italian regional varieties differ greatly with respect to the use of ISCs. The data that were collected, however, show that Florentine (and Tuscan in general) aside, the variation in the use and grammaticality judgments is not regional but rather idiolectal in nature. Next, section 1.3. presents the data in 1.2.2. in a systematic way. Section 1.4. is devoted to the presentation of the main proposals that have been made to account for the agreement discrepancies outlined above.

The rest of the chapter is organized as follows: section 2 presents the theoretical background of the aspectual classification of verbs, and in particular the aspectual classes to which (1)-(3)-(5) on the one hand and (2)-(4)-(6) on the other will be shown to belong. Moreover, section 2 elaborates on the behavior of transitive ISCs in the present tense. The *Aktionsart* of ISCs with and without V-O agreement will be considered, and these two constructions will be shown to be instantiations of accomplishments (ISCs with V-O agreement) and activities (ISCs without V-O agreement). Cross-linguistic evidence will also be provided. The interpretation of impersonal *si* will be shown to depend strictly on both the syntactic assessment of the clause in which it appears (sentential aspect) and the VP describing the event (inner aspect). This makes it plausible to assume that *si* is merged in an inner aspectual projection when one is present. Moreover, the data indicate that an approach according to which semantic information is encoded in the syntax of a VP is preferable to one according to which the inner aspectual information is only listed in the lexicon. This second approach would leave the ISC transitive agreement alternation unexplained. Section 3 is devoted to the derivation of the agreement patterns of transitive ISCs with and without V-O agreement. The hypothesis put forward is that in ISCs with V-O agreement impersonal *si* is merged in the specifier of a functional projection encoding telicity and from there it intervenes in the assignment of Accusative Case. This intervention effect does not take place in ISCs without V-O agreement, which do not have a projection where telicity is encoded and therefore force *si* to appear in a non-intervening position. Finally, achievement verbs are shown to present agreement patterns that resemble those of ISCs with V-O agreement (accomplishments), as expected, given their intrinsic telicity. Section 4 contains the conclusions.

### 1.1. A terminological issue

In the literature, there is significant disagreement about the status of (1) and (2)[6]: some linguists distinguish between a 'passive *si*' in sentence (1), and a proper 'impersonal *si*' in sentence (2). This approach is taken, for instance, by Salvi (1991). Other scholars draw the line between an 'impersonal passive *si*' in (1), and an 'impersonal active *si*' in (2) (see, for instance, Belletti 1982 and Roberts 1987). On another view, put forward by Cinque (1988), both (1) and (2) are impersonal-arbitrary constructions. This view is also shared by Salvi (1988), among others. Finally, Dobrovie-Sorin (1999) vacuously unifies the two sentences under the name of 'middle-passive *se*'.

In this work, the definition 'impersonal *si* construction' is used for both (1) and (2). The expression 'passive *si* construction' will only refer to sentences like the one exemplified in (7), where *si* becomes the subject of predication:

(7) *Si è* *visti* *da tutti*
si is-3rd sg seen-pp masc pl by everybody
'One is/we are seen by everybody'

The sentence in (7) is very similar to a proper passive: while a *by*-phrase may (and, in fact, does) appear in (7), just as it may appear in proper passives, it may not appear in sentences like (1) and (2). A sentence like (8) is in fact ungrammatical as it does not license a *by*-phrase, while a proper passive (9) does:

(8) **In Italia* *si mangiano* *gli* *spaghetti*
in Italy si eat-3rd pl the-masc spaghetti-masc pl

*da* *tutti*
by everybody

(9) *In Italia gli* *spaghetti* *sono*
in Italy the-masc pl spaghetti-masc pl are-3rd pl

*mangiati* *da tutti*
eaten-masc pl by everyone
'In Italy spaghetti is eaten by everyone'

(7), like (9), is a proper passive. (1) and (2) are not. The contrast between (7) and (8) was first observed by Cinque (1976).

A third kind of *si* that is relevant to our analysis, as it also introduces an unspecified subject in the clause, is the so-called 'middle *si*'. An example of middle *si* was given in (11), in chapter 1, and is here repeated as (10):

| | | | | |
|---|---|---|---|---|
| (10) | *Queste camicie* | *si* | *lavano* | *facilmente* |
| | these shirts | si | wash-pl | easily |
| | 'These shirts wash easily' | | | |

In middle *si* constructions, there is V-O agreement as in ISCs. It is however required that the object raises to a preverbal position. These constructions are also characterized by the presence of a modal adverbial, like *easily* or *smoothly*. The agreement patterns of middle *si* are not different from those of impersonal *si* with V-O agreement, however, and therefore no distinction will be made between impersonal and middle *si* constructions in this chapter.

## 1.2. The data

ISCs without V-O agreement have often been considered a variant of ISCs with V-O agreement. For most scholars, (1) and (2) involve the same structure, with the difference between the two constructions being ascribed to the realization of optional properties of *si* (such as the absorption of the external $\theta$-role)[7]. This approach is mainly adopted by Belletti (1982) and Burzio (1986). Cinque (1988) argues instead for a difference in the argumental nature of *si*. He proposes an elegant way to overcome optionality: only argumental *si* may absorb the external $\theta$-role, while non-argumental *si* may not. These analyses will be presented in more detail in section 1.4.

In this section, the synchronic data that were collected are presented; two 'prototypical' transitive ISCs are isolated, which will be analyzed in the subsequent sections. For the other, 'non-prototypical' sentences, which belong to a mixed type, a tentative explanation is provided in chapter 5.

### *1.2.1. A historical note*

The use of *si* as an impersonal pronoun developed at a very early stage of Italian. According to Wehr (1995), both the V-O agreement form of the type exemplified in (1) and the non V-O agreement form in (2) derive from Latin reflexive *se*. *Se* was exclusively used in reflexive sentences, where the subject and the object of a predicate were considered to coincide. This use has continued in Modern Italian, alongside the newly introduced impersonal use.

The alternation between a reflexive pronoun and proper passive morphology began in the Late Latin period (see Monge 1955, Brambilla Ageno 1964, Vera Lujan 1992, and Kemmer 1993). According to Kemmer, in Late Latin, *se* was also essentially confined to the reflexive use, but there were frequent alternations between the *-r* morphology of passive and deponent verbs and *se*. Apparently, the impersonal construction in Romance began as a subjectless one, in which *se* signalled the suppression of the Agent $\theta$-role, or provided the verb with an additional stylistic flavor, such as vagueness or indeterminacy.

Concerning the two main agreement patterns of ISCs with transitive verbs, Wehr (1995) claims that the first forms attested were those without V-O agreement.

Also according to Wehr, however, the non-agreeing form was mainly used in Northern Italy, because the third person singular and plural of the verb were coincident. This is enough for us to doubt the antecedence of one or the other construction. If the singular and the plural forms of the verb coincide, it is impossible to understand whether the verb did or did not agree with the object.

Ideally, the two forms (agreeing and non-agreeing) should show a difference in interpretation. This difference is not easily detectable from the data we have at hand. This issue is therefore left open for further research.

### *1.2.2. Idiolectal variation*

It has often been observed (Lepschy & Lepschy 1977, Cinque 1988) that the use of the variant in (2) is not so common. More specifically, while all Italian speakers use the agreeing form in (1), not all of them accept or produce (2). The data presented in this book were collected by asking 10 native speakers of Italian, from different regions, to give their

grammaticality judgments on 18 sentence groups, built with the lexical items of the sentences (1)-(6) above. The native speakers were also asked to provide a short explanation of the sentence meaning, and the context in which they would use these sentences. For exposition purposes, we will reproduce here only one sentence per group, and only those sentences that are relevant for this section.

(11) *In Italia si* *mangiano* *gli* *spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-pl masc
'In Italy they eat spaghetti'

(12) *In Italia si mangia* *spaghetti*
in Italy si eats-3rd sg spaghetti-masc pl
'In Italy they keep eating spaghetti'

(13) *In Italia si* *mangia* *gli* *spaghetti*
in Italy si eats-3rd sg the spaghetti-masc pl
'In Italy they (keep) eat(ing) spaghetti'

(14) *In Italia si mangia* *gli* *spaghetti* *a tutto spiano*
in Italy si eats-3rd sg the spaghetti-masc pl continuously
'In Italy they eat spaghetti all the time'

(15) *In Italia si mangia* *spaghetti* *a tutto spiano*
in Italy si eats-3rd sg spaghetti-masc pl continuously
'In Italy they eat spaghetti all the time'

The acceptability judgments collected are quite telling. It seems that the acceptability of the sentences above is not determined by regional/dialectal criteria. The variation seems to be idiolectal. The Florentine (Tuscan) speakers, however, do constitute a group of their own: for all of them the sentences above are all equally acceptable. This might be due to the fact that Florentine has lost the use of the 1st person plural verbal ending altogether (A. Belletti, p.c.). This form has been replaced with the impersonal *si* construction. Table 1 offers a survey of the grammaticality judgments that have been expressed by the native speakers:

(16) Table 1.

| | OK | ? | ?? | * |
|---|---|---|---|---|
| (11) | 10 | -- | -- | -- |
| (12) | 4 | -- | 4 | 2 |
| (13) | 2 | 2 | 1 | 5 |
| (14) | 1 | 2 | -- | 7 |
| (15) | 9 | -- | -- | 1 |

The regional distribution of the judgments is exemplified in Table 2:

(17) Table 2.[8]

| | Fano[9] | $Rome_1$ | $Rome_2$ | PD | $MI_1$ | $MI_2$ | AQ | TE | $FI_1$ | $FI_2$ |
|---|---|---|---|---|---|---|---|---|---|---|
| (11) | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK |
| (12) | * | ?? | ?? | * | OK | ?? | OK | # | OK | OK |
| (13) | * | # | ? | # | ?? | * | * | ? | OK | OK |
| (14) | # | # | # | * | ? | * | * | ? | * | OK |
| (15) | OK | OK | * | OK | OK | OK | OK | OK | OK | OK |

Unsurprisingly, (11) is accepted by all speakers: it is the unmarked form with which Italian speakers usually realize ISCs. (12) is not as well accepted. There are a few question marks and 2 'ungrammatical' judgments. (13) is also not so well accepted as (11). 5 speakers out of 10 consider the sentence ungrammatical or unutterable, 3 speakers consider it interpretable but 'unutterable' to varying degrees. There are in fact only 2 speakers who judge this sentence as completely grammatical. (14) has been judged as perfectly grammatical only by one speaker, and slightly ungrammatical by 2 speakers. The rest of the group considers the sentence very strange or ungrammatical. Interestingly, the elimination of the definite article in (15) turns the ungrammatical sentence in (14) into a fully acceptable one: the judgments here are quite neat. The sentence is ungrammatical for 1 speaker, and fully acceptable for the rest of the group. In particular, the definite article appears to play an important role in acceptability judgments. As stated above, however, it is not obvious why the drop of the definite article should affect the grammaticality/usability judgments so neatly. We will return to the issue of the definite article in section 2.3. It is also worth observing that positively assessed (15) is obtained from (13) with the addition of a frequency/modal adverbial. Example (12) will be discussed in section 3.4.

For the moment, we can concentrate on the two sentences that have been recognized by most speakers as the most acceptable, namely (11) and (15), which illustrate the 'prototypical' agreement patterns. From now on, we will refer to (11) as an ISC with verb-object (V-O) agreement, and to (15) as an ISC without V-O agreement. In what follows, the two constructions in (11) and (15) are examined in detail. First, a short overview is provided of the previous accounts of ISCs with and without V-O agreement that have been put forward over the years. After a brief comment on these analyses, an alternative account is introduced in section 3.

### 1.3. Case and agreement in transitive ISCs

In the present tense, ISCs with transitive verbs show the two main agreement patterns introduced in (11) and (15) [(1) and (2)]. Within the first pattern, exemplified in (1) and here repeated as (18), the verb agrees with the object DP:

(18) *In Italia si mangiano gli spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-pl masc
'In Italy they eat spaghetti'

In (18), *gli spaghetti* is an internal argument. This can be shown by substituting the partitive particle *ne*, which can only substituted for internal arguments, as shown by Belletti & Rizzi (1981), and Burzio (1986) among others. This is exemplified in (19):

(19) *In Italia se ne mangiano*
in Italy si of-them eat-3rd pl
'In Italy they eat it'[10]

The other agreement pattern involves an object which does not agree with the verb. The verb ending is 3rd singular:

(20) *In Italia si mangia spaghetti*
in Italy si eats-3rd sg spaghetti-masc pl
'In Italy, they eat spaghetti'[11]

The object *gli spaghetti* in (20) is also an internal argument, as shown by the fact that it can be replaced by *ne*:

(21) *In Italia se ne* *mangia*
in Italy si of-them eats-3rd sg
'In Italy they eat it'

Moreover, in (18), *gli spaghetti* carries Nominative case, while in (20) it carries Accusative. This is shown in (22) and (23) respectively, where the DP object *gli spaghetti* is replaced by a personal pronoun. Personal pronouns in Italian are morphologically marked for Case, and therefore help us to detect the Case of the DP in question.

(22) *In Italia essi/* **li* *si mangiano*
in Italy they-nom 3rd pl them-acc 3rd pl si eat-3rd pl
'In Italy they eat it'

(23) *In Italia li/* **essi* *si*
in Italy them-acc 3rd pl they-nom 3rd pl si

*mangia*
eats-3rd sg
'In Italy they eat it'

(22) and (23) show that there is a one-to-one correspondence between V-O agreement and Nominative case on the object, and between lack of verb agreement and Accusative case on the object. Moreover, (22)-(23) tell us that the object in ISCs with V-O agreement is undoubtedly Nominative, whereas the object in ISCs without V-O agreement is Accusative.

Moreover, it is also worth underlining that verbal agreement in Italian only occurs with Nominative DPs. In other words, the presence of Nominative case on a DP shows that agreement with the verb has taken place.

To summarize: ISCs with V-O agreement exhibit a Nominative object that agrees with the verb. ISCs without V-O agreement exhibit an Accusative object which does not agree with the verb. In this case, the verb shows 3rd singular inflection.

### *1.3.1. ISCs with transitive verbs in the past tense*

The agreement patterns of the past tense of ISCs resemble those of the present tense. There are also two main patterns for the past tense, but one of them is no longer in use. The past tense of (18) is (24):

(24) *Si sono* *mangiati* *gli* *spaghetti*
si are-3rd pl eaten-masc pl the-masc pl spaghetti-masc pl
'They/we have eaten spaghetti'

In (24), the auxiliary agrees with the object, just like the finite verb does in (13). The past participle (pp henceforth) also agrees with the object. It is important to bear in mind that the features that are responsible for past participle agreement, however, might be different from those that are responsible for auxiliary agreement, as will be shown in chapter 5.

The past tense of the ISC with no V-O agreement in (20) is (25):

(25) ? *In Italia si è* *mangiato* *spaghetti*
in Italy si is-3rd sg eaten-masc pp sg spaghetti-masc pl
'In Italy they/somebody ate spaghetti'

Surprisingly, for some speakers, also the version in (26) is acceptable:

(26) *Si è* *mangiati* *gli* *spaghetti*
si is-3rd sg eaten-pp masc pl the spaghetti
'They/somebody have/has eaten spaghetti'

The pp-auxiliary split in (26) might reflect the division between syntactic and semantic features. We will return to the issue of the past tense agreement in chapter 3. In (25), instead, there is no V-O agreement, and in fact neither the auxiliary nor the pp agrees with the object.

## 1.4. Previous analyses: an overview

In the analysis of ISCs, two main theories have up until now been adopted in the literature. According to one view, *si* is a pronoun, and as such it may bear or withdraw Case and absorb or receive $\theta$-roles. According to the other

view, *si* is a functional head, 'more related to verbal inflection than to VP arguments' (Manzini & Savoia 2002). The former view is, at least partially, maintained by Belletti (1982), Burzio (1986), Cinque (1988) and Dobrovie-Sorin (1998). The latter one is maintained by Manzini & Savoia (2001, 2002), Kempchinsky (2000), and Cuervo (2002). Crucially, all those analyses which consider *si* as a functional head totally disregard the agreement under examination. This is simply due to the fact that if *si* is considered a head, it is usually thought of as not being able to receive Case or a $\theta$-role (even though it could, according to Roberts 1987 and Manzini & Savoia 2001). In addition, those approaches that consider *si* a functional head cannot account for the Rumanian data exemplified in (27). In Rumanian there is an impersonal construction that mirrors that found in Italian, namely an impersonal *se* construction with V-O agreement. In this construction, *se* is morphologically marked for Accusative[12]. We can take this as a piece of evidence that *se-si* actually gets Accusative, and does not block its assignment (cf. Belletti 1982, Roberts 1987).

(27) *În Italia se* *citesc* *cărți* *bune*
in Italy si-acc read-3rd pl books-nom fem pl good-fem pl
'In Italy they read good books'

The data in (27), together with the general considerations outlined above lead us to conclude that *si* needs to be treated as a pronoun. Evidently, this does not exclude a correlation of *si* with functional projections. In fact, the aim of this chapter is to show that *si* is related to the aspectual specification of the sentence in which it appears, but that it is nevertheless a pronoun, which may receive a $\theta$-role and Case.

### *1.4.1. Optionalily in θ-role absorption*

Among the proposals that consider *si* as a pronoun, one of the most relevant is that put forward by Belletti (1982). According to Belletti, ISCs with V-O agreement, like (1), repeated as (28) below, are instances of 'morphological' passive. *Si*, acting as a passive morpheme, is able to absorb Accusative case, which V would normally assign to its direct object. In this case, *si* also absorbs the external $\theta$-role. A passive configuration is

created, which requires the direct object to move to subject position and get Nominative case.[13]

The case of ISCs without V-O agreement is different, according to Belletti (1982), because in this case *si* does not absorb Accusative Case, but is instead assigned Nominative. No passive phenomenon is consequently produced, and Accusative is normally assigned to the object. *Si* receives Nominative being governed by the INFL head, which may receive a *θ*-role and Case because it is pronominal (i.e. it licenses an empty subject). ISCs without V-O agreement are therefore instances of *pro*-drop.

Belletti's analysis, explanatorily adequate as it may be, suffers from some flaws. The claim that (1), an ISC with V-O agreement, here repeated as (28), is a passive-like construction is hazardous.

(28) *In Italia si mangiano* *gli* *spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-pl masc
'In Italy they eat spaghetti'

Passive constructions in Italian license *by*-phrases. ISCs, like (28), do not, as shown in (29)-(30):

(29) *In Italia gli spaghetti* *sono* *mangiati* *da* *tutti*
in Italy the spaghetti are eaten by everybody
'In Italy spaghetti is eaten by everybody' [PASS]

(30) **In Italia si mangiano* *gli* *spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-pl masc

*da tutti*
by everybody
'In Italy spaghetti is eaten by everybody' [ISC]

The insertion of a *by*-phrase in an ISC like (28), as in (30), causes the sentence to be ungrammatical. Hence, (28) cannot be a true passive like (29), as in Italian true passives the agent has been deleted and can therefore re-emerge in the form of an agent *by*-phrase. In (30), an agent is already present, and another agent cannot be inserted in the clause.

Interestingly, both ISCs with and without V-O agreement exhibit the same behavior with respect to the insertion of a *by*-phrase, as (31) shows:

(31) **In Italia* *si mangia* */mangiano* *gli* *spaghetti*
in Italy si eat-3rd sg /eat-3rd pl the spaghetti

*da tutti*
by everybody
'In Italy spaghetti is eaten by everybody'

The fact that a *by*-phrase is not licensed in either ISCs with V-O agreement or ISCs without V-O agreement indicates that both these constructions probably involve instances of the same voice. In other words, there is no reason to claim that ISCs with V-O agreement are passive-like constructions while ISCs without V-O agreement are active constructions.

Secondly, Belletti does not provide any explanation of the reason why *si* should in one case absorb a $\theta$-role and Accusative Case while it does not in the other. The properties of a lexical item should not depend on the context in which it appears. In other words, it would be preferable to find an analysis in which the lexical item is defined in one way only, and is insensitive to its environment. In Minimalism, syntax is conceived as a blind component, and therefore as a component that is unable to change the characteristics of a feature set denoting a lexical item or to select the features that are necessary for a derivation to converge. Therefore, if an unappropriate feature set characterizing a lexical item is selected, the derivation will simply crash, but syntax will not be able to change or affect this feature set in order to prevent the crash from happening. In this work, we wish to show that there is no need to appeal to optionality or 'look ahead' selection, as the alternation between ISCs with and without V-O agreement is semantically motivated and reflected in the syntax.

### *1.4.2. The argumental status of si*

Belletti's proposal relies heavily on the voice of ISCs. Alternative analyses have also been proposed, one of the most relevant of which is that put forward by Cinque (1988). Similarly to Belletti, Cinque (1988) considers the alternation in agreement patterns as the consequence of optionality associated with *si*: its argumental vs. non-argumental status. Cinque observes that the use of impersonal *si* in Italian is usually restricted to finite

clauses. However, *si* is allowed in certain untensed clauses, namely in Aux-to-Comp (see Rizzi 1982) and Raising structures with transitive and unergative verbs. (32) is an example of an Aux-to-Comp construction with a transitive verb, and (33) is an example of a Raising construction with a transitive verb.

(32) *Non essendosi ancora scopert il vero*
not being-si yet discovered-pp masc sg the true

*colpevole, ...*
culprit-masc sg
'One not having yet discovered the true culprit, ...'
[from Cinque (1995: 127:7a)]

(33) *Sembra non essersi ancora scoperto*
seems-3rd sg not being-si yet discovered-pp

*il vero colpevole*
the- masc sg true-masc sg culprit-masc sg
'It seems one not to have yet discovered the true culprit'
[from Cinque (1995:125:5a)]

Cinque's proposal is to consider these instances of *si* as argumental (+arg), as they can only appear together with verbs that project an external *θ*-role. In (32) and (33), *si* is an argument of the verb. The other *si*, which may appear with any verb class, i.e. also with verbs that do not assign an external *θ*-role, is a non-argumental one (-arg). (34) and (35) exemplify ISCs with unaccusative verbs and with passives respectively:

(34) *Spesso si arriva in ritardo*
often si arrives-3rd sg late
'Often one arrives late'

(35) *Spesso si è trattati male*
often si is-3rd sg treated-pp masc pl badly
'One is often ill-treated'
[from Cinque 1988:522]

(-arg) *si* is never licensed in untensed contexts, as the following examples, taken from Cinque (1995:127-128) show:

(36) **Non* *essendosi* *morti* *in giovane* *età, ...*
not being-si dead in young age
'One not having died young, ...' [unaccusative]

(37) **Non* *essendosi* *contenti* *del* *proprio* *lavoro, ...*
not being-si happy of-the one's work
'One not being happy with one's work, ...' [copulative]

For transitive verbs, Cinque proposes an elegant way to overcome optionality in $\theta$-role and Case absorption by maintaining that *si* may or may not be argumental. If *si* is argumental, it withdraws[14] the external $\theta$-role and blocks Accusative assignment, as in Belletti's analysis. If this happens, V-O agreement is obtained, because the object raises to subject position and receives Nominative case. If *si* is non-argumental, it cannot withdraw Case nor absorb any $\theta$-role. Therefore, Accusative Case is assigned to the object and the sentence is a normal transitive one. The role of *si* in this case is to mark the arbitrariness of the subject.

To be more specific, consider example (28) again, here repeated as (38):

(38) *In Italia si mangiano* *gli* *spaghetti*
in Italy si eat-3rd pl the-masc pl spaghetti-pl masc
'In Italy they eat spaghetti'

According to Cinque, *si* is (+arg) in this sentence. Its argumental status allows for it to withdraw the external $\theta$-role. As Burzio's generalization states, there is a one-to-one correspondence between Accusative Case and external $\theta$-role assignment. In particular, from the withdrawal of the external $\theta$-role it follows that the verb will not be able to assign Accusative Case to the object. The object will therefore be assigned Nominative by being in a chain with an empty category (*pro*) in subject position. Moreover, Cinque presents evidence that the other *si*, the one which does not cause V-O agreement, is in a non-argumental position. In (2), here repeated as (39), the (-arg) *si* does not absorb the external $\theta$-role, so that the verb will be able to assign Accusative unproblematically.

(39) *In Italia si mangia spaghetti*
in Italy si eats-3rd sg spaghetti-masc pl
'In Italy they eat spaghetti

Concerning (39), Cinque does not state explicitly where the external *θ*-role ends up. Supposedly, it is assigned to an empty *pro* in subject position licensed by *si*, which behaves like a kind of verbal agreement (cf. Rizzi 1982).

Cinque's approach has the advantage of getting rid of the optional property of absorbing the external *θ*-role attributed to impersonal *si*. He transfers this apparent optionality to a difference in the argumental structure of the two ISCs. On the other hand, Cinque's approach does not offer a clear explanation for the fact that a *by*-phrase may not be present in either of the two alternating ISCs, as shown in (31). Moreover, the question regarding what causes the agreement alternations in transitive ISCs remains open. Why, in other words, is *si* sometimes argumental and sometimes non-argumental in transitive ISCs? If we go back to consider sentences (1) and (2), we see that the verb is the same in both sentences. We have seen that, according to Belletti, there is one passive-like ISC and one active one. We have also seen that this claim does not really hold. Intuitively, one can sense that there is some kind of difference in the semantics of the two clauses. This semantic difference does not correlate, however, with the voice of the two sentences, nor does it correlate with the argumental/non-argumental status of *si*. As will be shown in the remainder of this chapter, the two sentences simply convey different inner aspectual information, i.e. they convey different *Aktionsarten*.

Before turning to consider the inner aspectual specification of the two transitive ISCs, it is worth considering another very relevant contribution to the analysis of ISCs: That of Dobrovie-Sorin (1998, 1999). Dobrovie-Sorin points out that it is not necessary to postulate a difference in the the argumental status of impersonal *si*. What Cinque calls a (+arg) *si* is actually a passive *si*, which cannot be marked with Nominative. The other *si*, that Cinque calls (-arg), is instead Nominative. On the basis of Rumanian, Dobrovie-Sorin argues that *si* is an Accusative clitic in constructions with V-O agreement. Constructions like *se doarme* ('si sleeps'), with unergative verbs, are only apparently the counterpart of Italian '*si dorme*'. In Italian, these constructions contain a Nominative *si*, which is absent in Rumanian. In Rumanian, these constructions instead involve a middle-passive *si*. Dobrovie-Sorin argues that *si* is not licensed in

Italian non-finite clauses simply because it is a Nominative clitic and Nominative clitics are not allowed in Italian non-finite clauses. Transitive and unergative Aux-to-Comp and Raising structures license the presence of *si* simply because *si* in these structures is not Nominative but Accusative. In other words, the *si* that is licensed in some non-finite structures (such as 32 and 33) is a middle-passive *si*, and not a Nominative one.

Dobrovie-Sorin's analysis has several advantages, since it can be extended to other Romance languages, such as Rumanian, which does not have Nominative clitics but has *se* constructions. This analysis, however, does not solve the problem of the agreement/no agreement alternation because it is mainly constructed on the basis of Rumanian data. Standard Rumanian lacks ISCs without V-O agreement, and therefore Dobrovie-Sorin only concentrates on one of the two patterns. According to some native speakers of Standard Rumanian, a vernacular variety of Rumanian spoken in the surroundings of Bucarest has an ISC without V-O agreement, exemplified in (40):

(40) *Se face* *pantofi*
si makes-3rd sg shoes-pl masc
'One makes shoes'

However, we have not been able to find any speaker of this variety in order to check whether the generalizations proposed for Italian also hold in this variety. We therefore leave this issue open for further research.

The considerations that led Cinque and Dobrovie-Sorin to discuss the argumental status of *si* were mainly related to the Projection Principle and to the division between D-structure and S-structure. In a model that does not make use of these levels of representation, most of their arguments necessarily disappear. In minimalist terms one wonders why if there is a $\theta$-role available for a DP and if there is exactly one DP available, namely *si*, one should merge *si* in a non-$\theta$ position, and merge an expletive in subject position, and finally let the chain formed by the two items absorb the external $\theta$-role. Furthermore, one should avoid postulating restrictions *apriori* on the merge site of *si*. We will see that the merge site of *si* is simply determined by the inner aspectual specification of the VP it appears in.

For further discussion on the issue of argumentality and merge sites of *si*, see also Raposo & Uriagereka (1990), McGinnis (1997, 1999), Embick (2000), Folli (2001), and Manzini & Savoia (2001) among others.

The analyses just outlined are important starting points for the analysis that we are going to present. Specifically, following Belletti we can assume that *si* receives Nominative in the ISC without V-O agreement. In addition, we can argue in the spirit of Cinque that different syntactico-semantic configurations give rise to different agreement patterns. While standing on the shoulders of giants, though, we wish to depart from the traditional view which contemplates fixed positions for specific lexical items, and turn in the direction of imposing as few restrictions on merge sites as possible, in conformity with the general minimalist requirements of having minimal stipulatory assumptions. This analysis is aimed at eliminating all the extra assumptions that have been necessary in previous analyses, such as the optional capability of *si* of absorbing the external *θ*-role.

In the next two sections, an analysis is outlined that has the advantage of limiting the extra assumptions regarding the peculiar characteristics of *si*, and consequently avoiding having to consider it as a 'special' lexical item, exhibiting properties that no other DP has, such as the ability of withdrawing a *θ*-role or of absorbing Case.[15]

To recapitulate: the problems that arise from a first look at ISCs are the following:

- What exactly is responsible for the alternation between ISCs with V-O agreement and ISCs without V-O agreement?
- Why is a *by*-phrase not admitted in either of the two ISC constructions?
- How can we justify the Accusative marking on *se* in Rumanian?

Additionally, another question that has never previously been addressed arises:

- Why is it that the construction without V-O agreement is much less common than the one with V-O agreement?

In the next section, the V-O /non V-O alternation is examined in the light of Vendler's event theory. This approach leads us to the discovery of some previously unnoticed semantic differences between the two constructions under investigation. It is argued that the different agreement patterns reflect these semantic differences.

## 2. Transitive ISCs

In the previous sections, it was noted that not many attempts have been made to explain the agreement alternations between (38) and (39). In this section, a novel observation is brought to light: (38) encodes an accomplishment, and (39) an activity, according to the classification proposed by Vendler (1967). In general, the hypothesis will be explored that V-O agreement ISCs are accomplishments, while ISCs without V-O agreement are activities. This in turn suggests that ISCs with V-O agreement have an extra head that encodes telicity, which is missing in constructions without V-O agreement. This extra projection offers an available merge site for *si*, which intervenes for Accusative assignment.

To show that (38) is an accomplishment and (39) an activity, first a short summary of Vendler's classification (section 2.1.) is presented. Thereafter, some diagnostics proposed by Dowty (1979) are introduced, in order to identify the class to which a verb belongs. In 2.3., the problem of the definiteness of the object is addressed. Next, in 2.4., crosslinguistic evidence for the proposed generalization is presented. The syntactic framework that will be used for our analysis will be presented in section 3.

### 2.1. Vendler's aspectual classes

In (1967), Zeno Vendler identified four distinct categories (aspectual classes) of verbs, based on the restrictions they impose on the selection of time adverbials, tenses, and on the logical entailments they create. Vendler's categories are known as the verb *Aktionsart*. Vendler distinguished between *states*, (41), *activities* (42), *accomplishments* (43), and *achievements* (44) [from Dowty (1979)]:

(41) *states*: know, believe, have, desire, love, ...

(42) *activities*: run, walk, swim, push a cart, drive a car, ...

(43) *accomplishments*: paint a picture, make a chair, deliver a sermon, draw a circle, push a cart, recover from illness, ...

(44) *achievements*: recognize, spot, find, lose, reach, die, ...

States feature no internal structure or change during the time span over which they are true; activities are events with internal change and duration, but no necessary temporal endpoint; accomplishments are events with duration and an obligatory temporal endpoint; achievements have no duration and instantaneous endpoint (cf. Pustejovsky 1988, Tenny & Pustejovsky 2000). Vendler observed that states and achievements have in common the lack of duration (and consequently the lack of progressive tense in their conjugation), while accomplishments and activities both encode duration in their meaning. On the other hand, activities and states lack telicity, i.e. a result state, as opposed to both accomplishments and achievements. Under the view that verbs may be classified according to their *Aktionsart*, Dowty (1979) proposed a set of tests which help us identify which aspectual class a verb belongs to. Some of Dowty's tests are, however, not relevant here or do not apply to Italian. For example, agreement patterns are not visible in infinitival clauses, and therefore those tests that make use of untensed clauses to draw the distinction between accomplishments and activities are of no help to us. We therefore confine ourselves to mainly considering the tests where the agreement distinctions are visible.

## 2.2. Dowty's tests and ISCs

The main tests collected by Dowty in order to categorize verbs into accomplishments and activities are summarized in this section. These tests will be then applied to (1) and (2).

### *2.2.1. Dowty's tests for accomplishments and activities*

In 1979, Dowty proposed a large number of tests with the aim of classifying verbs into Vendler's aspectual classes. We repeat here the tests that are relevant for the present analysis:

#### 2.2.2.1. *For an hour/in an hour*

The first test that we may use to draw the difference between (1) and (2) is the so-called *in an hour/for an hour* test, quoted in (45):

(45) 'Whereas accomplishment verbs take adverbial prepositional phrases with *in* but only very marginally take adverbials with *for*, activity verbs allow only for *for*-phrases [from Dowty (1979:6)].

According to Dowty, *in*-adverbials, like *in an hour*, are licensed by accomplishment verbs but not by activity verbs. *For*-adverbs, like *for an hour*, show the opposite behavior.

If one inserts the adverbial phrases *in un'ora* ('in an hour') and *per un'ora* ('for an hour') in the sentences (1) and (2), the first distinction between these two sentences emerges. Note, incidentally, that the sentences in (1) and (2) have been turned into the past tense in order to make them compatible with such adverbial phrases.

| (46) | *Si sono* | *mangiati* | *gli* | *spaghetti* |
|---|---|---|---|---|
| | si are-3rd pl | eaten-pp masc pl | the-masc pl | spaghetti-masc pl |

*in un'ora*
in an hour
'The spaghetti has been eaten in an hour'

| (47) | ? *Si sono* | *mangiati* | *gli* | *spaghetti* |
|---|---|---|---|---|
| | si are-3rd pl | eaten-pp fem pl | the-masc pl | spaghetti-masc pl |

*per un'ora*
for an hour
'Spaghetti has been eaten for an hour'

| (48) | *Si è* | *mangiato* | *spaghetti* | *per un'ora* |
|---|---|---|---|---|
| | si is-3rd sg | eaten-masc sg | spaghetti-masc pl | for an hour |

≈'There has been spaghetti-eating going on for an hour'

| (49) | **Si è* | *mangiato* | *spaghetti* | *in un'ora* |
|---|---|---|---|---|
| | si is-3rd sg | eaten-masc sg | spaghetti-masc pl | in an hour |

(46)-(48) indicate that ISCs with V-O agreement are accomplishments, whereas ISCs without V-O agreement are activities. However, the verb contained in these sentences, *eat*, is a consumption verb, and therefore it might exhibit a slightly different behavior than other transitive verbs, due to the fact that with consumption verbs a definite object entails telicity (see

Krifka (1991, 1992, 1998) and Ramchand (2006)). Therefore, we need to apply Dowty's test to other classes of transitive verbs, to make sure that we are not drawing a generalization on one specific verb class only. Let us go back to the transitive ISCs listed at the beginning of this chapter:

(50) *Qui si fabbricano (le) case*
here si build-3rd pl the-fem pl houses-fem pl
'Houses are built here'

(51) *Qui si fabbrica (le) case*
here si build-3rd sg the-fem pl houses-fem pl
≈ 'All they do here is build houses'

(52) *In biblioteca si leggono i libri*
in library si read-3rd pl the-masc pl books
'In a library one reads books'

(53) *In biblioteca si legge (i) libri*
in library si reads-3rd sg the-masc pl books
≈'What one does in a library is read books'

If we apply the *in an hour/for an hour* test to these sentences, we obtain the following:

(54) *Qui si sono fabbricate delle case*
here si are-pl built-fem pl of-the-fem pl houses-fem pl

*in un mese*
in one month
'Here some houses have been built in a month'

(55) ?*Qui si sono fabbricate delle case*
here si are-pl built-fem pl of-the-fem pl houses-fem pl

*per un mese*
in one month
≈'Here some houses have been under construction for a month'

(56) *Qui si è fabbricato case per un mese*
here si is built-masc sg houses-fem pl for one month
≈ 'Here there were houses being built for a month'

(57) ???*Qui si è fabbricato case in un mese*
here si is built-masc sg houses-fem pl in one month
≈ 'Here building houses used to take one month'/ 'Here houses were built in one month'

Also with *building*, ISCs without V-O agreement seem to feature with activities, whereas ISCs with V-O agreement feature with accomplishments. Let us now turn to consider the third group of sentences, in (52) and (53):

(58) *In biblioteca si sono letti*
in library si are-3rd pl read-pp pl

*i libri in un'ora*
the-masc pl books-masc pl in an hour
'In the library we/they have read the books in an hour'

(59) *In biblioteca si sono letti*
in library si are-3rd pl read-pp pl

*i libri per un'ora*
the-masc pl books-masc pl for an hour
'In the library we/some people have read the books for an hour'

(60) *In biblioteca si è letto*
in library si is-3rd sg read-pp masc sg

*(i) libri per un'ora*
the-masc pl books-masc pl for an hour
'In the library we/they have read books for an hour'

(61) ???*In biblioteca si è letto*
in library si is-3rd sg read-pp masc sg

| *(i)* | *libri* | *in un'ora* |
|---|---|---|
| the-masc pl | books-masc pl | in an hour |

≈'It used to be the case that reading books in the library took an hour'

From the examples above we can see that ISCs with V-O agreement license the adverbial *in an hour/in a month* and only marginally license *for an hour/for a month*. The ISCs without V-O agreement accept the adverbial *for an hour* quite freely, whereas they either do not accept the *in an hour/in a month* or they accept it with a very peculiar meaning. It is worth underlining that (57) and (61) are not acceptable with a neutral declarative intonation.

According to the *in an hour/for an hour* test, ISCs with V-O agreement express accomplishments, while ISCs without V-O agreement express activities.

### 2.2.1.2. *Spend an hour V-ing*

According to Dowty (1979):

(62) Almost parallel to the *for an hour* sentences and the *in an hour* sentences are the forms *spent an hour V-ing* and *it took s.one an hour to V* [from Dowty (1979:56)].

This test is hard to apply to our examples, as the same verb is involved in both sentences. The difference between the two constructions, moreover, is greatly reduced with the introduction of the infinitive, which makes it impossible to detect agreement. In addition, as shown by Burzio (1986) and Cinque (1988), *si* is only licensed in a very limited number of untensed contexts.

The contrast between (63) and (64) shows that the difference between (1) and (2) holds for their PRO counterpart, and seems to suggest that we are dealing with an alternation between accomplishments and activities which is independent of *si*.

| (63) *Ci* | *è* | *voluta* | *un'ora* | *per mangiare* |
|---|---|---|---|---|
| for-that | is-3rd sg | needed-pp fem sg | an hour | for eat-inf |

*gli* *spaghetti*
the-masc pl spaghetti-masc pl
'It took (someone/us) an hour to eat spaghetti'

(64) *#Ci è voluta un'ora per*
for-that is-3rd sg needed-pp fem sg an hour for

*mangiare (gli) spaghetti*
eat-inf the spaghetti-masc pl
'It took (someone) an hour to eat spaghetti'

(63) is acceptable because it is an accomplishment. (64) is instead rather odd because it is an activity, as expected. However, this test does not tell us much about ISCs, since *si* is no present. If we wish to force the use of *si*, we should have a sentence like (65), which is however not semantically equivalent to (63):

(65) *Ci è voluta un'ora perché si*
for-that is needed-pp fem sg an hour so-that si

*mangiassero gli spaghetti*
eat-3rd pl subj the spaghetti
'It took them an hour to decide to eat spaghetti'.

We can therefore conclude that this test is not very telling regarding the status of our transitive ISCs. However, this test proves that Dowty's distinction between accomplishments and activities also holds for Italian in general.

2.2.1.3. *Finish*

Another test that Dowty proposes to distinguish between accomplishments and activities is (66):

(66) Only accomplishment verbs can normally occur as complement of *finish* [from Dowty (1979:57)].

(66) states that if a verb may occur as a complement of the verb *finish*, this verb is an accomplishment. Accomplishments, in fact, are inherently telic,

i.e. they have an endpoint. *Finish* refers directly to this endpoint. If we apply this diagnostic to our sentences in (1) and (2), we obtain (132) and (133):

| | | | | |
|---|---|---|---|---|
| (67) | *Si sono* | *finiti* | *di mangiare* | *gli* |
| | si are-3rd pl | finished-pp pl | of eat | the |

*spaghetti*
spaghetti-masc pl
'They/we have finished eating spaghetti'

| | | | | |
|---|---|---|---|---|
| (68) | **Si è* | *finito* | *di mangiare* | *spaghetti* |
| | si is -3rd sg | finished-pp sg | of eat | spaghetti |

The grammatical/acceptable alternative for (68) is (69). *Smettere* ('give up') is a verb which usually selects an activity. Some examples are *smettere di fumare* ('quit smoking'), and *smettere di studiare* ('quit studying').

| | | | | |
|---|---|---|---|---|
| (69) | *Si è* | *smesso* | *di mangiare* | *spaghetti* |
| | si is -3rd sg | stopped-pp sg | of eat | spaghetti |

'They have stopped eating spaghetti'

Essentially the same holds for the other sentences.
The *finish* test also indicates that ISCs with V-O agreement are accomplishments and ISCs without V-O agreement are activities.

2.2.1.4. *Almost*

The fourth test that we will consider here is the *almost* test: according to Dowty (1979), the adverb *almost* has different effects on activities and accomplishments: '*almost*-activity' entails that the event described by the verb did not take place; '*almost*-accomplishment' has two meanings:

- The Agent had the intention of performing the activity but he did not do it.

- The Agent began to perform the activity but did not complete it.

If one inserts the adverb *quasi* ('almost') in ISCs with and without verb-object agreement, the following pattern emerges: ISCs with verb-object agreement have two entailments, while ISCs without verb-object agreement only have one. This is exemplified in (70) and (72) respectively:

| | | | | |
|---|---|---|---|---|
| (70) | *Si sono* | *quasi* | *mangiati* | *gli* |
| | si are-3rd pl | almost | eaten-pp masc pl | the-masc pl |

*spaghetti*
spaghetti-masc pl
'Spaghetti has almost been eaten (up)'

(70) may have two entailments:

- The spaghetti has almost been eaten up.
- Someone has almost started eating spaghetti.

The former possibility is not so straightforward. The double entailment is more striking with a different word order:

| | | | | |
|---|---|---|---|---|
| (71) | *Gli* | *spaghetti* | *si sono* | *quasi* |
| | the-masc pl | spaghetti-masc pl | si are-3rd pl | almost |

*mangiati*
eaten-pp masc pl
'Spaghetti has almost been eaten (up)'

In (71) the double entailment is more straightforward. (72), on the other hand, only means that people almost started to eat spaghetti, but they never did:

| | | | | |
|---|---|---|---|---|
| (72) | *Si è* | *quasi* | *mangiato* | *(gli)* |
| | si is-3rd sg | almost | eaten-pp masc sing | the-masc pl |

*spaghetti*
spaghetti-masc pl
'Someone/we have almost started eating spaghetti'

These entailment relations exactly reflect what Dowty showed to be the discriminating factor between accomplishments (two entailments) and activities (one entailment). These entailments also hold, as far as we can tell, for the other sentence sets (cf. the difference between *Si sono quasi costruite delle case* ('some houses have almost been built (up)') as opposed to *si è quasi costruito delle case* ('we were about to start building some houses'), and between *si sono quasi letti dei libri* ('some books have almost been (completely) read') as opposed to *si è quasi letto dei libri* ('someone/we were about to start reading some books')).

As expected, the V-O agreement construction gives a positive result for the accomplishment test, while no V-O agreement construction is identified as an activity. The result of these tests clearly shows that ISCs with and without V-O agreement are not instances of a passive and an active respectively: they are, instead, instances of one and the same lexical item, which is merged in structures that differ with respect to their sub-event specification.

## 2.3. Presence *vs* absence of a definite article

Throughout the chapter, the issue has arisen of whether the presence/absence of a definite article (or, to adopt Ramchand's (2006) terminology, the presence/absence of a 'quantized object') in ISCs with and without V-O agreement is responsible for the classification of the *Aktionsart* of the VP. The question we wish to address here is thus whether the presence of the determiner in (1) determines the accomplishment reading of the sentence. According to Zagona (1996) and de Miguel (1992), in fact, the aspectual properties of the verb select the definiteness of the object (i.e. determine the use or the non-use of the definite article in Italian). This proposal can immediately be rejected in the case of ISCs, since we are dealing with exactly the same verb for each pair of sentences. If the verb selected 'the right' determiner, we would not expect to see an option between objects with and without a determiner.

On the other hand, Nishida (1994), following Krifka (1991), proposes that the properties of the object determine the properties of the predicate. In particular, he proposes that an object may contribute to the telicity of the predicate if the object satisfies a condition of 'gradedness'. In that case, the object may establish a homomorph relation with the event. In the case of a gradable object, a one-to-one correspondence is established between each

subpart of the object and each subpart of the event, and in this way the boundedness of the object is transferred to the event. Since the definite article specifies the object as 'finite', and as such decomposable, the definite article creates the conditions for the homomorphism to apply between the event and the object, and therefore for the event to become telic. This would mean, in our case, that ISCs with V-O agreement would look like accomplishments only because a determiner is present.

However, it is not the case that the presence of the definite article determines the telicity of the event. This can in fact be shown both from an empirical and from a theoretical point of view. Empirically, we have seen that the determiner in ISCs without V-O agreement is optional. In other words, the presence of a determiner in (2), (4), and (6) does not determine an accomplishment reading for this sentence. Moreover, the determiner can also be dropped in ISCs with V-O agreement, as in (3) and (5) for instance. In (1), however, the determiner cannot be readily dropped, due to the fact that *mangiare* ('eat'), is a consumption verb, and as such has properties that are slightly different from those of other transitive verbs. As Krifka himself shows, in fact, the one-to-one mapping between object and event is satisfied only for the class of consumption verbs. This means that we expect there to be an entailment relation between the definiteness of the object and the telicity of the event in (1), since (1) involves a consumption verb. This entailment is however not expected to hold in any other class of verbs. The fact that the determiner can be present in (2) without it becoming an accomplishment suggests that the entailment may not hold even within the class of consumption verbs.

We can conclude that the claim that definite direct objects 'create' telicity is empirically wrong.

This claim can also be proven to be incorrect from a theoretical point of view. We will follow here the argumentation proposed by Ramchand (2006), who shows in detail that the transfer of 'boundedness' from the object to the event is theoretically unfounded. Ramchand maintains that the extent to which telicity can be determined by the object depends on the kind of transition the object undergoes: if the transition relates to 'the object's material extent', as in consumption verbs for instance, then the definiteness of the object will determine the event telicity. If the transition is instead relative to the object's change of location, or change of state, then only the specification of the object's final location or final state respectively will introduce telicity. Moreover, the unboundedness/atelicity

of an event may emerge from iteration of the event itself, independent of the definiteness of the object undergoing the action expressed by the event.

We can therefore conclude that the presence/absence of a determiner does not affect the *Aktionsart* of the event, and that ISCs with V-O agreement are genuine accomplishments, whereas ISCs without V-O agreement are genuine activities.

At this point, we may also address the question of why the agreement-less patterns are less common than the V-O agreement patterns. The reason for this is attributable to a more general property of verb classes: transitive accomplishments are usually more frequent than transitive activities (Kempchinsky 2000). The frequency of occurrence is thus probably not related to the ISC constructions themselves, but rather reflects a general trend of verb classes.

## 2.4. Crosslinguistic evidence: Spanish and Rumanian ISCs

In the preceding sections, we have offered evidence for the claim that Italian ISCs with V-O agreement are accomplishments while Italian ISCs without V-O agreement are activities. As we have seen, other Romance languages like Spanish and Rumanian also have ISCs.

Rumanian has a transitive ISC construction with V-O agreement that is very similar to that found in Italian. The transitive ISC without V-O agreement, on the other hand, does not exist in Standard Rumanian, and therefore our accomplishment/activity tests cannot be applied to this language. Rumanian transitive ISCs only have the agreement pattern illustrated in (73):

(73) *Se* *fac* *pantofi* *aici*
si make-3rd pl shoes here
'Shoes are made here'

An ISC without V-O agreement does however exist in the vernacular Rumanian spoken in the south, around Bucharest (Manola Iliescu and Rodica Zafiu, p.c.):

(74) *Se face* *pantofi* *aici*
si makes-3rd sg shoes here
'Shoes are made here'

However, in this dialect the 3rd person singular and plural forms of the verb are coincident, and therefore the ISC in (74) might well be an ISC with V-O agreement. We can conclude that Rumanian is not a good testing-ground for our generalization about agreement alternation, as it does not have an ISC without V-O agreement.

In peninsular Spanish, ISCs with verb-object agreement are rarely used. According to speakers of peninsular Spanish, ISCs without V-O agreement are quite marginal and possibly ungrammatical. However, in Latin American Spanish ISCs without V-O agreement are very much in use. The agreement alternation that we saw in (1) and (2) for Italian ISCs is mirrored in the Spanish sentences in (75) and (76):

(75) *En esta ciudad se venden (unas) casas*
in this city se sell-3rd pl some houses-pl
'In this city (some) houses are on sale'

(76) *En esta ciudad se vende casas*
in this city se sells-3rd sf houses-pl
'In this city houses are on sale'

If the observation we drew for Italian ISCs is correct, we predict that Spanish ISCs should also reflect the behavior observed in Italian. In fact, (75) and (76) respond to the *in an hour-for an hour* test just like their Italian counterparts:

(77) *En esta ciudad se venden casas en un mes*
in this city se sell-3rd pl houses-fem pl in one month
'In this city (some) houses are sold in one month'

(78) **En esta ciudad se vende casas en un mes*
in this city se sell-3rd pl houses-fem pl in one month

(79) *En esta ciudad se venden casas constantemente*
in this city se sell-3rd pl houses-fem pl all-the-time
'In this city houses are sold all the time'

(80) *En esta ciudad se vende* *casas* *constantemente*
in this city se sell-3rd pl houses-fem pl all-the-time
'In this city houses are on sale all the time'

Spanish ISCs with V-O agreement license *in an hour* adverbials, as in (77), while they marginally license *for-an-hour* adverbials (=duration adverbials, like *constantemente*), as in (79). ISCs without V-O agreement, on the other hand, do not license *in-an-hour* adverbials, as in (78), while they sound perfectly natural with *for an hour* adverbials, like in (80).

Further evidence that Spanish ISCs behave like those in Italian is offered by the data presented in Zagona (1996). These data will be addressed in section 3.2, where the *ci si* disambiguation is presented.

We can conclude that Spanish ISCs behave like Italian ISCs with respect to their *Aktionsart* classification, and that therefore they offer strong evidence for the generalization about Italian transitive ISCs.

## 3. Translating *Aktionsart* into syntax: inner aspect

From the data that have been presented so far, it is clear that the construction without V-O agreement is not idiosyncratically derived from that with V-O agreement. Instead, it has an independent status, and is less frequently used only because transitive activities are less frequent than transitive accomplishments in general.

One of the most interesting questions to which linguists have tried to provide an answer in recent decades is whether semantic properties determine the syntactic configuration of a sentence or whether it is the other way around, with syntax determining semantics. The former approach is taken by the so-called *lexicalists*: according to them, a verb is listed in the lexicon with its valence, and therefore the syntactic structure of a sentence is directly dependent on the lexical properties of the verb entry (see Chomsky 1981, Perlmutter & Postal 1984, Baker 1988, Levin & Rappaport Hovav 1995, Reinhart 2000 among others). The latter approach is instead proposed by Borer (1994, 1998), Travis (1994, 2000), Kratzer (1996), van Hout (1996), Marantz (1997), Ramchand (1997, 2006), Ritter & Rosen (1998), Harley & Noyer (2000) among others: it is not the lexical semantics of a verb that determines its syntax, but rather the functional-aspectual structure in which the verb appears that determines its semantics. In other words, it is the syntactic structure in which lexical items appear

that determines the semantics of a sentence. According to this approach, if a verb alternates between an activity and an accomplishment reading, the different interpretations result from the different syntactic structures in which the verb is able to appear. What varies between structures is the number and the nature of functional projections. Consequently, the merge site of arguments varies, leading to different interpretations of the verb. In the majority of the works cited above, such functional projections are defined as 'inner aspectual' projections. We therefore adopt the term 'inner aspect' to refer to the *Aktionsart* encoded by such functional heads. The syntactic role of such additional functional projections is not straightforward. According to most syntactic analyses, such projections are related to Case checking and contribute to the specification of the *Aktionsart* of the verb (cf. Borer 1994, Slabakova 1997, and Travis 1994, 2000).

Schmitt (1996), Zagona (1999) and Kempchinsky (2000), on the other hand, consider inner aspectual projections as the locus of pure aspectual interpretation. This view contrasts with Chomsky's (1995) bare output conditions: only formal (i.e. uninterpretable) syntactic features can drive syntax, while semantic (i.e. interpretable) features cannot. Schmitt (1996) and Zagona (2000), however, propose that such inner aspectual projections (which, in minimalist terms, would bear uninterpretable features) are necessary to license aspectual 'calculation'. In addition to that, these inner aspectual projections are the locus where arguments are linked to (sub) events. In our terms, these inner functional projections are the locus of first merge of arguments, which are therefore linked to the event in the usual way. We can interpret these inner functional projections as a refinement of the *v*P shell. In the 'traditional' *v*P shell, arguments are linked to the verb at first merge, by being merged with the V or with *v*. If the event denoted by the verbal shell structure is complex, however, the *v*P needs to be decomposed into several different functional projections. The arguments of the verb may therefore First Merge with these inner projections and be linked to subcomponents of the event in this way.

Another relevant proposal for the encoding of *Aktionsart* in the syntax is put forward by Ramchand (2006). In her 'first-phase' syntactic model, Ramchand does not subscribe to a constructionalist view, like those proposed by Marantz (1997) and Borer (2005a,b) for instance, according to which the lexical information is contained in the bottom, or the root of the syntactic tree, while the functional information is encoded in the higher functional projections. First, Ramchand follows a minimalist line of

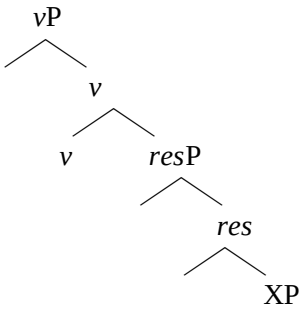
reasoning, according to which there is no distinction between a terminal node and the lexical item that it dominates, but the lexical item is itself a node. Then, each lexical item, which will constitute a node of the structure, carries both semantic (i.e. interpretable) and syntactic (i.e. uninterpretable) features. This means that each inner aspectual projection provides both lexical and syntactic information, and there is no clear division between the two as in the constructionist model. Moreover, lexical items do not obey selectional rules of any type, but they simply Merge with one other. Merge in the wrong order results in uninterpretability at the interface. To obtain the right order, lexical items simply carry a categorial label ('tag') which associates them with specific syntactic heads. A lexical item can carry more than one tag, and therefore can be merged more than once (Remerge), creating head movement effects.

According to Ramchand's model, any 'Verb' is decomposed into three projections: an *init*P ('initiator'P), a *proc*P ('process'P), and a *res*P ('result state' P), where *init*P introduces the external argument, the *proc*P represents the dynamic process of the event, and *res*P introduces the result state. Each of the three heads encodes both lexical and syntactic information. The *proc*P is always present and characterizes any event, whereas the *init*P and the *res*P are present only when the relevant elements are represented in the event (i.e. when the event has a causer for *init*P and when it has a result state for *res*P). Ramchand also underlines that using the label VP for one of these projections would lead to a misunderstanding, as the three projections together redefine what is traditionally considered to be a verb with its *v*P.

We will mainly follow Ramchand's model here. However, we will slightly simplify this model by collapsing *init*P and *proc*P into a unique *v*P. This simplification will not cause any problems here since we will only be dealing with transitive ISCs and therefore with transitive verbs which always have an initiator and a process in Ramchand's terms.

The structure we will adopt is hence the following:

(81)




The *v*P is the merge site of the external argument. The event expressed by the verb in *v* thus both has an initiator and is a process. The syntactic features on *v* are uninterpretable, i.e. unvalued, and need to be valued via Agree. *Res*P is a resultative head, which expresses the telicity of the event. This means that the verb is first merged as the head of *res*P when the event is telic.

In the remainder of this chapter, it will be shown how impersonal *si* interacts with the *v*P projection, and how the agreement patterns of transitive ISCs depend directly on both the inner aspectual structure of the *v*P and the position of *si* within it.

### *3.1.1. Transitive accomplishments and transitive activities*

In the section above we argued for a model of syntactic structure which also encodes inner-aspectual information. We proposed the structure in (81) for transitive verbs. Both ISCs with and without V-O agreement are transitive, and therefore may be encoded in that structure. In this chapter we are mainly concerned with accomplishments (ISCs with V-O agreement) and activities (ISCs without V-O agreement). The difference between these two classes is the presence/absence of telicity, as we have seen throughout. Specifically, accomplishments are telic while activities are not. We can therefore translate this generalization into our structure by saying that activities lack the *res*P.

The proposal we wish to put forward now is the following:

(82) *Si* is merged in the specifier of *res*P when the latter is present

This generalization is supported by two sets of arguments: theoretical and empirical. They will be both addressed in the section that follows.

In this section we have proposed a model of the syntactic structure of events. Following Ramchand (2006), we have proposed that an inner aspectual head encoding telicity is present in telic events, such as accomplishments. We have also proposed that impersonal *si* is merged in this telicity projection when it is present.

### 3.2. Impersonal and aspectual *si* in the specifier of E: *ci si*

In the previous section, it has been proposed that *si* is merged into a projection that encodes telicity. This proposal raises many questions, both on the nature of *si* and on its relation with the other lexical items in the clause.

In the introduction, we stated that impersonal *si* is a pronoun. Italian pronouns are generally conceived as being DPs, carrying no other semantic information than person, number and gender. However, we have also proposed that *si* is sometimes merged in a projection that encodes telicity. Does this mean that *si* is a 'telicity' element itself? In other words, do we wish to maintain that *si* creates telicity? The answer to these questions is no. We do not wish to consider *si* as the 'creator' of telicity or like the indicator that the sentence is telic. Impersonal *si* is an argument of the verb, which accidentally merges in a telic projection when the telicity head is present. We will see how this merge takes place in the next section.

It is worth remembering that Manzini & Savoia (2002) among others propose that *si* is an object clitic, because of its distributional properties. According to Manzini & Savoia, *si* is alternatively able to encode the Origin and the Measure of an event (see chapter 1). This intuition is captured by the model that will be proposed by saying that *si* is sometimes merged in an 'object related' position, i.e. in a position which encodes the telicity sub-component of the event. We have seen that a definite object can bring about telicity, in the case of consumption verbs for instance, or in the case in which the object expresses the final state when a change of state verb is involved. This means that in some cases there is a strict correlation between the object and the telicity of the event, and therefore Manzini & Savoia's intuition on the position of *si* is captured by merging *si* in a telicity projection.

As shown in the previous section, V-O agreement constructions are accomplishments. Assuming that telicity and duration (process) are isolatable features encoded in specific functional heads, we may follow the approach according to which *Aktionsart* is syntactically represented in terms of functional projections that encode event sub-components. In particular, we may maintain that ISCs with V-O agreement have the VP structure proposed in (81). Impersonal *si* is merged in the specifier of the *res* (telicity) projection. Something similar has been proposed by Zagona (1996) for Spanish aspectual *se*, exemplified in (83):

(83) *El niño se comió las manzanas*
the child se ate the apples
'The child ate (up) the apples'

Observe that (83) is not an ISC. (83) in fact exhibits an overt subject, *el niño*, and *se* provides the 'applicative' reading of the sentence. In this kind of sentences, *si* expresses the coincidence of the agent and the benefactive. These sentences are therefore of the kind of the so-called 'John Wayne sentences' in English, like 'I make me a hamburger', and should not to be confused with ISCs.

Zagona assumes that the *se* found in these sentences, i.e. aspectual *se*, is a verbal operator. It expresses a subject/object relation at the culmination of the event (for a similar view, see also Kempchinsky 2004). *Se* is only licensed when the event is telic, and hence complete (in Zagona's terms, it has a culmination). Zagona does not commit herself as to the merging site of *se*: she just assumes that at some point it cliticizes on the verb. Since aspectual *se* expresses telicity, we may as well assume that it is merged in the telicity projection, *res*P. This means that both aspectual and impersonal *se* (= *si*) are merged in the *res*P.

Zagona's analysis of aspectual *se* offers support to the hypothesis that impersonal *si* is merged in the telicity projection. Moreover, if we still need it, it provides us with further support in favor of the hypothesis that ISCs with V-O agreement are accomplishments and ISCs without V-O agreement are activities. According to Zagona, in fact, accomplishments but not activities may license an aspectual *si-se*. If the hypothesis that we are exploring about ISCs holds, the ISCs without V-O agreement should not allow for an aspectual *se*, while ISCs with V-O agreement should. We can easily test whether this is true since Italian also has an aspectual *si*; the sentence in (83) has the Italian equivalent in (84):

(84) *Il bambino si è mangiato le mele*
the child si is eaten the apples
'The child ate (up) the apples'

If we merge an impersonal *si* in a sentence like (84), we have the following:

(85) ?*Ci si sono mangiate*
si-asp si-imp are-3rd pl eaten-pp fem pl

*le mele*[16,17]
the-fem pl apples-fem pl
'We/somebody ate up the apples'

(85) shows that ISCs with V-O agreement license aspectual *si*, as expected. ISCs without V-O agreement, on the other hand, do not:

(86) **Ci si è mangiato*
si-asp si-imp is-3rd sg eaten-pp masc sg

*(le) mele*
the-fem pl apples-fem pl

(86) does not license an aspectual *si*. This shows once again that (86) (an ISC without V-O agreement) is an instantiation of an activity.

Consider now the sentence in (85), where impersonal *si* is merged in a sentence which contains an aspectual *si*. Interestingly, the two *si*s cannot both be spelled out, but one of the two needs to be transformed into *ci*. (85) is an instance of the so-called *ci-si* disambiguation (cf Serianni 1991, Cinque 1995 among others).

The question is now where the aspectual and the impersonal *si* are merged in (85). As we stated above, building on Zagona we may propose that aspectual *si* is also merged in the *res* projection in ISCs with V-O agreement. That is, impersonal *si* and aspectual *si* are merged within the same projection. This might also help us solve the problem of *ci-si* disambiguation. Before going into the proposal, it is worth recalling that impersonal *si* bears both valued and unvalued features, and is therefore half way between a functional and a lexical item.

*Ci-si* disambiguation has been explained in different ways: According to Burzio (1986), it occurs for phonological reasons. When two *si*s are adjacent, a phonological rule applies which changes one *si* into a *ci*. There are at least two problems with this proposal: firstly, this change affects the first of two elements, which is unexpected if a purely phonological rule applies. Secondly, the *ci-si* disambiguation also takes place when the two *si*s are not adjacent, as shown in (87):

(87) *Ce* *li* *si* *è* *scambiati*
si-asp them-3rd pl si-imp is-3rd sg exchanged-pp masc pl
'People/we have exchanged them (one with another)'

Thus an Obligatory Contour Principle-style phonological proposal (cf. Leben 1973, Goldsmith 1976, McCarthy 1986, Yip 1988 among others) seems inadequate.

Cinque (1995) has a different proposal: he claims that this disambiguation is due to a morphological constraint according to which only one instance of a lexical item may be present in a clitic cluster. Therefore, one of the two has to be 'transformed' into something else. This 'something else' is *ci*, which in Italian is either a locative, or the dative form of the 1st person plural pronoun *noi*. Following Cinque, we maintain that *ci* in (85) is the dative form of the 1st person plural pronoun.

Support for the claim that *ci* is a pronoun and not a locative is provided by the following two examples: in (88) *ci* is clearly interpreted as a locative, whereas in (89) it is interpreted as a benefactive dative pronoun.

(88) *(Con le pere)* *ci* *si* *mangia* *il* *cacio*
with the pears ci-loc si-imp eats the cheese
'With pears one often eats cheese'

(89) *Se si* *ha* *freddo* *ci* *si mette* *la* *sciarpa*
if si has cold ci-asp si wears the scarf
'If one is cold one wears his/her scarf'

The *si* that is present in (89) is the same as the one which is present in (85). In (85), *si* is thus the dative form of the 1st person plural pronoun. This in turn means that even Zagona's aspectual *si* does not affect aspect, but is rather an element which can only be present when the verb is telic, like impersonal *si*. Aspectual *si* is also a pronoun that can be inflected for

person and number, and which bears a Benefactive θ-role. As a matter of fact, the claim that aspectual *si* is only related to aspect is an understatement, since aspectual *si* is strictly related to the completion of the event, but also comprehends a Benefactive reading, which was not taken into consideration by Zagona's analysis. The Benefactive reading of aspectual *si* is more evident when a 1st or 2nd person subject is present, as in (90):

(90) *Tu ti sei comprato una*
you-nom you-dat are-2nd sg bought-pp masc sg a-fem sg

*casa*
house-fem sg
'You have bought yourself a house'

The Benefactive θ-role is well known to be optionally present in the argument structure of transitive verbs. If we now consider aspectual *si* once again, as in (91), what strikes us is its optionality. One can say both: *Giovanni mangia la mela* ('Giovanni eats the apple') and *Giovanni si mangia la mela* ('Giovanni eats up the apple'). In the past tense, these sentences are almost equivalent:

(91) *Giovanni ha mangiato una mela*
Giovanni has-3rd sg eaten-pp masc sg an apple
'Giovanni ate an apple'

(92) *Giovanni si è mangiato una mela*
Giovanni si is-3rd sg eaten-pp masc sg an apple
'Giovanni ate an apple'

(91) and (92) differ only for the choice of the auxiliary, which in (91) is HAVE because we are dealing with a transitive verb and in (92) is BE because *si* is present (cf. section 3.4. in chapter 1).

The question remains of the exact merging site of *ci* remains open, however: If impersonal *si* is merged in the specifier of *res*P, where is *ci* merged? We propose that *ci* and *si* are merged in two specifiers of the same *res*P. The morphological constraint proposed by Cinque (1995) is therefore based on syntactic factors, occurring when the two *si*s are merged into the same projection.

One last observation is in order here. The presence of *ci* seems to force the disappearance of the agreement ending on the verb. In other words, for many Italian speakers (93) sounds better than (94), a proper ISC with V-O agreement.

(93) *(Se fa freddo) ci si mette i*
if makes-3rd sg cold si-asp si-imp put-3rd sg the-masc pl

*pantaloni*
trousers-masc pl
'If it is cold one wears trousers'

(94) ?(*Se fa freddo) ci si mettono*
if makes-3rd sg cold si-asp si-imp put-3rd pl

*i pantaloni*
the-masc pl trousers-masc pl
'If it is cold people wear trousers'

Furthermore, it is worth observing that (95) is also grammatical, and semantically equivalent to (93) and (94):

(95) *(Se fa freddo) si mettono*
if makes-3rd sg cold si-imp put-3rd pl

*i pantaloni*
the-masc pl trousers-masc pl
'If it is cold people wear trousers'

(93) is not an instance of an ISC without V-O agreement, it is not an accomplishment. It is a sentence with an 'unusual' agreement pattern, like those in use in Tuscany. We will try to provide an analysis of this construction in the next section.

To sum up, in this section we have seen that aspectual *si* constructions offer further evidence for our classification of ISCs into accomplishments and achievements. It was proposed that both impersonal and aspectual *si* are merged in the specifiers of the inner aspectual projection *res*P, which encodes telicity, and that this causes the so-called *ci-si* disambiguation. We can now turn to the derivation of ISCs with V-O agreement.

### 3.3. *Si* in the specifier of *res*P

In the previous sections, we have put forward the following hypotheses:

- ISCs with and without V-O agreement are not instantiations of a passive and an active *si* respectively: they are rather instantiations of one and the same lexical item, which is merged in *v*Ps that differ with respect to the sub-components of the event they encode.

- ISCs with V-O agreement are actually accomplishments, and therefore their structure includes an 'extra' inner aspectual head which encodes telicity (or resultativity): *res*P.

- ISCs without V-O agreement denote activities, and therefore lack the resultative inner aspectual head *res*P.

- Impersonal *si* in ISCs with V-O agreement is merged in the specifier of *res*P.

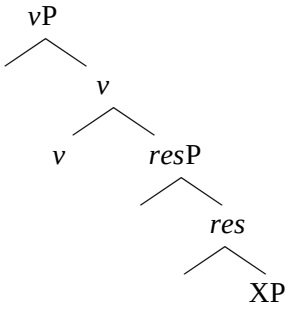
In this section, we outline the derivation of ISCs with transitive verbs and V-O agreement. Merging impersonal *si* in Spec, *res*P creates an intervention effect in the assignment of Accusative, thus leading to the assignment of Nominative to the object.

Let us consider once again the ISC with V-O agreement in the present tense.

| | | | | |
|---|---|---|---|---|
| (96) | *In Italia* | *si mangiano* | *gli* | *spaghetti* |
| | in Italy | si eat-3rd pl | the-masc pl | spaghetti- masc pl |
| | 'In Italy they eat spaghetti' | | | |

The structure that will be adopted is the one outlined in (81), repeated here as (97):

(97)




Following the original proposal made in Kratzer (1994) and later adopted by Chomsky (1995, 1999), the assumption is also made that *v* is the locus of assignment of Accusative case and external θ-role.

Before turning to the derivation, we need to address the issue of present vs. past tense. One might argue that the sentence in (96) does not have a telic reading, but rather a habitual/statement reading, and therefore that it is not an accomplishment. However, as observed by Dowty (1979), accomplishments in the present tense may acquire a statement/habitual reading depending on the context. Moreover, the past tense is the unmarked tense for non-statives (see Bickerton 1981). Let us consider the contrast between (98) and (99):

(98) John has read the books in an hour

(99) John reads the books in an hour

While (98) expresses an accomplishment, (99) predicates of a 'property' of John, makes a statement, or has a habitual reading (*John reads the books in an hour every time he checks some out*).

Thus, telicity might not be 'visible' in the present tense of accomplishment verbs, but the fact that it is there in the past tense allows us to postulate its presence in the present tense as well. Observe that this is different from claiming that a verb which may in turn encode an accomplishment and an activity is representable by a unique syntactic structure, as Kempchinsky (2000) asserts. Such a statement presupposes the existence of a complex lexical entry, which encodes this alternation. Postulating such a lexical entry contradicts the basic assumption according to which the semantics of a sentence is determined by its syntactic

configuration, and that each syntactic configuration corresponds to a different semantics. Assuming that different inner aspectual specifications are mirrored by different syntactic structures, it follows that our puzzling agreement patterns are simply the result of merging *si* in two different syntactic structures. More specifically, if *si* appears in an ISC with V-O agreement, it is merged in the specifier of the projection that encodes telicity, *res*P. If *si* appears in an ISC without V-O agreement, it is merged in the specifier of *v*P.

In ISCs with V-O agreement, from the spec, *res*P position, *si* intervenes between *v* and the object in the assignment of Accusative case, leaving the DP object free to receive Nominative Case from the T head. This intervention effect does not take place in ISCs without V-O agreement, as the telicity projection *res*P is not present. In this case *si* is merged in the specifier of *v*, and does not intervene in Accusative assignment. The DP object may thus receive Accusative case. This means that there is no need to postulate special properties for *si*, and that the peculiar agreement patterns are instead just the result of the interaction of *si* with different syntactic structures.

Let us now return to the sentence under examination, namely a transitive ISC with V-O agreement like (96). The derivation of this sentence goes as follows (see also the tree diagram in (101)).

The DP object *gli spaghetti* is merged with the *res* head, and there it gets the internal θ-role. It needs to get its Case feature valued. Impersonal *si* is merged in Spec, *res*P. Then[18], *v* is merged with *res*P. *v* needs to get its φ-features valued, and therefore it looks down for a DP with which it Matches. It finds *si*. Recall that *si* has a 3rd person feature, unvalued number (and unvalued gender). Therefore, *si* values *v* as 3rd person and is valued as Accusative. The unvalued number feature on *si* and *v* do enter a Match relation, but they of course remain unvalued. However, Full Match is enough for Case on *si* to be valued as Accusative. However, since number on *si* is unvalued, *si* cannot value the number feature on *v*. *v* looks lower down until it finds the DP which has number and can value its unvalued number feature. This way, *v* gets its number feature valued according to the number of the object (plural in the case of *gli spaghetti*). T is merged. T, like *v*, also enters the derivation with a full set of unvalued φ-features, which need to be valued. Therefore, T looks down for a φ-set that can value its unvalued φ-set. It Matches with *si*, which is 3rd person. However, *si* is an inactive Goal, since its features have undergone Match

and its Case feature has been valued. Therefore T keeps 'searching' until it meets the DP object, whose φ-set is complete.

It should be noticed that in principle *si* should be still visible to T, even if it is valued, because of the existence of a *Defective intervention constraint*, as proposed by Chomsky (2000). The defective intervention constraint is stated as in (100):

(100) *The defective intervention constraint* $\alpha > \beta > \gamma$ (*Agree $(\alpha,\gamma)$, $\alpha$ is a probe and $\beta$ is a matching goal, and $\beta$ is inactive due to prior Agree with some other probe) [from Chomsky (2000:123)]

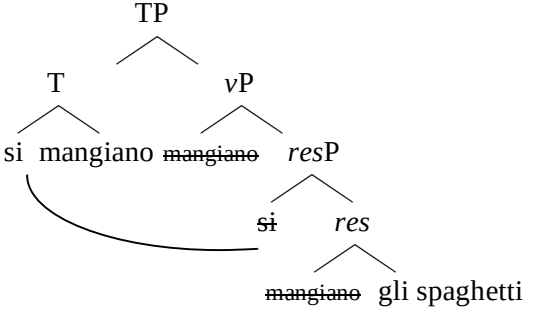
(100) states that the features on the intervening Goal still matter for locality, despite the fact that they are inactive, thereby blocking a further long-distance Agree relation. We do not assume a defective intervention constraint, however, but we take the view that once features are all valued, the goal becomes invisible for the derivation. *Si* is therefore invisible to T in principle. However, this is also untrue, since *si* is a T-clitic, and therefore it incorporates onto the T head. As stated in the introduction, we take a 'syntactic' view of clitics here, and we do not assume that cliticization takes place at PF. Reordering of clitics takes place at PF, but cliticization itself takes place in the syntax. Hence, *si* cliticizes onto T in the syntax, before Spell-Out. Thus, we wish to propose that *si* is in fact visible to T because of its clitic nature, and not because of the defective intervention constraint. We will come back to the details of this proposal in chapter 3. Observe that even if *si* were an active Goal for T, it could perform only a partial intervention effect, since it only has a valued person feature. So, while T should not be able to agree with any other person feature, it would still have to probe for a number feature. Therefore, partial Match would take place anyway between T and the DP object.

It needs also to be observed that the number feature of *si* also needs to be valued in order for the derivation to converge. The unvalued number on *si* undergoes Match with the unvalued number on *v*, and this would create the conditions for default agreement to apply. However, since a valued number feature exists in the c-command domain of *v*, namely the number feature on the DP, we have seen that *v* (and T) both agree with it and get their features valued. This entails that *si* also gets its number feature valued as the number feature of the DP object, since we do not wish to have feature mismatch on the complex *v* and T heads. We will explore the mechanism of multiple Agree in more detail in the next chapter. For now,

we just wish to underline that default agreement is a last resort operation, which can apply only when a specific configuration is met, if nothing else in the derivation is able to value an unvalued feature on a functional head.

Furthermore, observe that *v* Agrees with both *si* and the DP object, but we do not see a reflex of this agreement in the morphology of the verb. This is indeed a general issue with languages that display 'V-to-T' movement. The verb raises to T through *v*, because of the Head Movement Constraint that we assume is at work. *v* usually Agrees with the object when present, but we do not see any morphological reflex of this agreement with the object on the verb (with the exception of sentences which involve object clitics, in which case agreement is visible; cf D'Alessandro & Roberts 2007a for a minimalist analysis of these agreement facts). This suggests that the lexical insertion at PF reflects the information which is present in the final position of the verb, which is T. We will come back to the mechanisms of agreement of *v* in chapter 5 (the reader is referred to D'Alessandro 2004a, b, to appear a,c for a different implementation of the same ideas). For now, we do not wish to discuss this any further here, and we just assume that whatever mechanism takes care of agreement on T in Italian is at work here too. The EPP on T is satisfied by *si*.

(101)




The structure in (101) also straightforwardly accounts for the Rumanian data in (73)-(74). *Si* is overtly marked for Accusative Case in Rumanian. As noted above, Rumanian lacks the agreement pattern without V-O agreement.

Before turning to the past tense, we wish to observe an interesting fact about ISCs with V-O agreement, like the one in (101). We have seen that in (101) *si* is valued as Accusative and bears the external θ-role. The *v* head is therefore not defective. However, in (101), *v* is not a phase head, since the φ-features on T can be valued by the DP object, which would be unaccessible to T if *v* were a phase head because of the Phase Impenetrability Condition (Chomsky 2001). This piece of data opens an interesting issue regarding the relation between defectivity and non-phasehood, which we will not be able to discuss here. We limit ourselves to observing that we seem to have an instance of φ-complete *v* which is not a phase head in ISCs with V-O agreement.

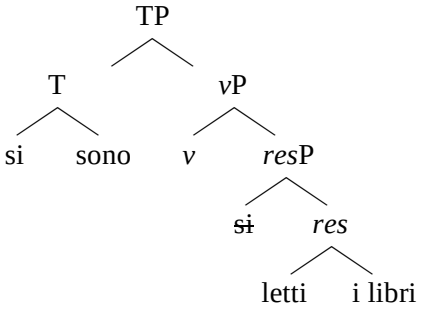
For sentences in the past tense, a similar derivation takes place. Consider a sentence like (102), the past tense equivalent of (5):

(102) *In biblioteca* *si sono* *letti* *i*
in library si are-3rd pl read-masc pl the-masc pl

*libri*
books-masc pl
'Someone/we read books in the library'

In (102), both the auxiliary and the past participle show morphological agreement with the object *i libri*. For past participle agreement, we will mainly follow the proposal outlined in D'Alessandro & Roberts (2007a), according to which past participle agreement in Italian is obtained at PF when the feature bundles of the agreeing items are spelled out in the same 'chunk'. In other words, past participle agreement takes place when the past participle and the DP it agrees with belong to the same domain, which is the complement of the phase head, as identified by the Phase Impenetrability Condition (Chomsky 2001). We will return to past participle agreement in ISCs in detail in chapter 5. For the moment, we limit ourselves to proposing that the past participle is hosted in a *res*P. The derivation of (102) is represented in the tree diagram in (103). We will discuss it in detail in chapter 5.

(103)




In this section, we have seen how the agreement patterns of ISCs with verb-object agreement are the result of the interaction of impersonal *si* with the other items in the clause. We have shown that there is no need to postulate defective heads or special properties for *si* such as ability to absorb or withdraw θ-role or Case. We can now turn to the examination of the derivation of ISCs without V-O agreement.

### 3.4. *Si* in the specifier of *v*

We have seen that aspectual *si* is not licensed in ISCs without V-O agreement because they are activities. As stated in the last section, for ISCs without V-O agreement we depart from Kempchinsky's (2000) proposal for transitive activities. According to Kempchinsky, if a verb may in turn be an accomplishment and an activity, its structure has to encode telicity even when an activity is instantiated: this hypothesis, as stated in the last section, contradicts the basic minimalist idea of different structures encoding different aspectual classes. We therefore depart from Kempchinksy's analysis by assuming that no *res* head is present on activity predicates. If we go back to the alternation between (98) and (99), we see that (99) is not an activity: it is still an accomplishment and behaves as accomplishments are expected to behave in the present tense. That is to say that while the nature of the object may affect the aspectual classification of a VP, tense usually does not.

We have proposed that the *process* sub-component is encoded on the *v* head, together with the *initiator*. In ISCs without V-O agreement, *si* is merged in the specifier of *v*. It checks the external θ-role by being merged in the specifier of *v*, being the highest argument. It does not take part,

therefore, in Accusative Case assignment, as it is merged in a projection higher than *v*. As stated in the introduction, we assume that intervention obtains under closest c-command. Thus, the verb does not show agreement with the object, which is marked with Accusative.

Let us consider again (2), here repeated as (104):

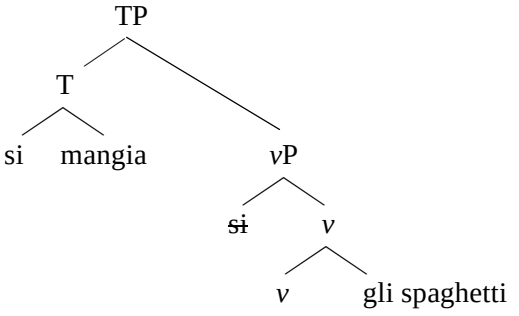
| | | | | |
|---|---|---|---|---|
| (104) | *In Italia si* | *mangia* | *(gli)* | *spaghetti* |
| | in Italy si | eats-3rd sg | the-masc pl | spaghetti-masc pl |
| | 'In Italy they eat spaghetti' | | | |

As shown in section 1.3., in (104) the object is a real object, i.e. an internal argument. Nevertheless, in (104) there is no V-O agreement: the verb exhibits the 3rd person singular default ending and the object bears Accusative. According to this proposal, if Accusative is assigned to the direct object no intervention effect of *si* can possibly have occurred. In fact, *si* is merged in the specifier of *v*, and thus does not intervene in the assignment of Accusative. The derivation of (104) is thus that of a normal transitive construction, and runs as follows: The object *gli spaghetti* is merged with *v* (recall that there is no 'traditional' VP in this system). This object is a non-defective DP, bearing both valued number (plural) and valued person (3rd). *v* is also non-defective, and needs to have its φ-set valued. *v* Matches and Agrees with the DP object, and values the Case feature on the DP object as Accusative. *Si* is merged in the specifier of *v* and checks the external θ-role on *v*. T is merged, and needs to have its features valued; T Matches with *si*, which values its feature as 3rd. As a result, the verb shows the 3rd person inflection. The unvalued number feature of *si* Matches with the unvalued number feature of T. Match of these features creates the conditions for default agreement to be assigned at PF. Observe that in this case the φ-features of T cannot be valued by the DP object, which is not accessible to T because of the PIC, given that *v* is a transitive phase head. Hence, the number feature on T is valued as singular by default. Morever, *si* receives Nominative Case and cliticizes onto T, thus also checking the EPP. Recall that in the case of ISCs with V-O agreement, *si* is also inactive after receiving Accusative Case from *v*. Nevertheless, it is visible to T because it cliticizes onto it.

We will explore the consequences of this incorporation in the next chapter.

The derivation of (104) is in (105):

(105)




In ISCs with V-O agreement no intervention takes place in the assignment of Accusative. The object is thus 'free' to check Accusative and *si* gets Nominative, in accordance with Belletti (1982).

Observe that Accusative assignment in (104) might also take place through a different operation, namely syntactic incorporation (see Baker 1996). In order for incorporation to take place, in fact, a bare plural or unspecified object is required (see Baker 1988 and Van Geenhoven 1998). In the case of (104), the DP object would receive Case by incorporating into the verb. This proposal is not completely unnatural if one thinks of the meaning of ISCs without V-O agreement. It has been shown that they indicate an action. Therefore, the incorporation of the object into the verb makes perfect sense. In a sentence like (104), two possible meanings are available: the first is given in the translation 'In Italy they eat spaghetti'. The second is something like 'In Italy there is spaghetti eating going on all the time'. This second reading seems to reflect incorporation. For the moment, we leave open the question of whether ISCs without V-O agreement are an instance of usual Accusative assignment or rather an instance of incorporation. However, the agreement patterns in the past tense, as we will see in chapter 5, seem to indicate that both solutions are equally likely. In other words, we could be in the presence of two different syntactic constructions that are by chance coincident.

To summarize, in this section it has been shown that in ISCs without V-O agreement no intervention takes place in the assignment of Accusative. The object is free to 'check' Accusative and *si* is Nominative.

### 3.5. What about achievements?

According to the analysis just outlined, ISCs with V-O agreement are accomplishments, and as such they have an extra inner aspectual head where information about the telicity of the event is encoded. *Si* is merged in this projection, and thus it intervenes in Accusative assignment. If this analysis is correct, we also expect to see an intervention effect surfacing in the telic verb class *par excellence*, namely achievement verbs. According to Vendler's classification, achievements are telic with no duration. If we now consider a transitive achievement verb like *riconoscere*, 'recognize', we expect to have an ISC with V-O agreement, since the inner telicity head is present and *si* needs to be merged there. This is in fact what we see, as shown in (106):

(106) *Si sono* *riconosciuti* *subito* *i colpevoli*
si are-3rd pl recognized-pl immediately the culprits-pl
'Someone immediately recognized the culprits'

An ISC without V-O agreement is ungrammatical:

(107) * *Si è* *riconosciuto* *subito*
si is-3rd sg recognized-sg immediately

*(i)* *colpevoli*
the-pl culprits-pl

The difference between (106) and (107) constitutes a strong piece of evidence for the analysis just outlined. Achievements are inherently telic, and therefore they should have a *res* projection available. *Si* should therefore be merged there, performing an intervention effect in respect of Accusative assignment. This is exactly the case, as (106) shows.

The fact that (107) is ungrammatical suggests that not only may impersonal *si* be merged in the specifier of the *res*P when this projection is present, but it must. Moreover, if we try to force an achievement verb into a non agreement pattern, the result is ungrammaticality. This shows once again that ISCs without verb-object agreement are a-telic.

## 4. Conclusions

In this chapter, we have addressed the issue of agreement in transitive ISCs with and without V-O agreement. For the analysis of ISCs with transitive verbs, we have proceeded as follows: First, two 'prototypical' agreement patterns have been identified. Second, these agreement patterns have been shown to involve two independent constructions, and in particular ISCs with V-O agreement have been shown to encode accomplishments while ISCs without V-O agreement encode activities. The agreement patterns of ISC are independent of *si*; more specifically, they are due to the different *Aktionsarten* of the VP, and not to special and optional properties of impersonal *si*. Moreover, the agreement patterns investigated clearly show that *si* cannot be considered as a head, but that it is rather a DP. *Si* may check Case and bear a θ-role, and behaves like a pronoun. However, it is also sensitive to the aspectual setting of the sentence it appears in.

To conclude this chapter, let us return to the questions proposed at the end of section 1. In this section, we obtained the following answers to these questions:

**Q**: What exactly is responsible for the alternation between ISCs with V-O agreement and ISCs without V-O agreement?
**A**: The different agreement patterns are due to the different *Aktionsart* of the two ISCs, and not to any special property attributable to impersonal *si*.

**Q**: Why is a *by*-phrase not admitted in either of the two ISC constructions?
**A**: Because for both constructions *si* represents the external argument.

**Q**: How can we justify the Accusative marker on *se* in Rumanian?
**A**: By saying that *se* gets Accusative in ISCs with V-O agreement.

**Q**: Why is it that the construction without V-O agreement is much less common than the one with V-O agreement?
**A**: As stated above, the reason why ISCs without V-O agreement are less acceptable and less frequently used than constructions with V-O agreement is attributable to a more general property of verb classes: transitive accomplishments are more frequent than transitive activities (Kempchinsky 2000). The frequency of occurrence is thus not related to the constructions themselves, but rather reflects a general trend of verb classes.

# Chapter 3
# The person restriction in transitive ISCs

## 1. Introduction

It has often been observed that ISCs with V-O agreement are subject to a specific constraint: their object cannot be other than 3rd person (Burzio 1986, Cinque 1988). This phenomenon is known as the person restriction on the object, and is illustrated in (1)-(6):

(1) *In televisione* *si vede* *spesso* *Maria/ lui*
in television si sees-3rd sg often Maria him-3rd sg Nom
'One often sees Maria on the tv'

(2) *In televisione* *si* *vedono* *spesso* *loro*
in television si see-3rd pl often they-3rd pl Nom
'One often sees them on the tv'

(3) **In televisione* *si vedo* *spesso* *io*
in television si see-1st sg often I-1st sg Nom

(4) **In televisione* *si vedi* *spesso* *tu*
in television si see-2nd sg often you-2nd sg Nom

(5) **In televisione* *si vediamo* *spesso* *noi*
in television si see-1st pl often we-1st pl Nom

(6) **In televisione* *si vedete* *spesso* *voi*
in television si see-2nd pl often you-2nd pl Nom

In (3)-(6), the presence of a 1st/2nd person object leads to ungrammaticality. The person restriction on the object does not hold for ISCs without V-O agreement, as shown in (7):

(7) *In televisione* *mi /* *ti/* *lo*
in television me-1st sg Acc you-2nd sg Acc him-3rd sg Acc

*si vede*
si sees-3rd sg
'One sees me/ you/ him on television'

ISCs with verb-object agreement thus display a person restriction on the object, which can only be 3rd person.

In this chapter, we try to account for this person restriction. This phenomenon was first brought to light by Burzio (1986) and Cinque (1988), although no explanation has been provided so far. However, both Taraldsen (1995) and Rivero (2004, to appear) observed that a person restriction holds for some Spanish constructions involving *se*, such as the impersonal *se* constructions and those constructions with experiencer verbs with inherent *se* morphology (Rivero 2004). Moreover, it is well known that the so-called quirky dative constructions (QDCs) in Icelandic are also subject to a person restriction on the object.

Here, we wish to examine all the relevant proposals made to explain the person restriction, and check whether they can provide a meaningful explanation for the Italian facts, that remain unexplained to date. It will be shown that, although ISCs with V-O agreement closely resemble quirky subject constructions, they are not exactly the same. We will propose that the person restriction is simply the result of the fact that T agrees with the object and also 'sees' *si*, as proposed in the previous chapter. The condition on non-distinctness of features proposed by Chomsky (2004), which is reformulated in terms of a Multiple Agree constraint by Anagnostopoulou (2005), is claimed to be responsible for the person restriction.

Two paths are followed in explaining the person restriction phenomenon: on the one hand, we shall examine constructions that exhibit the same syntactic structures as Icelandic QDCs, such as Italian psych verbs of the *piacere* class. These constructions do not present a person restriction, contrary to what most proposals (like for example that of Boeckx 2003) predict. On the other hand, we shall compare Icelandic QDCs with Italian ISCs. These two constructions are shown not to be syntactically equivalent, but they do present the same phenomenon: a person restriction on the object. The comparison of Icelandic QDCs with Italian ISCs on the one hand and with Italian psych verbs on the other leads us to conclude that it is the presence of the Italian impersonal *si* and of the Icelandic *-st* suffix, at least for a class of Icelandic verbs, that determines the person restriction. When one of the two elements is absent in a clause,

like in the case of Italian psych verbs of the *piacere* class, the person restriction does not arise. Further comparison is drawn between Italian ISCs and Spanish *olvidarse* constructions, which are argued to present a person restriction because of the presence of *se*.

The present chapter is organized as follows: In section 2., it is shown that person restriction is not limited to Italian ISCs with V-O agreement, but that it extends to Icelandic QDCs and to some Spanish verbs: the *olvidarse* class. Other constructions are examined in 2.3. that present the same syntactic configuration as Icelandic QDCs but do not show a person restriction on the object: Italian psych verbs of the *piacere* class and Spanish psych verbs of the *gustar* class. An analysis of structures involving these verbs is also provided. In section 3, the main accounts of the person restriction in Icelandic and Spanish are summarized. We do not know of any explanation of the facts of Italian ISCs. These analyses are then applied to Italian data, giving unsatisfactory results. In section 4, an analysis is suggested for Italian ISCs, which singles out *si* as responsible for the person restriction. This analysis explains both the Italian and the Spanish facts. For Icelandic, the proposal is made that the suffix *-st*, which is present on the majority of verbs that undergo the person restriction, is responsible for this restriction, at least for the class of verbs that exhibit an *–st* ending, in section 5. Section 6 addresses the problem of the lack of person restriction in ISCs without V-O agreement and in psych verbs of the *piacere* class. Finally, section 7 contains the conclusions.

## 2. The person restriction on Nominative objects: where and when

The aim of this section is to provide a detailed overview of the data on person restriction. Together with those Italian, Icelandic and Spanish constructions that do exhibit a person restriction on the Nominative object, a set of data is introduced illustrating the reverse phenomenon, i.e. the lack of person restriction on the Nominative object in some constructions where it would be expected to be present. From the comparison of the two data sets a very interesting profile emerges of the person restriction phenomenon.

The person restriction on the object is a phenomenon that only concerns constructions involving impersonal *si* in Italian. Specifically, ISCs with V-O agreement only license a Nominative object if it is 3rd person. In other words, 1st and 2nd person pronouns are excluded from the object position

of ISCs with V-O agreement. To my knowledge, ISCs are the only constructions in Italian which display such a constraint. They are, however, not the only constructions which require a Nominative object in Italian. Some Italian psych verbs also require a Nominative object, but they crucially do not exhibit a person restriction on it. The contrast between ISCs and psych verbs may thus indicate the direction to be followed in order to find an explanation for the person restriction phenomenon.

## 2.1. Italian ISCs and the person restriction

Italian ISCs with V-O agreement reflect a constraint regarding the person feature of the object, which cannot be other than 3rd person, as exemplified in (1) through (6), here repeated as (8)-(13):

(8) *In televisione* *si vede* *spesso* *Maria/ lui*
in television si sees-3rd sg often Maria him-3rd sg
'One often sees Maria on the tv'

(9) *In televisione* *si* *vedono* *spesso* *loro*
in television si see-3rd pl often they-3rd pl Nom
'One often sees them on the tv'

(10) **In televisione* *si vedo* *spesso* *io*
in television si see-1st sg often I-1st sg Nom

(11) **In televisione* *si vedi* *spesso* *tu*
in television si see-2nd sg often you-2nd sg Nom

(12) **In televisione* *si vediamo* *spesso* *noi*
in television si see-1st pl often we-1st pl Nom

(13) **In televisione* *si vedete* *spesso* *voi*
in television si see-2nd pl often you-2nd pl Nom

Interestingly, ISCs without V-O agreement do not undergo the same constraint, as (14)-(16) show:

(14) *In televisione* *li* *si vede* *ogni*
in television them-3rd pl Acc si sees-3rd sg every

*giorno*
day
'One sees them every day on the TV'

(15) *In televisione* *lo* *si vede* *ogni*
in television him-3rd sg Acc si sees-3rd sg every

*giorno*
day
'One sees him every day on the TV'

(16) *In televisione* *ti /* *mi /* *ci /*
in television you-2nd sg / me-1st sg / us-1st pl

*vi* *si vede* *ogni* *giorno*
you-2nd pl si sees-3rd sg every day
'One sees you (sg) /me /us /you (pl) every day on the TV'

At first sight, it appears that the object must bear Nominative case in order for the restriction to apply. This amounts to saying that the object needs to agree with the Nominative assigning head, T. If such an agreement relation does not hold, the person restriction does not seem to apply. Hence, we can argue that an agreement relation between the object and T is a necessary condition for a person restriction to hold. This observation is crucial if one wishes to choose between those analyses which treat the person restriction problem as a 'feature hierarchy' problem (see for example Haspelmath 2001 and Bianchi 2006). Under this view, the person restriction is the result of a direct comparison of the object DP with the subject DP, and no agreement relation is involved. More specifically, this comparison does not involve agreement with T in any way. In particular, according to this line of reasoning, the person restriction is due to a person-animacy hierarchy like that which is active in the so-called 'inverse-systems', like Algonquian. In inverse systems, there is a relative ranking among arguments: 1st person>2nd person> 3rd person animate> 3rd person inanimate. Moreover, in these systems, the object person must not outrank the subject person. Therefore, the person restriction on objects follows straightforwardly from

the fact that the object must always be lower in the hierarchy than the subject. However, Bruening (2001) extensively shows that the person restriction on the object that takes place in quirky subject constructions and the output of the feature hierarchy constraint are not equal, given that the feature hierarchy constraint is linked to obviation, which plays no role on the person restriction in quirky subject constructions. Therefore, the two phenomena must be kept distinct and the two analyses can account for the same facts only superficially. In this chapter, the feature hierarchical approach will not be considered any further, and we will pursue a structural analysis of the person restriction. For further discussion on the hierarchy approach, the reader is addressed to Bruening (2001), Haspelmath (2001), Bianchi (2006), and Anagnostopoulou (2005).

## 2.2. Person restriction in Icelandic quirky subject constructions

The syntax of Nominative objects has been the topic of intensive research in the recent years [see Sigurðsson (1992, 1996, 2000a,b 2001, 2002, 2004 a,b,c), Taraldsen (1995), Schütze (1997), Boeckx (1998, 2000, 2003, to appear), Chomsky 2000, Hiraiwa (2001), Holmberg & Hroarsdottir (2002), Haeberli (2002), Anagnostopoulou (2003), Bejar & Rezac (2003), Ormazabal & Romero (2002), Hrafnbjargarson (2001, 2004) among others].

Icelandic quirky subject/quirky dative constructions (QDCs) share some features with Italian ISCs. In particular, they also reflect the person restriction constraint on the object, and therefore they are eligible for a comparative analysis with Italian ISCs. Let us examine the salient features of Icelandic quirky dative constructions. One such construction is exemplified in (17):

(17) *Henni* *leiddust* *strákarnir/* *þeir*
her-dat bored-3rd (2nd) pl the boys-pl Nom/ they-3rd pl Nom
'She found the boys/them boring'
[from Sigurðsson (1996:1)]

In (17), the Nominative object *strákarnir* agrees with the verb, whereas the subject *henni* is marked for dative. Interestingly, the Nominative object may not be other than 3rd person, as (18) exemplifies:

(18) **Henni leiddust þið/*
her-dat bored-2nd (-3rd) pl you-pl Nom/

*leiddumst við*
bored-1st pl we-pl Nom
'She found you/ us boring' [from Sigurðsson (1996:28)]

Boeckx (2003:1-2) lists the main characteristics of Icelandic QDCs (the notes in square brackets are my own):

- Nominative objects are found only in the context of Quirky subject constructions.

- Quirky subjects, unlike Nominative subjects, do not trigger morphological agreement on the finite verb. This is illustrated in (19) [from Boeckx (2003:1)]:

(19) *Stelpunum var hjálpað*
the-girls- pl fem dat was-3rd sg helped-sg
'The girls were helped'

- Agreement between the finite verb and the Nominative object is limited to number agreement. In particular, person agreement is excluded [i.e. a person restriction on the object holds].

- Finite verb agreement with the Nominative object is excluded if a Quirky element is within the c-command domain of the verb at Spell-Out [i.e. if a quirky element intervenes between the verb and the Nominative object], as shown in (20):

(20) *Mer fannst / *fundust [henni leiðast þeir]*
me-dat seemed-3rd sg / seemed-3rd pl her-dat bore they- Nom
'I thought she was bored with them'

In addition to these properties, Andrews (1976) and Zaenen, Maling & Thrainsson (1985) among others, have shown that Icelandic quirky datives behave like ordinary Nominative subjects with respect to various

subjecthood tests. An Icelandic quirky dative may, for instance, bind a reflexive, as shown in (21):

(21) *Henni*$_i$ *leiðist* *bókin* *sín*$_i$ / **hennar*$_i$
her-dat bores book-the-Nom self's / her
'She finds her (own) book boring' [from Sigurðsson (2004:5)]

What matters for us in particular is that Zaenen, Maling & Thrainsson (1985) show that quirky datives land in the Spec, TP position, i.e. in the position usually occupied by structural subjects. This reminds us of Italian psych verbs of the *piacere* class, which also exhibit a dative subject in Spec, TP as we will see in the next section. The dative DP of Italian psych verbs is a quirky dative, as shown by Belletti & Rizzi (1988) and Cardinaletti (2004) among others, and therefore Italian psych verbs feature in QDCs. Unlike Icelandic, however, Italian psych verbs do not exhibit the person restriction on the Nominative object.[19] Differently from psych verbs, Italian ISCs are not QDCs (as shown in D'Alessandro 2003, *pace* D'Alessandro 2002a,b,c), but they do present a person restriction on the Nominative object.

## 2.3. Italian and Spanish psych verbs

The data illustrated in 2.1. show that Nominative case is a necessary condition for the person restriction to apply. The question is now whether Nominative case on the object is also a sufficient condition for the person restriction to apply. If it were so, any time we had a Nominative object, a person restriction should occur. The answer to this question is quite straightforward, if one considers some data from Italian psych verbs. Italian psych verbs of the *piacere* class exhibit a Nominative object.[20] Belletti & Rizzi (1988) show that these psych verbs are underlying unaccusatives, and that therefore both their arguments are VP-internal. This amounts to saying that in a sentence like (22), the Nominative DP is an internal argument.

(22) *Mi* *piace* *la*
me-1st sg dat likes-3rd sg the-fem sg

*cioccolata*
chocolate-fem sg Nom
'I like chocolate'

In (22), *la cioccolata* is a Nominative object. The dative argument is shown to behave like a real subject, and thus differently from left dislocated elements. Discussion of these issues will be presented below. Interestingly, sentences like (22) do not exhibit any restriction on the person feature of the object, as the following example shows:

(23) *Mi* *piaci* *tu*/
me-1st sg dat like-2nd sg you-2nd sg Nom/

*piace lui*/ *piacete* *voi*
likes-3rd sg he 3rd sg Nom/ like-2nd pl you-2nd pl Nom
'I like you (sg)/like him/ like you (pl)'

In (23), the object may be 1st, 2nd, or 3rd person. This example clearly shows that a Nominative object is a necessary but not sufficient condition for the person restriction to apply.

Italian psych verbs of the *piacere* class, also known as third-class psych-verbs, according to the classification proposed by Belletti & Rizzi (1988), share many characteristics with Icelandic QDCs. In particular, they exhibit a Nominative object and a dative subject, just like Icelandic QDCs. Moreover, the dative DP bears an Experiencer θ-role, just like most of the Icelandic quirky datives do.

In their seminal paper, Belletti & Rizzi (1988) address the question of whether the structural position of preverbal dative experiencers is a 'TOP position' (i.e. a position in which the dative experiencer is topicalized) or a structural subject position. They observe that the order Experiencer-V-Theme is unmarked, and does not require contextual justification. This indicates that the dative Experiencer is not topicalized. The examples they present to support their hypothesis, (24), (25), and (26), involve contexts in which a topicalized dative verbal complement is not permitted while a topicalized dative experiencer is allowed.

(24) *Tutti sono* *preoccupati* *perché* *ho* *raccontato*
all are worried because I-have told

*questa* *storia* *a* *Gianni*
this story to Gianni
'Everybody is worried because I told this story to Gianni'
[from Belletti & Rizzi (1988:337)]

(25) *?? Tutti* *sono* *preoccupati* *perché* *a* *Gianni ho*
all are worried because to Gianni I-have

*raccontato* *questa* *storia*
told this story
'Everybody is worried because I told this story to Gianni'
[from Belletti & Rizzi (1988:337)]

(26) *Tutti* *sono* *preoccupati* *perché* *a* *Gianni*
all are worried because to Gianni

*piace* *la* *linguistica*
likes-3rd sg the linguistics-fem sg
'Everybody is worried because Gianni likes linguistics'
[from Belletti & Rizzi (1988:337)]

(26) is different from (24) and (25) in that the dative subject *a Gianni* is not topicalized in (26). In (25), the topicalization of *a Gianni* leads to ungrammaticality. (26) is grammatical because *a Gianni* is not topicalized, but it is located in a structural subject position.

Belletti & Rizzi also show that while wh-extraction across a topicalized dative is quite deviant, wh-extraction across a preverbal Experiencer is perfectly acceptable:

(27) ?? *I* *libri* *che a* *Gianni ho* *dato*
the books that to Gianni I-have-1st sg given-pp sg masc

*sono* *questi*
are these
'The books I have given to Gianni are these ones'
[from Belletti & Rizzi (1988:337)]

(28) *I* *libri* *che a Gianni* *sono* *piaciuti* *sono* *questi*
the books that to Gianni are liked are these
'The books that Gianni liked are these ones'
[from Belletti & Rizzi (1988:337)]

The explanation that Belletti & Rizzi offer for the facts in (27) and (28) is that while the dative Benefactive in (27) lands in a TOP projection, which constitutes a barrier for wh-extraction, the dative Experiencer in (28) lands in a structural subject position, i.e. in an A-position, which does not constitute a barrier for wh-extraction. In general, structural subjects are not barriers for wh-extraction, as the following example shows:

(29) *I* *libri* *che Gianni mi* *ha*
the books that Gianni me-dat has-3rd sg

*dato* *sono* *questi*
given-pp sg masc are these
'The books that Gianni has given me are these ones'
[from Belletti & Rizzi (1988:337)]

Belletti & Rizzi conclude that the dative Experiencer in (27) is in a structural subject position. Further evidence that the dative Experiencer of psych verbs is a derived subject which lands in a structural subject position is provided by Cardinaletti (2004). Cardinaletti shows that in Aux-to-Comp and complementizer deletion constructions, which do not allow for left-dislocated items, a dative Experiencer is grammatical, while the dative argument of a transitive verb, which is necessarily left-dislocated, is not:

(30) *Essendo a* *Gianni piaciuto* *molto il* *regalo, ...*
being to Gianni liked much the gift
'The gift having been very well appreciated by Gianni,...'
[from Cardinaletti (2004: 11)]

(31) **Avendo(gli)* *io* *a* *Gianni dato* *questi* *libri, ...*
having-him-dat I-Nom to Gianni given these books
'After giving these books to Gianni, ...'
[from Cardinaletti (2004: 11)]

(32) *Credevo* *a* *Gianni* *piacessero*
I-believed-1st sg impf to Gianni liked-3rd pl subj

*queste* *storie*
these stories
'I believed that Gianni liked these stories'
[from Cardinaletti (2004: 11)]

(33) ??*Credevo* *a* *Gianni* *(gli)* *avesse*
I-believed-1st sg impf to Gianni to-him had-3rd sg subj

*dato* *questi* *libri*
given-pp these books
'I believed he had given these books to Gianni'
[from Cardinaletti (2004: 11)]

These examples show that the fronted dative in psych verb constructions is not in a left-dislocated position, but rather in a structural subject position, which I take for the moment to be Spec, TP. Italian psych verbs have thus been classified as having a dative Experiencer which lands in a structural subject position. They also exhibit a Nominative object.

Arguments in favor of the fact that the non-dative DP is in object position are once again provided by Belletti & Rizzi (1988). In sentences with *piacere*, both orders are possible: Experiencer-V-Theme and Theme-V-Experiencer, as (34) and (35) show:

(34) *A* *Gianni è sempre piaciuta* *la* *musica*
to Gianni is always liked the music
'Gianni has always liked music'

(35) *La musica* *è* *sempre* *piaciuta* *a* *Gianni*
the music is always liked to Gianni
'Gianni has always liked music'

This freedom concerns the *piacere* class specifically, and not psych verbs in general. According to Belletti & Rizzi, the fact that *piacere* verbs always select *be* as their auxiliary classifies them directly as unaccusatives. In (34)-(35), both the Theme *la musica* and the Experiencer *Gianni* are VP-internal (at D-structure), and may move to the structural subject position. The

Nominative DP in psych verb constructions is in object position. Given that Italian does not mark Case on nouns, the question is now how we can be sure that the object bears Nominative but not Accusative Case. The answer is once again provided by the pronominalization test in (36):

(36) *Essa/* *lei/* **la*
it- 3rd sg fem Nom / she-3rd sg fem Nom-acc / it-3rd sg fem acc

*è* *sempre piaciuta* *a* *Gianni*
is always liked to Gianni
'Gianni has always liked it'

(36) shows that Nominative pronouns may substitute for objects in psych verb constructions, but Accusative pronouns cannot. In sum, Italian psych verbs are QDCs, with a Nominative object and a dative Experiencer which occupies the Spec, TP position. Interestingly, these constructions do not show any person restriction on the object, which can be 1st, 2nd, or 3rd person, as (23), here repeated as (37), clearly shows:

(37) *Mi* *piaci* *tu/*
me-1st sg dat like-2nd sg you-2nd sg Nom/

*piace* *lui/* *piacete* *voi*
likes-3rd sg he 3rd sg Nom/ like-2nd pl you-2nd pl Nom
'I like you (sg)/like him/ like you (pl)'

(37) contrasts with Icelandic QDCs (see D'Alessandro 2002b, 2003). This contrast has also recently been observed for Spanish psych verbs by Rivero (2004). Spanish psych verbs of the *piacere/gustar* type do not show any person restriction on the object[21]:

(38) *Yo* *sé* *que a* *Ana* *le* *gustan*
I know that to Ana-dat her-dat cl like-3rd pl

*ellos*
they-3rd pl Nom
'I know that Ana likes them' [from Rivero (2004:495)]

(39) *Yo* *sé* *que a* *Ana* *le* *gustais*
I know that to Ana-dat her-dat cl like-2nd pl

*vosotros*
you-Nom 2nd pl
'I know that Ana likes you' [from Rivero (2004:495)]

The data just presented show that Italian psych verbs of the *piacere* class, together with Spanish psych verbs of the *gustar* class, exhibit a dative DP which occupies the structural subject position Spec, TP, and do not show any agreement restriction on the Nominative object, which can be 1st, 2nd, or 3rd person singular or plural. Icelandic QDCs, on the contrary, exhibit a dative DP that also occupies the structural subject position Spec, TP, but, differently from Italian psych verbs, they do show a person restriction on the Nominative object, which can only be 3rd person.

We wish to suggest that the clue to solving the problem of the presence/absence of the person restriction on the object may be provided by Italian ISCs, which do not exhibit a dative subject but still show a person restriction on the Nominative object. This means that the presence of a dative DP is not necessary for the restriction to hold. Instead, a multiple-agreement relation with the T head is necessary, according to the generalization proposed by Anagnostopoulou (2005). What creates the person restriction is not the dative DP, but rather the presence of *si* (in Italian), of *-st* (in Icelandic), and of *se* (in Spanish) (see also Rivero 2004 for a similar suggestion for Spanish).
In what follows, we will summarize the main analyses that have been proposed to account for the person restriction on the object in Icelandic, and try to extend them to the wider picture just outlined. Italian ISC data will be shown to confirm the validity of Anagnostopoulou's intuition, and will help identify some flaws in other theories.

## 3. Specialized *v* or structural constraint?

Several analyses have been put forward to account for the person restriction on the object in Icelandic quirky subject constructions. The most relevant proposals rotate around two axes: multiple Agree and specialized *v*. According to the first line of reasoning, a multiple agreement relation is established between the T head and the two DPs involved in the derivation:

the Nominative object and the dative subject. The second line of reasoning postulates instead the existence of a specialized *v*, which licenses the quirky subject and assigns Nominative to the other argument. In this section, we outline the two approaches and show how the facts outlined in the previous section provide evidence for the multiple agreement approach. The specialized *v* approach, on the other hand, may not be extended to explain the Italian facts.

### 3.1. Multiple agreement

The first systematic attempt to provide an explanation of the person restriction in Icelandic is Sigurðsson (1996). Sigurðsson accounts for the person restriction in Icelandic QDCs by relying on a structural constraint. He starts from the assumption that a head and its specifier cannot be both specified for, i.e. that there can be either agreement features on the head or Case features on the specifier of a projection. In other words, it is not possible to have valued features both on the head and on the specifier of one projection. The quirky dative DP in Icelandic moves to the specifier of the AgrSP projection, which is the position where the subject usually lands. Thus, the specifier of the AgrS projection is occupied by a DP that is specified for Case (i.e. with a valued Case feature). This means that the AgrS head cannot bear valued agreement features, because it already holds a valued specifier. Hence, AgrS, which assigns Nominative, needs to be underspecified for agreement. Underspecification for agreement means in particular lack of the person feature, and therefore agreement with a DP which has no person or is marked with 3rd person. 3rd person has in fact been considered, since Benveniste (1966), as no person (see Roberts 2002a,b for 3rd person marking in English as a 'lack of person'-marker). Sigurðsson's (1996) analysis relies on the idea that a stipulated structural constraint is responsible for the person restriction to arise.

A slightly different proposal is put forward by Taraldsen (1995). According to Taraldsen, datives have person features which permit them to enter checking relations with functional heads. In particular, the dative Experiencer agrees with the T head, but this agreement does not result in verbal inflection because verbs in Icelandic agree for both person and number syncretically. Taraldsen argues that the number of the verb is not checked against the dative DP, but rather against the Nominative DP. Since 1st and 2nd person do not combine with number, they are not possible

specifications for the verbal ending. As a result, the verb shows a 3rd person inflectional ending.

The view according to which the dative DP has a central role in causing the person restriction on the object is shared both by Boeckx (1998) and Anagnostopoulou (2005), who propose, in different terms, that a multiple-agreement relation is established between the dative Experiencer and the T head and between the DP object and the T head. In other words, the T head agrees both with the Experiencer and with the Theme DP, which receives Case through this agreement relation. Following Taraldsen (1995), both Anagnostopoulou and Boeckx assume that datives have person features which permit them to enter checking against functional heads. In QDCs, the dative Experiencer bears a person feature due to its 'intrinsic animacy' (Anagnostopoulou 2005, Ormazabal & Romero 2002 among others). However, according to Anagnostopoulou, it lacks number. The dative Experiencer is structurally higher than the Theme, and therefore agrees first with the T head. This agreement is however defective, because the dative DP lacks number. Assuming that the values 1st and 2nd must combine with the values [singular] or [plural], it is not possible to have a 1st or 2nd person value on the verb as a result of agreement with the dative DP, because this would also require number agreement. Under the assumption that 1st and 2nd person and reflexive pronouns are [+person] pronouns [Bonet (1991, 1994), Taraldsen (1994), Kayne (2000)], while 3rd person pronouns are 'no person' pronouns [Benveniste (1966), Postal (1966), Bonet (1991), Taraldsen (1995), Kayne (2000) among others], Taraldsen (1995), Anagnostopoulou (2003) and Boeckx (1998) conclude that only a 3rd person pronoun or a DP may agree with the T head. In other words, a double agreement relation with T is established: dative argument-T and Nominative object-T. Dative-T agreement provides the 3rd person specification, while Nominative object-T agreement provides the number specification.

The analysis that we wish to put forward for the person restriction on the Nominative object in ISCs with verb-object agreement follows the same lines as the analyses outlined above. We propose a parallel mechanism for the valuation of the person and number features on the verb, which also accounts for the person restriction. It will be shown, however, that no dative DP is necessary in order for multiple agreement to obtain. Specifically, the following descriptive generalization is proposed:

(40) Whenever multiple agreement holds, a feature restriction may obtain.

This generalization accounts both for the facts outlined in this chapter and for the Icelandic facts. Moreover, it includes the Person Case Constraint, which was first formulated by Bonet (1991), and which is given here as (41):

(41) **The Person-Case Constraint *Strong version*** In a combination of a weak direct object and an indirect object [clitic, agreement marker or weak pronoun], the direct object has to be 3rd person. [from Bonet (1991:182)]

This generalization is exemplified in the following Greek examples [from Anagnostopoulou (2005:201)]:

(42) *Tha* *mu* *to* *stilune*
fut cl-1st sg gen cl-3rd sg neut Acc send-3rd pl
'They will send it to me'

(43) *Tha* *su* *ton* *stilune*
fut cl-2nd sg gen cl-3rd sg masc Acc send-3rd pl
'They will send him to you'

(44) **Tha* *su* *me* *sistisune*
fut cl-2nd sg gen cl-1st sg Acc introduce-3rd pl
'They will introduce me to you'

(45) **Tha* *tu* *se* *stilune*
fut cl-3rd sg masc gen cl-2nd sg Acc send-3rd pl
'They will send you to him'

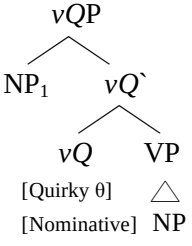
Examples (44) and (45) are ill-formed because of the co-occurrence of a genitive with a 1st and 2nd person Accusative clitic respectively. This phenomenon is quite widespread crosslinguistically, and involves weak elements only. Anagnostopoulou (2003, 2005) draws a parallel between the PCC and the person restriction on the Nominative object in Icelandic quirky dative constructions. We will not consider the PCC here, since it only involves combinations of weak elements, and therefore it is not directly relevant for the analysis we are developing. We will return to the multiple agreement and its development in the next section. For the moment, let us concentrate on a second analysis that has recently been

proposed by Boeckx (2003) to account for the person restriction in Icelandic. Boeckx proposes the existence of a specialized *v* head, which licenses the dative Experiencer and assigns Nominative case to the object of a quirky dative construction. Boeckx's analysis is presented in the following section.

### 3.2. Specialized *v*

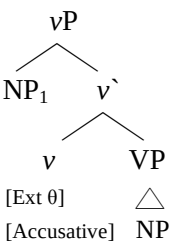
A recent analysis proposed by Boeckx (2003) reverses the point of view for the person restriction phenomenon. According to Boeckx, neither the dative nor the Nominative DP in Icelandic QDCs enter agreement with T. Nominative Case is assigned to the DP object by a specialized *v* which is only present in a derivation if an indirect θ-role is to be assigned (see Alexiadou 2002 for a related proposal). This specialized *v*Q, i.e. 'quirky *v*', is endowed with the option of assigning Nominative case only if it also assigns an 'indirect' θ-role to the quirky case NP in its specifier. In other words, whenever a θ-role like Benefactive, Experiencer, Goal and the like is assigned to an NP in the specifier of this dedicated *v*Q, such a head is also able to assign Nominative. Boeckx states that *v*Q sits between VP and *v*P, which introduces the external argument.[22] Quirky elements are excluded from the specifier of *v*P, which only hosts DPs with an Agent role. The structure proposed by Boeckx for Icelandic QDCs is reproduced in (46):

(46) [from Boeckx (2003:7)]




A transitive structure, with an Agent θ-role, is represented in (47):

(47) [from Boeckx (2003:7)]




The structures above underline the parallelism between Accusative assignment by *v*, and Nominative assignment by *v*Q.

Boeckx's analysis rejects the idea of a multiple agreement relation, and builds on the intuition that Nominative Case may also be assigned by a head different from T (see also Alexiadou 2003). The person restriction on the object obtains because of a general constraint which languages exhibit, namely that person agreement does not hold with postverbal DPs in general. Thus, the person restriction has nothing to do with T, but is simply a result of the application of a general constraint on languages.

According to Boeckx (2003), thus, any Quirky-Case marked element is introduced in the specifier of a specialized *v*. This would entail, for Italian psych verbs, postulating that one of the two arguments is merged in the specifier of this external projection. If any Experiencer DP is merged in the specifier of *v*Q, the Experiencer of a verb like *piacere* must also be merged there. If this is the case, Boeckx's analysis predicts a person restriction on the object, which is not present, as revealed by the data in (23), here repeated as (48).

(48) *Mi* *piaci* *tu*/
me-1st sg dat like-2nd sg you-2nd sg Nom/

*piace* *lui/* *piacete* *voi*
likes-3rd sg he 3rd sg Nom/ like-2nd pl you-2nd pl Nom
'I like you (sg)/like him/ like you (pl)'

In general, Boeckx's proposal cannot be accepted as it is, as he states that the person restriction on the object is due to a general constraint which prevents person agreement with postverbal elements, or elements that remain in the VP (such as past participle for instance). This generalization does not hold for Italian psych verbs, although it is a general property of

Italian. The Italian past participle, for example, does reflect the constraint just mentioned, as shown in (49):

(49) *Voi* *siete* *arrivati*
you-2nd pl are-2nd pl arrived-pp pl masc
'You have arrived'

The past participle in (49) agrees with the subject in gender and number, but not in person. There is no person ending for the past participle. In general, agreement inside the VP is limited to number (and maybe gender), but it systematically excludes person. This is taken by Boeckx as evidence for the fact that the Nominative DP in QDCs, which stays inside the VP, may not agree for person, as person agreement is not licit inside the VP.

This constraint is, however, not universal, as the facts converning Italian psych verbs show. In (50), the Nominative object agrees with the verb both in person and number, and does not undergo the person restriction constraint:

(50) *Gli* *piaccio* *io*
him-dat 3rd sg masc like-1st sg I-Nom 1st sg
'He likes me'

For the analysis of (50), let us try to follow Boeckx's proposal, assuming that the dative Experiencer is merged in the specifier of *v*Q, and that it gets the Experiencer θ-role there.[23] The DP object stays *in situ*, and from there it agrees with the *v*Q head, which assigns Nominative Case to it. This kind of low agreement, however, should be restricted to number and exclude person, according to the general requirement which languages including Italian would impose to low agreement. However, in (50) person agreement does take place. This means that no low agreement could possibly have occurred, contrary to what Boeckx claims. The fact that there is person agreement shows that the T head is involved. Thus, Boeckx's idea of a specialized *v*Q makes the wrong prediction regarding Italian verbs of the *piacere* class.

In the next section, we shall take a closer look at ISCs with verb-object agreement, and we shall see how a multiple-agreement approach explains both the person restriction on the object in ISCs and the lack of person restriction on psych verbs. The claim will be made that impersonal *si* is

responsible for the person restriction on ISCs, and that the lack of impersonal *si* corresponds to a lack of person restriction.

## 4. The person restriction on ISCs: a multiple-Agree analysis

As discussed in the previous section, Taraldsen (1995), Boeckx (2000) and Anagnostopoulou (2003, 2005) have proposed that in Icelandic QDCs a double agreement relation is established between the dative DP and the T head on the one hand and between the Nominative object DP and the T head on the other. We can build on this proposal reversing the point of view, by claiming that whenever multiple agreement with the T head is at work, a person restriction on the lower argument takes place. Another proposal has been recently put forward by Luis Lopez (to appear) for Spanish *se*, which is very much along the lines of multiple agreement. We will briefly summarize Lopez's proposal, and then turn on to examine the multiple agreement analyses.

### 4.1. Complex dependencies

According to Lopez, the person restriction arises when T, the external argument (the quirky subject in Icelandic or *se* in Spanish) and the internal argument are all bound up in one *complex dependency*. Lopez starts from the assumption that a *Full sharing* principle is always active in Agree relations: if two features can agree, then they must. Two features can agree when at least one of them is unvalued and they are in a c-command relation. In this case, Match is possible. Lopez then proposes that when two unvalued features are in a possible Match/Agree configuration, they will never be able to get different values once valued, because of Full sharing, even if neither of the two can value the other. This means that once one of the two unvalued features gets valued through Agree, the other will receive the same value. A dependency formed by shared unvalued features is defined as an *open dependency*.

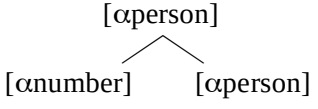
Now, if a probe enters an Agree relation with an open dependency, we are in the presence of a *complex dependency*. If the open dependency is in a possible Agree relation, it becomes the (complex) goal. The existence of complex dependencies, together with Full sharing, entails that there cannot be a difference in the valuation of the features on the elements that

constitute the complex goal. Moreover, given the definition of a complex dependency, it follows that Case features can also probe, and maximal categories as well (giving rise to adjectival/nominal agreement, for instance). According to Lopez, impersonal *se* and quirky subject constructions have the following *v* structure:

(51) $[_{vP}$ K *v* $[_{VP}$ *v* OB ]]

where K is the quirky subject or *se*, and *v* is defective. *v*P is the complex dependency which constitutes the goal of T. When T probes this complex, T, K and the object end up having the same person and the same number. Since K is no person and no number (3rd singular is equivalent to no person and no number), the object also needs to be no person and no number. Thus, a 3rd person object is required. As for the number, Lopez refers to the *Minimal compliance* principle proposed by Richards (1998), according to which "For any dependency D that obeys constraint C, any elements that are relevant for determining whether D obeys C can be ignored for the rest of the derivation for purposes of determining whether any other dependency D' obeys C." Given a feature geometry like the one proposed by Taraldsen (1995) and Anagnostopoulou (2003):

(52)




from the Minimal Compliance it follows that it is important to have full sharing for the person feature, not for number. Therefore, the object number is free to be singular or plural, and does not need to be coincident with the number of the quirky element or *se*, which is singular.

Lopez's approach has the advantage of capturing the similarities between all those constructions which present a person restriction on the object. However, many aspects of his proposal remain unclear. First, although we share the idea of *se* being an external argument, we do not share the idea that it is no person (at least impersonal *si*). We also have argued for a non- defective *v* in transitive ISCs. Moreover, we would not like to postulate rules on feature valuation such as the Minimal compliance rule adopted by Lopez. The existence of such a rule is not in line with the minimalist assumptions made here. We do not wish to go any further in this

direction, and turn instead to the multiple Agree proposals that have been put forward to explain the person restriction.

### 4.2. Is dative necessary?

One of the most influential analyses of the person restriction in Spanish *se* constructions is Rivero (2004). Rivero shows how the presence of a dative is necessary but not sufficient to determine the person restriction. She states that a person restriction takes place only when an accusative reflexive pronoun is present in the clause besides the dative.

Rivero examines two kinds of quirky subject constructions in Spanish: a *se* construction, which we will call an *olvidarse* construction, with a dative logical subject, a Nominative logical object and with verb-object agreement as in (53), and a psych verb construction, which we will call a *gustar*-kind construction, where a dative Experiencer is present in the clause (54). The *gustar* construction resembles the psych verb construction exemplified in (22) and (23) for Italian.

(53) *A Ana* *se* *le* *olvidaron* *las llaves*
Ana-dat 3rd ps refl dat forgot-3rd pl the keys

*de Pedro*
of Pedro
'Ana forgot Pedro's keys.' [from Rivero (2004:496)]

(54) *Yo* *sé* *que* *a Ana* *le* *gustan*
I know that Ana-dat dat like-3rd pl

*ellos*
they-Nom
'I know that Ana likes them' [from Rivero (2004:495)]

Interestingly, the *olvidarse* constructions show a person restriction on the Nominative object:

(55) *A Ana* *se* *le* *olvidaron* *{esos chicos/*
Ana-dat 3rd ps refl dat forgot-3rd pl those guys/

*ellos}*
they- Nom
'Ana forgot {those guys/them}'

(56) **A Ana nos* *le* *olvidamos* *nosotros*
Ana-dat 1st pl refl dat forgot-1st pl we-Nom

(57) **A Ana os* *le* *olvidasteis* *vosotros*
Ana-dat 2nd pl refl dat forgot-2nd pl you- pl Nom
[from Rivero (2004:495-496)]

Conversely, the *gustar* constructions do not exhibit a person restriction on the object:

(58) *Yo sé* *que a Ana* *le* *gustais* *vosotros*
I know that Ana-dat dat like-2nd pl you-Nom pl
'I know that Ana likes you.'

(59) *Yo sé* *que a Ana* *le* *gustamos* *nosotros*
I know that Ana-dat dat like-1st pl we-Nom
'I know that Ana likes us.'

Rivero suggests that in the *olvidarse* constructions the dative subject and the Nominative object seem to enter into an agreement relation with the person on the inflectional head. This intuition is at the base of the various analyses which attribute the person restriction to multiple agreement with T, but Rivero does not pursue it. Instead, starting from the assumption that *se* in *olvidarse* constructions is Accusative and that Spanish reflexives in general are person forms, Rivero concludes that the person restriction in *olvidarse* constructions is due to a violation of the PCC for weak forms, as repeated in (60):

(60) **The Person-Case Constraint *Weak version*** [from Bonet (1994:36)]
If DAT then ACC-3rd.

This version of the PCC states that in the presence of a dative clitic, the Accusative clitic must be 3rd person. In *gustar* constructions, this constraint is vacuously obeyed, given that there is no Accusative clitic in the sentence. In *olvidarse* constructions, however, we do have an Accusative clitic, *se*, which must be 3rd person. This means that any other form of this clitic, such as the ones in (56) and (57) is ruled out. Rivero does not elaborate on the technicalities of the proposal, but does suggest a multiple agreement relation with T, as stated above. Moreover, along the lines of all the other proposals that we are examining here, Rivero proposes that *v* is defective, and therefore cannot assign Accusative to the object. As shown in chapter 2, we do not share this assumption.

Rivero's proposal is very satisfactory for Spanish. However, as we will see in the next sections, Italian ISCs cannot be claimed to exhibit a dative. Therefore, we cannot extend Rivero's analysis to Italian ISCs.

In this chapter, we will retain Rivero's intuition on multiple agreement with T, but we will show that the PCC plays no role whasoever in Italian ISCs. In fact, it will be shown that the presence of a dative-indirect object DP is not necessary for the person restriction to hold, but the person restriction may arise even when two arguments, i.e. the subject and the object DP, enter agreement with T. Specifically, if the presence of a dative indirect object were necessary, the person restriction would not be able to apply in Italian ISCs with V-O agreement. Italian ISCs, in fact, do not exhibit a dative indirect object, as will be shown in the next section.

### 4.3. Impersonal *si* is not a quirky dative

As we have seen, it has been noted that some constructions involving *se* in Spanish resemble Icelandic QDCs. Therefore, one of the potentially available options for analyzing the person restriction on ISCs in Italian is to consider ISCs as QDCs. In fact, Italian ISCs with verb-object agreement and Icelandic QDCs do share many features. Moreover, since many analyses attribute the person restriction to the presence of a dative, like Rivero's for example, we need to examine whether dative also plays a central role in Italian ISCs, and if these constructions display a dative at all. In this section, it will be shown that although many similarities are evident between Italian ISCs and Icelandic QDCs, the former cannot be considered quirky dative constructions because neither *si* nor the other argument is dative. Therefore, the person restriction also holds if the dative (i.e. the

indirect object) is absent. The conclusion that is drawn is that a more general principle is at work, which regulates not only the person restriction on the object in quirky dative constructions, but also multiple agreement in general. The next step will be to claim that the dative Experiencer is not responsible for the person restriction in Icelandic. This issue will be addressed in the next section.

On a first comparison between ISCs with V-O agreement and Icelandic QDCs many similarities arise, as shown in D'Alessandro (2002c, 2003). Both Icelandic QDCs and Italian ISCs present an object which is θ-marked as Theme and bears Nominative case, as shown in the introduction, and here exemplified again in (61) and (62):

(61) *Henni* *leiddust* *strákarnir/* *þeir*
her-dat bored-3rd (2nd) pl the boys-pl Nom/ they-3rd pl Nom
'She found the boys/them boring' [from Sigursson (1996:1)]

(62) *Si leggono* *i* *libri*
si read-3rd pl the-pl masc books-pl masc Nom
'People read books'

That *i libri* is Nominative is shown by the fact that it cannot be replaced by an Accusative marked pronoun, as shown in (63), nor by a dative marked pronoun, as in (64).

(63) **Li* *si leggono*
them-pl masc acc si read-3rd pl

(64) **Gli* *si leggono*
them-pl masc dat si read-3rd pl

The only grammatical form is in (65), which contains the Nominative pronoun *essi*:

(65) *Essi* *si leggono*
they-3rd pl Nom/Acc si read-3rd pl
'People read them'

A purely Nominative 3rd plural pronoun in modern Standard Italian does not exist. The old fashioned (or high register) form *essi* in (65) is however

Nominative, and is perfectly grammatical. Therefore, we can conclude that *i libri* in (62) is Nominative.

Another reason for us to believe that *i libri* is Nominative in (62) is that in Italian, like in many other languages, Nominative Case indicates agreement with the verb. In other words, whenever the finite verb agrees with a DP, the DP is assigned Nominative. The verb in both (61) and (62) shows agreement with the Nominative DP.

Both Icelandic QDCs and Italian ISCs, thus, exhibit a Nominative object which agrees with the verb, and both these constructions present a person restriction on the object, which can only be 3rd person. This striking similarity between the two constructions might lead to the conclusion that they are identical. Icelandic QDCs present another DP, in addition to the Nominative DP, which is marked for dative. If the two constructions were identical, this dative should have a corresponding form in Italian ISCs. The only DP available in Italian ISCs is *si*. Therefore, *si* should be dative for a complete parallelism to hold.

Since impersonal *si* does not show morphological case marking, one can easily postulate that it is marked for dative. There are however some facts which show quite straightforwardly that this is not the case.

The most striking counterexample to analyzing *si* as a dative is found in Rumanian. The Rumanian counterpart of Italian *si*, *se*, is marked for Case. In Rumanian, *se* may be marked both for dative and for Accusative. Interestingly, as we have already seen in chapter 2, Rumanian impersonal *se* is marked for Accusative (see Dobrovie-Sorin 1998 among others):

| | | | | |
|---|---|---|---|---|
| (66) | *În Italia* | *se* | *citesc* | *cărți* |
| | in Italy | si-Acc | read 3rd pl | books-fem pl Nom |

*bune*
good-fem pl
'In Italy people read good books'

The construction in (66) is wholly identical to an Italian ISC with V-O agreement, as shown by Dobrovie Sorin (1999). If impersonal *se* were dative, it should bear double case: Accusative and dative. This would be an unprecedented situation. Therefore, we are forced to conclude that SE-*si* is not dative marked.

### *4.3.1.* Si *is not an indirect object*

Another issue that is worth considering is the θ-grid of Icelandic QDCs as compared to that of Italian ISCs. Quirky dative constructions in Icelandic require a quirky DP that bears an 'indirect' θ-role, such as Experiencer (most of the time) or Benefactive, or Goal. This kind of θ-role constitutes the starting point for Boeckx's (2003) analysis, as we saw. An indirect θ-role is not present in Italian ISCs, however. If we consider (62) again, we see that *si* can in no way be interpreted as an Experiencer. *Si* is indeed an Agent. The fact that it is an Agent is independently proved by the fact that (62) resists the insertion of a *by*-phrase, as exemplified in (67)[24]:

| | | | | | |
|---|---|---|---|---|---|
| (67) | **Si* | *leggono* | *i* | *libri* | *da Gianni* |
| | si | read-3rd pl | | the-pl masc | books-pl masc by Gianni |

*By*-phrases are usually assumed to introduce an Agent. If a *by*-phrase cannot be inserted, this means that an Agent is already present in the clause. Thus, since the only possible Agent in (67) is *si*, we can conclude that is not an Experiencer (nor a Benefactive, nor a Goal etc.).

The fact that *si* is not dative and that it is not an Experiencer clearly indicates that Icelandic QDCs and Italian ISCs are two different constructions. Italian *si* may be an Experiencer, like in (68), but it does not have to be so, whereas Icelandic QDCs obligatorily require an oblique θ-role.

| | | |
|---|---|---|
| (68) | *Si è spesso* | *tristi* |
| | si is often | sad-pl |
| | 'People are often sad' | |

If, as seems to be the case, the person restriction is attributable to a unique cause, then this cause cannot be the dative DP nor the Experiencer θ-role.

## 4.4. Multiple Agree and the person restriction in Italian ISCs

In the previous section, it was shown that Italian ISCs are not QDCs. In particular, they do not contain a dative Experiencer. Nevertheless, as shown in (1)–(6), here repeated as (69)-(74), they present a person restriction on the object, which can only be 3rd person.

(69) *In televisione* *si vede* *spesso* *Maria/* *lui*
in television si sees-3rd sg often Maria him-3rd sg
'One often sees Maria on the tv'

(70) *In televisione* *si* *vedono* *spesso* *loro*
in television si see-3rd pl often they-3rd pl Nom
'One often sees them on the tv'

(71) **In televisione* *si vedo* *spesso* *io*
in television si see-1st sg often I-1st sg Nom

(72) **In televisione* *si vedi* *spesso* *tu*
in television si see-2nd sg often you-2nd sg Nom

(73) **In televisione* *si vediamo* *spesso* *noi*
in television si see-1st pl often we-1st pl Nom

(74) **In televisione* *si vedete* *spesso* *voi*
in television si see-2nd pl often you-2nd pl Nom

In section 3.2., we saw that an analysis which postulates the presence of a specialized *v* would predict that the person restriction should also hold with Italian psych-verbs of the *piacere* class. This is not the case, as shown in section 2.3. In this section, we shall extend Anagnostopoulou's (2005) analysis to account for the data in (69)-(74). In particular, we shall propose that the person restriction on the object takes place whenever a Multiple Agree relation with the T head arises, quite independently of the nature of the DP which enters this Agree. Thus, a dative DP is not necessary in order for the person restriction to arise.

A terminological clarification is in order before going on with the analysis. We have seen that Agree is the process that values unvalued features, according to the mechanism proposed by Chomsky (2004: 115-116): 'The simplest version of Agree would be based on the free relation Match: identity of features. [...] An uninterpretable feature F must be distinguished somehow in LEX from interpretable features. The simplest way, introducing no new devices, is to enter F without value: for example, [uNumber]. That is particularly natural because the value is redundant, determined by Agree. Therefore, Match is nondistinctness rather than

identity.' Thus, features may enter a derivation unvalued, and receive their value through Agree. However, as we have seen in chapter 2, it may happen that a Goal is not φ-complete, or that it is φ-complete but with some unvalued features, and that therefore an element may probe for more than one Goal, in order to get all its φ-features valued. In this case, Multiple Agree takes place. We therefore use the expression 'Multiple Agree' to indicate the process by which two DPs enter an Agree relation with the same functional head. In order to avoid a feature mismatch on the unvalued φ-set, and capturing the idea of the necessity of non-distinct features for Agree as proposed by Chomsky (2004), Anagnostopoulou proposes the following condition on Multiple Agree:

(75) Multiple Agree can only take place under non-conflicting feature specification of the agreement element
[from Anagnostopoulou (2005:20)]

The condition on Multiple Agree prevents two valued feature sets from entering Match with one unvalued feature if they do not hold the same value.[25] More specifically, Anagnostopoulou rightly observes that 'the ban against conflicting feature specifications of DPs in contexts of Multiple Agree is quite natural in a theory like the one advanced in Chomsky (2001, 2004), where checking leads to valuing of uninterpretable φ-features of T and *v*. Two DPs that check and value the φ-features of T and *v* cannot have conflicting feature specifications as this will lead to contradictory values for the features of T and *v*'[from Anagnostopoulou (2005)]. This condition is quite intuitively met in converging Agree operations, since if a feature were attributed two distinct values, it would not be interpretable at the interface.

The person restriction in Italian ISCs with V-O agreement can be explained quite straightforwardly on the basis of a Multiple Agree approach. Let us consider an ISC with V-O agreement like the one in (76):

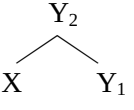
(76) *Si leggono* *i* *libri*
si read-3rd pl the books-pl masc
'People read books'

The DP object *i libri* has the following valued φ-features: 3rd person, masculine and singular. As shown in detail in chapter 2, the DP object *i*

*libri* enters Agree with the T head, thus receiving Nominative case. More precisely, the derivation of (76) runs as follows: The DP object *i libri* is merged with the *res* head, and there it gets the internal θ-role. It needs to get its Case feature valued. Impersonal *si* is merged in Spec, *res*P. *v* is merged with *res*P. *v* needs to get its φ-features valued, and therefore it looks down for a DP with which it Matches. It finds *si*. Recall that *si* has a 3rd person feature, but unvalued number. The features on *si* fully Match with the features on *v*. Therefore, *si* values *v* as 3rd person and is valued as Accusative (by full Match). However, *si* cannot value all the unvalued features of *v*, since its number is unvalued. Therefore, *v* searches lower down until it finds the DP which has number and can value its unvalued number feature. This way, *v* gets its number feature valued according to the number of the object (plural in the case of *gli spaghetti*). T is merged. T, like *v*, also enters the derivation with a full set of unvalued φ-features, which need to be valued. Therefore, T looks down for a φ-set that can value its unvalued φ-set. It fully Matches with *si*, which can only value its person. However, *si* is an inactive Goal, since its features have undergone Match and its Case feature has been valued. Therefore T keeps 'searching' until it meets the DP object, whose φ-set is complete.

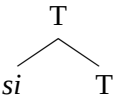
Despite the fact that *si* is inactive, it is however still visible to T. We wish to claim that this is due to its clitic nature. *Si* cliticizes on T, and therefore it is 'part' of the T head. This intuition may be captured by adopting a recent proposal on cliticization put forward by Roberts (2006). According to Roberts, clitic movement is an instantiation of narrow-syntactic movement of a minimal category (i.e. syntactic head movement). Clitics incorporate to functional heads, giving rise to the following structure:

(77)




$Y_2$ can be minimal if X and $Y_1$ have non-distinct labels. This means that, in the case in which X and $Y_1$ have the same label, head incorporation is possible. If X is a clitic, a structure like (77) is possible, since clitics are defective and as such they do not have a label which is distinct from their host. Clitics are in fact bundles of φ-features, which correspond exactly to the unvalued φ-features of the functional head that hosts them. Adopting Roberts' proposal, the structure of T with *si* is the following[26]:

(78)

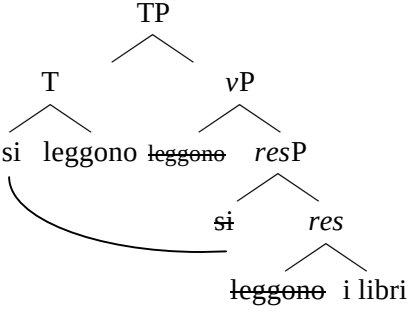



Cliticization, according to Roberts, has the same effect as Agree, in that the features of the clitic are copied into the feature matrix of the host. Agree is in fact considered by Roberts as follows:

(79) Given a well-formed Agree relation of which α and β are the terms (i.e. Probe or Goal) where α's feature matrix contains, [$Att_i$:__] and β's contains [$Att_i$: val], for some feature $Att_i$, copy val into __ in α's feature matrix. [from Roberts (2006: 56)]

This means that *si* is still visible by T not by virtue of Agree, but by virtue of being incorporated into T. The configuration in (78) entails that *si*-cliticization values the person feature on T as 3rd.[27] However, since *si* is only 3rd person, T still needs to have its number feature valued, and therefore T probes for the object DP. Thus, a sort of Multiple Match relation is established between the T head and *si* on the one hand, and the T head and the DP object *i libri* on the other.

(80)




The φ-features on *si* are 3rd person, unvalued number (and unvalued gender). The φ-features on the DP *i libri* are 3rd person, masculine and plural. The person feature is valued on T by impersonal *si*, while the number feature is valued by the DP object. No feature mismatch takes place, since the object is also 3rd person, so the features of the DP object

and the complex T head are non distinct, and the verb has its φ-features valued as 3rd person plural.

The question is now why a 1st or 2nd person object may not enter the same Agree relation and receive Nominative case from T. The answer is quite straightforward: when Multiple Match takes place between the T head and *si* on the one hand, and the T head and the DP object on the other, a person feature mismatch arises on the T head. The person feature on T is simultaneously valued as 1st or 2nd AND 3rd. This violates the condition on Multiple Agree, the non-distinctness requirement.

### *4.4.1. The cliticization of* si *on T*

Following the pre-cartographic tradition, we have so far assumed that *si* cliticizes on the T head. In the Government and Binding tradition, this was a widely accepted assumption (see Cinque 1988, Dobrovie-Sorin 1998 among others). The reason underlying this assumption is that *si* is the clitic that appears closer to the verb than any other clitic. (81) presents a clitic cluster including an impersonal *si*:

(81) *Glielo* *si è* *detto*
him-cl masc sg dat-it cl masc sg Acc si is-3rd sg said-pp masc sg
'Somebody said it to him'

In (81), impersonal *si* follows the other clitics. This led most linguists to believe that *si* cliticized directly onto the T head. However, Manzini & Savoia (2002, 2004) have shown that *si* occupies different slots in different Italian dialects. For example, *si* may follow *ci* ('to him') in Sicilian:

(82) *Si cci* *parla*
si him-cl 3rd sg talks-3rd sg
'People (may) talk to him' [Laura Sgarioto, p.c.]

Even Italian offers an exception to the generalization according to which is adjacent to the verb: the clitic *ne*, as shown in (83).

(83) *Se* *ne* *vedono*
si of-them cl see-3rd pl
'People see some of them'

The fact that *si* is not adjacent to the verb in (83) can be explained in two ways: either one presupposes the existence of special slots for clitics (see Poletto 2000 for such a proposal for subject clitics), or one proposes that *ne* incorporates onto the verb in the VP. The former does not exclude the latter, in that one considers the landing position and the other the merge site. As shown in chapter 1, *ne* is an object clitic. This means that we can assume that it incorporates into *v* (see Belletti & Rizzi 1981 and Cardinaletti & Giusti 1992 for an analysis of *ne* cliticization). After incorporation, *ne* becomes invisible for person checking. The fact that *ne* surfaces adjacent to T does not mean that *si* cannot incorporate on T. Both *ne* and *si* have a 3rd person feature, and therefore there is no feature mismatch on the complex T head. Moreover, *si* is an external argument, and therefore T is its natural landing position.

To summarize, in this section an analysis of the person restriction in ISCs with V-O agreement has been proposed according to which *si* is a T clitic. This means that *si* incorporates on the T head, resulting in T bearing a 3rd person feature. Moreover, since Multiple Agree takes place between T and *si* and T and the DP object, a restriction arises on the object person feature, which can only be 3rd person in order to avoid the mismatch of the values of T's person. We have also seen that, despite their similarities, Italian ISCs are not equivalent to Icelandic QDCs. The fact that the person restriction arises even in Italian ISCs, which lack a dative Experiencer, indicates that the dative Experiencer is not responsible for the person restriction.

## 5. Icelandic quirky dative constructions

In the previous section, it was argued that impersonal *si* was responsible for the person restriction in Italian ISCs with V-O agreement. In particular, it was shown that a quirky dative subject is not necessary for this restriction to take place. In this section, we wish to show that some of the Icelandic facts may also be explained without needing to postulate an agreement relation between the dative subject and the T head. It will be argued that the

*-st* suffix is responsible for the person restriction in one class of Icelandic QDCs.

Let us consider again the Icelandic data in (61), here repeated as (84):

(84) *Henni* *leiddust* *strákarnir/* *þeir*
her-dat bored-3rd (2nd) pl the boys-pl Nom/ they3rd pl Nom
'She found the boys/them boring' [from Sigurðsson (1996:1)]

As shown in section 2.2., a Nominative object in Icelandic cannot be 1st or 2nd person if a dative subject is present in the clause. This is the case of (84), where a dative subject is present in the clause. The object is marked as Nominative and it can only be 3rd person. A 1st or 2nd person Nominative object is banned, as (85) exemplifies:

(85) **Henni leiddust* *þið /* *leiddumst*
her-dat bored-2nd (-3rd) pl you-pl Nom/ bored-1st pl

*við*
we-pl Nom
'She found you/ us boring' [from Sigurðsson(1996:28)]

As discussed in section 3.1., these examples have been analyzed by Taraldsen (1995), Boeckx (2000), and Anagnostopoulou (2003) as involving a Multiple Agree relation between the dative subject and the T head on the one hand, and the Nominative object and the T head on the other. However, as Boeckx (2003) argues, the fact that the quirky dative Agrees with T is not independently supported by other data. In particular, he shows that while quirky elements morphologically agree in number, they never seem to agree in person with other elements in the clause. In support of his claim, Boeckx presents the following sentences:

(86) *Strákunum* *leiddist* *öllum /*
the-boys dat pl masc bored-3rd sg all-dat pl masc/

**allir* *í* *skóla*
all-Nom pl masc in school
'The boys were all bored in school' [from Boeckx (2003:4)]

(87) *Strákarnir* *sýndu* *kennaranum* *óvirðingu*
the-boys Nom pl masc showed teacher-dat sg masc disrespect

*drukknum*
drunk-dat masc sg
'The boys showed the teacher disrespect (when he was) drunk'
[from Boeckx (2003:4)]

In (86), the quirky element *strákunum* shows agreement in number, but not in person, with the floated quantifier *öllum*. In (87), the quirky element *kennaranum* shows agreement in number, but not in person, with the adjective 'drunk'. Boeckx concludes that quirky datives do not agree in person with the T head, and that the person restriction in not due to Multiple Agree. Boeckx's (2003) analysis has already been discussed in section 3.2. We can capitalize on Boeckx's observation and claim that the quirky dative does not agree with the T head. However, there is Multiple Agree going on in Icelandic QDCs. More precisely, there is an element which values or 'saturates' the person feature on the verb: the suffix *-st*.

Anderson (1990), Sigurðsson (1996), Taraldsen (1994, 1995), and Jónsson (1998) have classified all verbs that may take a dative subject. The majority of these verbs ends in *-st*. The affix *-st* is historically an affixed reflexive pronoun. The form *-st* in fact derives from the Old Icelandic reflexive pronoun *sik*.

Taraldsen (1994) argues that *–st* originates as a syntactically autonomous head in the AgrS position. If we think about what has been said so far about *si*, what is striking is that the two elements *si* and *-st* look very similar. The *-st* affix is historically a reflexive pronoun, just like *si*. Moreover, whenever impersonal *si* is in a sentence together with a Nominative object, a person restriction arises. Whenever an *-st* verb is in a sentence with a Nominative object a person restriction arises. We are led to conclude that the *-st* affix performs the same person valuation effect on T that *si* performs. More specifically, we propose that this affix carries a valued syntactic 3rd person feature, which values the person feature on the verb; hence, the verb may not Agree with a 1st or 2nd person object for the reasons discussed above.

As a speculation, let us add that the suffix *-st* has exactly the same function as impersonal *si*: it is a person marker as well as an Accusative marker; it incorporates on T and determines a person restriction on the

object. Evidence for the hypothesis that *-st* is an Accusative marker is given from the general observation that Accusative case is never assigned in a clause where an *-st* verb is present (Jónsson 1996, 1998). This analysis explains the majority of cases in which a person restriction arises in Icelandic QDCs. However, there are a number of verbs triggering a person restriction which do not exhibit an *–st* ending and allow for a quirky dative subject, like *líka* ('like'). We have no clear understanding of this phenomenon. The person restriction for these few verbs might be caused by analogy with the *–st* verbs. In any case, we are dealing with quite a small set; the majority of verbs that present a person restriction on the object end in *-st* (Ottosson 1992, Jónsson 1998, Taraldsen 1994). The person restriction in Icelandic does not seem to be attributable to a unique source.

### 5.1. Person restriction with Accusative subjects

A very strong counterexample to the generalization according to which datives create a person restriction on the object in Icelandic is provided by the following sentence:

| | | | |
|---|---|---|---|
| (88) | **Mig* | *sækir* | *þú* |
| | me-acc 1st ps | seeks-3rd sg | you-Nom 2nd sg |
| | 'I seek you' | | [Gunnar H. Hrafnbjargarson, p.c.] |

A 2nd person Nominative object is not licensed in (88). The object must be 3rd person. With a 3rd person object, the sentence becomes grammatical:

| | | | |
|---|---|---|---|
| (89) | *Mig* | *sækir* | *syfja* |
| | me-acc 1st ps | seeks-3rd sg | sleepiness-Nom sg |
| | ~ 'I seek for sleepiness' | | [from Yip et al. (1987:230)] |

The data in (88) and (89) show that a person restriction also holds with an Accusative Experiencer DP. Hence, a dative Experiencer is not necessary for the person restriction on the object to apply.

The person restriction on the Nominative object in (89) may be explained in two ways: either the Accusative DP agrees with the T head and something similar to Multiple Agree holds, or there is a person marker

on the verb, which is 3rd person. This very interesting issue is left open for further research.

To conclude: In this section, it was shown that an alternative explanation for the person restriction phenomenon in Icelandic is possible. Taking the strong similarity between Italian impersonal *si* and the *-st* ending as a starting point, it was proposed that this *-st* ending is responsible for the person restriction in Icelandic in most cases. However, the existence of some verbs that do not fall under this generalization suggests that Icelandic QDCs do not in fact constitute a homogeneous class.

We may now turn to address the problem of the lack of person restriction in Italian psych verbs and ISCs without V-O agreement.

## 6. No restriction: Italian psych and ISCs without V-O agreement

As shown in sections 1 and 2.3., Italian psych verbs and ISCs without V-O agreement present no person restriction on the object. In this section, it will be shown that the lack of person restriction is due either to a lack of Multiple Agree or to the lack of a person marker like *si*.

### 6.1. ISCs with no V-O agreement

Let us first consider the easiest case of ISCs without V-O agreement, such as the one in (16), here repeated as (89):

(90) *In televisione* *ti /* *mi /* *ci /*
in television you-2nd sg / me-1st sg / us 1st pl

*vi* *si vede* *ogni* *giorno*
you-2nd pl si sees-3rd sg every day
'One sees you (sg) /me /us /you (pl) every day on the TV'

(90) exemplifies an ISC without V-O agreement. As shown in the introduction, such a construction does not present a person restriction on the object. As a general observation, in section 1, it was shown that for the person restriction to hold there needs to be a Nominative object. In light of what we have said so far, we can extend the analysis of (90) and claim that no person restriction holds in (90) because the Accusative object and *si* do

not establish a Multiple Agree relation with the T head. The person on T is valued by *si*, but the number on T is the default singular, which clearly shows that no Agree between the object and T can possibly have occurred. In general, it would be quite unexpected for an Accusative marked DP to enter Agree with the T head, which assigns Nominative. As shown in the introduction, Nominative case in Italian signals agreement with the verb in T. When such an agreement does not take place, no person restriction can occur.

## 6.2. Psych verbs

The case of psych verbs of the *piacere* type is more complex. As shown in section 2.2., psych verbs in Italian exhibit a Nominative object and a dative DP. If datives agreed with the T head, a person restriction should arise due to Multiple Agree between T and the dative on the one hand and T and the Nominative object on the other. However, this is not the case, as exemplified in (91):

(91) *Mi* *piaci* *tu/*
me-1st sg dat like-2nd sg you-2nd sg Nom/

*piace lui/* *piacete* *voi*
likes-3rd sg he 3rd sg Nom/ like-2nd pl you-2nd pl Nom
'I like you (sg)/like him/ like you (pl.)'

More specifically, any combination of dative subject and Nominative object is permitted. We can have, for instance, sentences like (92), (93), and (94):

(92) *A Gianni* *piace* *la* *cioccolata*
to Gianni likes-3rd sg the-fem sg chocolate-fem sg Nom
'Gianni likes chocolate'

(93) *A te* *piace* *lui*
to you-dat likes-3rd sg he-3rd sg Nom
'You like him'

(94) *A loro* *piacete* *voi*
to them-dat like-2nd pl you-2nd pl Nom
'They like you (pl)'

These sentences show that any combination of Nominative object and dative subject is allowed in Italian psych verbs. As shown by Boeckx (2003) and argued for throughout the chapter, there is no reason to assume that datives Agree with the T head. We know that in Italian agreement with T triggers Nominative assignment, for instance, and therefore (91)-(94) cannot involve dative-T Agree for two reasons. The first reason is that Nominative surfaces on the object, which tells us that it is in fact the object that Agrees with T. The object is φ-complete, and therefore can value all the unvalued features on T. If the indirect object intervened in the T-object agreement, we should see Nominative on it, which is not the case. Therefore, we can safely conclude that datives do not agree with T in Italian.

This also holds for clitics, which in (91) are shown not to trigger the person restriction. Several studies have shown that dative clitics are not T clitics. They have been shown to occupy a specified projection, associated with the Goal or Benefactive θ-role (Poletto 2000, Manzini & Savoia 2004, 2005). That dative clitics do not spell-out T's features is also intuitively right, since T is the head that usually licenses the external argument and assigns Nominative, and it is not related to indirect objects. Thus, dative clitics do not enter Agree, nor do they cliticize on T. Therefore, no Multiple Agree-like configuration arises, and consequently there is no person restriction on Italian psych verbs.

## 6.3. Spanish psych verbs of the *olvidarse* class

In section 4.2., some interesting data from Spanish were presented. It was shown that, like their Italian counterpart, Spanish psych verbs do not present a person restriction on the object, while the *olvidarse* verbs do:

(95) *A Ana* *se* *le* *olvidaron* *{esos chicos/*
Ana.dat 3rd ps refl dat forgot-3rd pl those guys/

*ellos}*
they-Nom
'Ana forgot {those guys/them}'

(96) **A Ana nos* *le* *olvidamos* *nosotros*
Ana.dat 1st pl refl dat forgot-1st pl we-Nom

(97) **A Ana os* *le* *olvidasteis* *vosotros*
Ana.dat 2nd pl refl dat forgot-2nd pl you- pl Nom

*Olvidarse* verbs do not allow for a Nominative object which is other than 3rd person. There are two possible explanations for this person restriction: one way to go would be to say that *se* in *olvidarse* verbs cliticizes on T, and therefore the person restriction arises. The other way would be to say that given the presence of a dative clitic and an accusative clitic the PCC is at work in (96)-(97) but not in psych verbs of the *gustar* class. The latter is Rivero's (2004) proposal. We think that one analysis does not exclude the other. In other words, following Anagnostopoulou (2005) among others, we might conclude that the PCC is a special case of Multiple Agree–triggered person restriction. This would certainly work for Spanish, where in the case of *olvidarse* verbs we have two clitics, a dative clitic and an Accusative clitic, which might both enter Agree with T, whereas in the case of the *gustar* verbs we lack one of the clitics, and therefore the person restriction would vacuously not apply.

However, we have seen the Italian data, where two clitics are not necessary for the person restriction to arise. Italian does not in fact exhibit clitic doubling. Nevertheless, the person restriction arises with some *se* constructions (namely, ISCs with V-O agreement) while it does not arise with psych verbs of the *piacere* class. This seems to suggest that a Multiple Agree with T is involved in determining a person restriction. If it were so, we should go for the first solution, namely that –*se* in *olvidarse* verbs cliticizes on T. The *se* in *olvidarse* verbs is very similar to Italian impersonal *se*, but we cannot conclude that it is the same *se*, particularly given that Spanish has ISCs as well. Therefore, although we would like to propose that the person restriction in *olvidarse* verbs might be due to the

fact that *se* cliticizes on T, this claim is still only an intuition at this stage, and remains to be proven.

Alternatively, we could conclude that the person restriction arises because of the PCC in Spanish but not in Italian. In other words, Spanish and Italian might be sensitive to different constraints. We independently know, in fact, that the PCC is not at work in Italian, as shown by the following example:

(98) *Mi* *ti* *presento*
me-acc you-dat introduce
'I introduce myself to you'

(98) is grammatical in most varieties of Italian, and therefore we can conclude that the PCC does not hold, at least in these varieties of Italian. Therefore, two different constraints might be at work in Spanish and Italian. We leave this aside for further investigation.

## 7. Conclusions

In this chapter, the person restriction on the object in ISCs with V-O agreement was examined. It was shown that this phenomenon involves a Multiple Agree operation or a configuration that has the same effect as Multiple Agree, namely cliticization onto T plus Agree. The Multiple Agree configuration/operation arises instead when two DPs simultaneously Agree with a functional head (T in the case of Italian ISCs and Icelandic QDCs).

The person restriction on the Nominative object is in fact active both in Italian ISCs and in Icelandic QDCs. Despite their similarities, however, it was shown that Italian ISCs and Icelandic QDCs are not syntactically coincident. The fact that they both present a person restriction on the Nominative object is significant: given that Italian ISCs do not require a dative Experiencer in the clause, some other element must be responsible for the person restriction to apply. It was hence proposed that *si* is such an element for Italian ISCs. *Si* cliticizes on T and spells-out/values its φ-person feature. T also Agrees with the object DP and values its unvalued Case feature as Nominative. The person feature on the Nominative object cannot be 1st or 2nd person because of the condition on Multiple Agree (Anagnostopoulou 2003), which states that Multiple Agree can only take

place under non-conflicting feature specification of the agreement elements.

This analysis can easily be extended to one subclass of Icelandic QDCs, namely those which exhibit an *–st* ending on the verb: it is not the dative Experiencer that causes the person restriction on the object, but rather the *-st* ending on those verbs which take a quirky subject. No explanation is proposed for the other Icelandic QDCs. The analysis just proposed also accounts for the lack of person restriction in Italian ISCs without V-O agreement and in Italian psych verbs of the *piacere* class. In the former case, no Multiple Agree holds between the Accusative object and the T head. *Si* is in fact Nominative, and the object is Accusative. In the latter case, no element like *si* is present in the Numeration. Hence, there is no element which may value the person feature on T but the Nominative object, which values the full φ-set on T.

Finally, some Spanish psych verbs that exhibit a person restriction on the object also exhibit a *-se* affixation (the *olvidarse* class). This might constitute evidence that such reflexive-like affixes saturate the person feature on the verb, thus blocking any other person inflection but the 3rd. This would work under the assumption that this *se* cliticizes on T, like in Italian ISCs. However, we cannot be sure of this at this stage.

To conclude, in this chapter some very interesting cross-linguistic correlations have been put forward. These correlations are so striking that they can scarcely be ignored. However, a general picture has emerged according to which the person restriction on Nominative objects cannot really be attributed to a unique cause, given the sensitivity of the language to different structural constraints.

# Chapter 4
# The inclusive interpretation of impersonal *si*

## 1. Introduction

The interpretation of impersonal *si* is not univocal. It is generally acknowledged that *si* identifies a group of humans participating in the event expressed by the verb (see Chierchia 1995b among others), and in the introduction we proposed that *si* bears an [arb] number sub-feature to capture this fact. This chapter is however not specifically concerned with the number feature of *si*, which we will discuss in chapter 5, but with the interesting fact that the reference group of *si* is not uniquely defined. *Si* may identify a generic group of human beings, as in (1), or an inclusive group of human beings, i.e. a group which necessarily includes the speaker, as in (2). The meaning of *si* in (1) is roughly equivalent to the English 'one'. The meaning of *si* in (2) is roughly equivalent to 'we'.

(1) *In quel* *ristorante* *si mangiava* *bene*
in that restaurant si ate-impf well
'One used to eat well in that restaurant'

(2) *Ieri* *si è* *arrivati* *tardi*
yesterday si is arrived late
'Yesterday we arrived late'

The sentence in (1) has generic reference. Its subject is understood as generic, unspecified. (2), on the contrary, has a specification for inclusiveness: the reference set identified by *si* necessarily includes the speaker. It is important to note that in (1) the speaker may also be included in the reference set, simply because the speaker is part of the universe. The difference between (1) and (2) is tangible, however, as (2) is clearly specified for inclusiveness.

ISCs may also have a third reading: such a reading is called exclusive or existential, and is exemplified in (3):

(3) *Mi* *si è raccontata* *una storia falsa*
me-dat 1st sg si is told-pp fem sg a story false
'Somebody told me a false story'

(3) has an exclusive interpretation: the speaker is not included among those performing the action of telling the story.

In this chapter, the interpretation of *si* in different contexts is examined, mainly focusing on the generic/inclusive interpretation. It is shown that the interpretation of the ISC varies depending on whether the event is bounded or unbounded, i.e. whether it has temporal boundaries or not. As a general rule, if the event is bounded, *si* receives an inclusive interpretation. If the event is unbounded, *si* receives a generic interpretation. As observed by Cinque (1988), the tense-aspectual setting of an ISC directly influences its interpretation. Starting from Cinque's insights, an analysis will be put forward which accounts for the inclusive reading of impersonal *si*.

In the next section, after a short introduction to the general problem, the main readings that ISCs may receive are listed. It is shown how different tense-aspectual combinations of the verb give rise to different interpretations. In section 3, after a brief summary of Cinque's (1988) analysis, some tests for inclusiveness are presented. These tests show that an inclusive reading is also possible with transitive and unergative verbs, *contra* Cinque (1988) and Mendikoetxea (2002). Moreover, some data that focus on the interpretational variation of ISCs will be highlighted. In section 4, boundedness, rather than specific time reference (Cinque 1988) or perfectivity (D'Alessandro & Alexiadou 2002, 2003a, D'Alessandro to appear b), will be shown to be responsible for the inclusive reading. Section 5 contains the analysis: the feature set of *si* in not unidimensional, but is articulated so that an [arb] sub-feature is associated to the 3rd person of *si*. This additional [arb] sub-feature, which may be present in a feature set as a further level of person specification, characterizes all the so-called impersonal pronouns, and needs to be specified in order for the sentence to be interpretable, so that the reference set of the pronoun is uniquely identified. If the event is bounded, and the sentence is thus perfective, no value specification is available for [arb]. Hence, *si* receives its person feature value through 'binding' by the Speech Act head, which encodes information about the actual participants in the speech event (Bianchi 2001, 2003, Sigurðsson 2001, 2004a, Speas 2000, 2004). The Speech Act head

encodes 1st and 2nd person values for person. Thus, the person feature of *si* is specified as 1st/2nd, i.e. as inclusive. Section 6 contains the conclusions.

## 2. Interpretational variation for impersonal *si* constructions

As shown in the introduction, ISCs may have various interpretations. In this section, the possible interpretations that ISCs may acquire are classified. In section 2.1., it is shown that *si* behaves like an indefinite in some contexts, and like a definite pronoun in some others. Section 2.2. addresses the problem of the inclusive-exclusive reading of *si*.

### 2.1. *Si* as an indefinite subject

Impersonal *si* may have different readings, depending on several factors, which we are going to identify in this section.

It is commonly assumed that an indefinite subject in the present tense is understood as a universal quantifier (Cinque 1988 and references listed there, Chierchia 1995a, Carlson & Pellettier 1995). To exemplify this concept, Cinque (1988) makes use of the following example, quoted from Jackendoff (1972:310):

(4) *A rhinoceros eats small snakes*

(4) means that:

(5) for every x, x a rhinoceros, x (characteristically) eats small snakes

(4) is a statement, or describes a characteristic that all elements belonging to a given set exhibit. Every individual that belongs to such a set exhibits the same characteristic.

When specific time reference is introduced in a clause, the indefinite subject can no longer be interpreted as generic. The interpretation is now existential. Cinque examines the following sentence:

(6) *A rhinoceros is eating small snakes*

(6) may not mean that any rhinoceros has the property of eating small snakes, but rather that there exists a rhinoceros that is eating small snakes. In other words, under the existential interpretation, the sentence is true if there is one individual that satisfies the properties expressed by the predicate.

Chierchia (1995b) shows that *si* behaves exactly like an indefinite in several respects; in particular, it presents the same behavior as indefinites with respect to the universal and existential reading: in the present tense, *si* receives what Cinque calls a quasi-universal interpretation, as in (7):

(7) *In Italia* *si beve* *molto* *vino*
in Italy si drinks much wine
'In Italy one/people drink(s) a lot of wine'
[from Chierchia (1995b:108)]

With specific time reference, ISCs receive a quasi-existential interpretation, as in (8):

(8) *Ieri* *in Italia si è giocato* *male*
yesterday in Italy si is played badly
'Yesterday somebody in Italy played poorly'

Cinque calls the two readings in (7) and in (8) quasi-universal and quasi-existential respectively. The behavior of *si* in (7) and (8) reflects quite straightforwardly the behavior of an indefinite pronoun. If the event has a temporal limit, the generic interpretation of an indefinite is excluded, because we are referring to a limited event, which requires specific participants. With specific time reference, thus, an existential reading arises.

A behavior similar to that of *si* is pointed out by Egerland (2003a,b) for Swedish impersonal *man*.[28] We will briefly address the inclusive interpretation of Swedish *man* in section 5.3.2.

To sum up, *si* behaves like an indefinite as it appears to be sensitive to temporal boundedness. If the event has no temporal boundary, *si* receives a generic interpretation. If specific time reference is inserted in the clause, *si* receives an existential interpretation. This existential reading may be further specified. In particular, an inclusive reading arises for ISCs in the past tense (see Rivero 2000 for similar data on Romance and Slavic).

So far, we have been using the terms 'specific time reference' and 'past tense' with no precise denotation. In section 3, it will be shown that *si* is sensitive to temporal boundedness, and that the introduction of specific time reference or the use of the perfect are instantiations of temporal boundedness rather than phenomena independent from each other.

## 2.2. Inclusiveness and existentiality of impersonal *si*

ISCs may also receive an existential/inclusive interpretation, in addition to the purely existential and generic readings. Under the inclusive interpretation, the group of people identified by *si* necessarily includes the speaker, i.e. the person who utters the sentence. The example in (2), here repeated as (9), exemplifies this phenomenon:

(9) *Ieri* *si è* *arrivati* *tardi*
yesterday si is arrived late
'Yesterday we arrived late'

In (9), the reference set identified by *si* includes the speaker. As observed by Cinque, such an inclusive reading obtains when the time reference is specified in the clause. In (9), thus, the introduction of specific time reference triggers existential closure, but *si* is further specified as being inclusive. In other words, the group of people who existentially close the predicate is specified as including the speaker. We will come back to the inclusiveness issue in more detail in the next section, to show that time reference is not the only element responsible for the inclusive reading arising.

Impersonal *si* may also have an exclusive reading, i.e. a reading for which the speaker is excluded from the reference set. This is the case in (10), where the speaker may not be included among the people performing the action, but the sentence is nevertheless grammatical:

(10) *Mi* *si è* *raccontato* *che Maria ha* *riso*
me-dat 1st sg si is told that Maria has laughed

*molto* *ieri*
a lot yesterday
'I have been told Maria laughed a lot yesterday'

Obviously, the speaker cannot be among those who tell the speaker that Maria laughed yesterday. The exclusive reading is often referred to as quasi-existential reading (Cinque 1988). We will therefore refer to the exclusive reading simply as existential. In (10), there is a group of individuals that satisfy the property of having told the speaker that Maria laughed.

The existential reading is not available with all verb classes. Cinque shows that the availability of the existential interpretation depends on the verb class. In particular, he shows that only transitive and unergative verbs allow an existential reading, as the following examples show[29] [all the examples are taken from Cinque (1995:148:43a-g)]:

(11) *Oggi, a Beirut, si è ucciso un innocente*
today in Beirut si is killed an innocent
'Today, in Beirut, somebody killed an innocent' [transitive]

(12) *Oggi, a Beirut, si è sparato tutta la mattina*
today in Beirut si is shot all the morning
'Today, in Beirut, somebody was shooting the whole morning'
[unergative]

(13) *# Oggi, a Beirut, si è morti inutilmente*
today in Beirut si is died in vain
'Today, in Beirut, we have died in vain'' [unaccusative]

(14) *# Oggi, a Beirut, si è preoccupato il*
today in Beirut si is worried the

*contingente ONU*
contingent UN
'Today, in Beirut, we have been worrying the UN contingent'
[psych-movement]

(15) *# Oggi, a Beirut, si è sfiniti dalla fame*
today in Beirut si is worn-out by-the hunger
'Today, in Beirut, we are worn out with hunger' [copular]

(16) *# Oggi, a Beirut, si è stati uccisi inutilmente*
today in Beirut si is been killed in-vain
'Today, in Beirut, we have been killed in vain' [passive]

(17) *# Oggi, a Beirut, si è risultati non aver rispettato*
today in Beirut si is turned-out not to-have respected

*le convenzioni internazionali*
the conventions international
'Today, in Beirut, we turned out not to have compelled with international conventions' [raising]

As examples (11)-(17) show, an existential reading is only possible with transitive and unergative verbs. We will come back to this issue in section 5.5.

According to Cinque, the availability of this quasi-existential/arbitrary reading is restricted to sentences with specific time reference. In section 3, we will see that the whole picture is more complex and that aspect and *Aktionsart* also play a big role in determining the reference set of *si*.

To summarize, ISCs may have three possible interpretations:

[1.] a generic interpretation, which usually arises when the sentence is in the present tense, as in (7);

[2.] an existential/exclusive interpretation, which usually arises with specific time reference, as in (10) (only with transitive and unergative verbs);

[3.] an existential/inclusive interpretation, which usually arises with specific time reference, as in (9).

Moreover, in section 5.6., some data are presented from Florentine, which only selects the inclusive reading for *si* with specific time reference.

## 3. Specific time reference, aspectual specification and inclusiveness

In his seminal paper, Cinque (1988) observes that the meaning of ISCs changes according to the time reference specification of the clause. In particular, he shows that a generic sentence turns into an inclusive/existential one when specific time reference is introduced in the clause. Let us consider the sentence in (18). With no time reference specification, *si* receives a generic interpretation, i.e. it has a quasi-universal reading in Cinque's terms:

(18) *A Beirut* *si uccide* *un innocente* *ogni* *minuto*
in Beirut si kills an innocent every minute
'In Beirut an innocent is killed every minute (by somebody)'

If the sentence has specific time reference, it receives an existential interpretation, as in (19):

(19) *Oggi,* *a Beirut,* *si è* *ucciso* *un innocente*
today in Beirut si is killed an innocent
'Today, in Beirut, one killed an innocent'
[from Cinque (1995:148:43a)]

With specific time reference, ISCs with unaccusatives, psych, movement, copular, passive and raising verbs receive an inclusive interpretation. In (20), we repeat one of the examples that Cinque uses to illustrate this phenomenon:

(20) *# Oggi,* *a* *Beirut si è morti* *inutilmente*
today in Beirut si is died in-vain
'Today in Beirut we died in vain'
[from Cinque (1995:148:43c)]

In (20), the inclusive reading of *si* results in a pragmatically odd sentence. *Si* in (20) has an inclusive interpretation, due to the specific time reference of the clause. If *si* is inclusive, the speaker is among the participants in the event. The sentence in (20) is pragmatically odd because it is impossible that the speaker died today in Beirut and is now telling us that he died.

According to Cinque, thus, specific time reference with unaccusative, psych, movement, passive, copular, and raising verbs results in an inclusive reading of the sentence. He claims that the inclusive reading is not obtainable with verbs which project an external θ-role, such as transitives and unergatives. Cinque remains unsure of the reason why exactly an inclusive/'we' reading is obtained, and not a 3rd person singular for instance. He suggests that a 1st person plural pronoun represents the best approximation of a referential pronoun to an arbitrary one. In particular, he proposes that 'we' is the most 'complete' among all pronouns, as it includes 1st, 2nd and 3rd person. This means that it is the most generic of the pronouns.

Building on Cinque's observations, we shall propose that the inclusive reading is determined by a valuation of the [arb] person sub-feature on *si*. When this person sub-feature is valued by the Speech Act head, the result is an inclusive reading. We will come back to this proposal in section 5. For the moment, we will present some observations that have escaped Cinque's careful analysis of the facts. In particular, it will be shown that transitive and unergative verbs may also obtain an inclusive interpretation.

In the next section, some tests for inclusiveness are presented, which will be applied to transitive and unergative ISCs. In section 3.2., it will be shown that all verb classes can indeed receive an inclusive reading, contrary to Cinque's claim that only verbs that do not project an external θ-role may receive this interpretation.

### 3.1. Tests for inclusiveness

It has been shown that ISCs with specific time reference may receive an inclusive interpretation. Before examining the conditions under which this interpretation arises, we will review a list of test/diagnostics with the aim of drawing the distinction between a real inclusive interpretation and a generic one. It is worth recalling that a generic interpretation of *si* may also include the speaker, as a part of the universe.

The tests proposed below identify the interpretation of an ISC that is specified for inclusiveness. These tests were first suggested by Cinque (1988) and Kratzer (1995).

Kratzer (1995, 2000) proposes a test for the inclusive reading of the German impersonal pronoun *man* ('one'). She observes that only inclusive

*man* may license a predicative NP. Her examples are given in (21) and (22) below:

(21) *[Als Hüter des Gesetzes] war*
as guardian-nom sg/pl masc the-gen law-gen was

*man verpflichtet, die Einhaltung aller Bestimmungen*
man-incl obliged the observance all-gen regulations-gen

*zu überwachen*
to watch-over
'As guardians of the law, we were obliged to watch over the observance of all regulations' [from Kratzer (2000:4)]

(22) **[Als Hüter des Gesetzes] hat*
as guardian-nom sg/pl masc the-gen law-gen has
*man mir erklärt, ich konne hier nicht*
man me-dat explained I could-subj here not
*wohnen*
live
'As guardians of the law, they explained to me that I couldn't live here' [from Kratzer (2000:4)]

Kratzer observes that in (21), the presence of a predicative NP related to the subject forces an inclusive reading for *man*. In (22), where an inclusive reading of the subject is not possible for pragmatic reasons, the use of a predicative NP causes ungrammaticality.

The predicative NP test is helpful for German *man* as well as for Italian *si*. The Italian translations of (21) and (22), in (23) and (24) respectively, present almost the same difference in grammaticality:

(23) *Come guardiani della legge, si è stati obbligati a controllare l'osservanza di tutti i regolamenti*

(24) *??? Come guardiani della legge, mi si è spiegato che io non posso vivere qui*

The ungrammaticality of (24) is indeed questionable. Many Italian speakers would accept it as grammatical (not the author, though). The reason why some Italian speakers accept (24) is that the reading of (24) is not only exclusive. As we will see in section 3.2., some classes of verbs admit both an inclusive and an exclusive reading under certain fixed circumstances. For those Italians who interpret *si* in (24) as exclusive, the sentence is ungrammatical. It is important to recall that *si* is exclusive only in a very limited number of contexts, with transitive and unergative verbs. The fact that (24) may be acceptable for some speakers does not affect the result of Kratzer's test, however, which is aimed at showing that inclusive pronouns admit a predicative NP. From the observation of (23), one can easily conclude that for Italian impersonal *si* a predicative NP is also allowed when the interpretation is inclusive.

Kratzer's test also distinguishes between the exclusive and the inclusive reading of *si*, as sentence (25) shows. In (25), only an exclusive reading of the second *si* is pragmatically permitted:

(25) *Quando si è tornati alla pensione, si*
when si is returned at-the boarding-house si

*serviva già la zuppa*
served-impf already the soup
'When we returned to the boarding house, they were already serving the soup' [translation of Kratzer's (1995:6) example]

In (25), the speaker may not be included among those serving the soup. According to Kratzer's test, a predicative NP should not be licensed as a modifier of the second *si*. This is in fact the case, as (26) shows:

(26) **Quando si è tornati alla pensione, da*
when si is returned to-the boarding-house, as

*bravi camerieri si serviva già la zuppa*
good waiters si served-impf already the soup
'When we returned to the boarding house, as good waiters, they were already serving the soup' [translation of Kratzer's (1995:6) example]

Kratzer's test thus helps us distinguish between the inclusive and the exclusive reading of impersonal *si*.

Cinque (1988), on the other hand, proposes applying a pragmatic strategy in order to identify the inclusive reading of *si*. He selects a predicate that is pragmatically incompatible with an inclusive reading of *si*. Then, he creates the syntactic conditions that give rise to an inclusive reading. The result is a semantically/pragmatically odd sentence, as in (27):

| | | | | | |
|---|---|---|---|---|---|
| (27) | *# Oggi, a* | *Beirut,* | *si è* | *morti* | *inutilmente* |
| | today in | Beirut | si is-3rd sg | died-pl masc | in-vain |

'Today in Beirut we died in vain' [from Cinque (1995:148)]

(27) is odd inasmuch as the speaker may not utter it, as he/she is included in the reference set identified by *si*, which is made up of the people who died today. The fact that a pragmatically odd sentence is obtained shows that (27) is inclusive.

In addition to pragmatic oddity, Cinque uses other diagnostics to show that *si* is inclusive in contexts of specific time reference. Inclusive *si* [from Cinque (1995:159-160)]:

- is incompatible with 3rd person arbitrary elements like *se stess-* and *propri-*:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (28) | ** Amici! Un* | *minuto fa* | *si è* | *stati* | *abbandonati* | *a* |
| | friends a | minute ago | si is | been | abandoned | to |

*se stessi*
onself

- may occur with 1st person plural emphatic pronouns [from Burzio (1986:109-15)]:

| | | | |
|---|---|---|---|
| (29) | *Si è stati* | *invitati anche* | *noi* |
| | si is been | invited also | we |

'We too were invited'

- may resume a (left-dislocated or relativized) 1st person plural pronoun:

(30) *Noi, ha detto che non si è stati invitati*
we has-3rd sg said that not si is been invited
'As for us, he/she said that we have not been invited'

- gives rise to disjoint reference effects with 1st person pronouns:

(31) **Ieri sera, mi / ci si è stati*
yesterday evening me-dat us-dat si is been

*presentati troppo in fretta*
introduced too in hurry

With the help of these tests, we can now proceed to identify whether ISCs with transitive and unergative verbs really do not permit an inclusive reading.

### 3.2. Inclusive reading with transitive and unergative verbs

In section 2.2., we have seen that according to Cinque an inclusive reading is only available with verbs that do not project an external θ-role. An inclusive reading is thus not available with transitive and unergative verbs. This statement is not completely true, however. The data presented below show that an additional inclusive reading is available for transitive and unergative verbs. As an example, let us consider the sentence in (32):

(32) *Da perfetti buongustai, ieri sera si è mangiato*
as perfect gourmets, yesterday evening si is eaten

*caviale*
caviar
'As perfect gourmets yesterday evening we ate caviar'

The verb *mangiare* ('eat') is transitive. Nevertheless, a predicative NP modifying *si* is licensed in the clause. According to Kratzer's test, this shows that *si* is inclusive in (32). The same holds for (33), which contains an unergative verb:

(33) *Da bravi cittadini, si è telefonato spesso alla polizia*
as good citizens si is telephoned often to-the police

*negli ultimi giorni*
in-the last days
'As good citizens, we have often called the police in the last days'

Moreover, *si* in (32) and (33) is incompatible with a 3rd person arbitrary reflexive, like *propri-*.[30] The incompatibility of *si* with *propri-* in (34) shows that *si* also has an inclusive reading in addition to the exclusive reading described by Cinque (1988):

(34) **Da perfetti buongustai, ieri sera si è mangiato*
as perfect gourmets yesterday evening si is eaten

*il proprio caviale*
the one's caviar
'As perfect gourmets yesterday evening each of us has eaten his/her own's caviar'

(35) *???/* Da bravi cittadini, si è telefonato spesso alla propria*
as good citizens si is telephoned often to-the own's

*centrale di polizia negli ultimi giorni*
central of police in-the last days
'As good citizens, we have often called our police station in the last days'

In (34)-(35), *si* is incompatible with the 3rd person arbitrary element *proprio* ('own'). This means that *si* in these examples is inclusive. Furthermore, observe that in these sentence pairs *si* may also occur with a 1st person plural emphatic pronoun, which shows once again that *si* is inclusive, as proposed by Cinque:

(36) *Noi, ieri sera, si è mangiato caviale*
we yesterday evening si is eaten caviar
'Yesterday evening we ate caviar'

(37) *Noi, ieri sera, si è telefonato*
we yesterday evening si is called

*alla polizia*
to-the police
'Yesterday evening we called the police'

Thus, unergative and transitive verbs do permit an inclusive reading. Cinque's observation, however, does have solid grounds, as the data in the next section show.

### *3.2.1. Interpretational variation of ISCs with transitive and unergative verbs*

There seems to be significant variation among Italian speakers with respect to the interpretation of ISCs. To clarify the inclusiveness issue, twelve informants were tested. The test was aimed at understanding whether the existential reading is really the only available reading for verbs with an external θ-role. The sentence in (38) was thus presented to twelve Italian speakers. This sentence should be semantically/pragmatically uninterpretable for those people who attribute an inclusive reading only to *si*, whereas it should be acceptable to those speakers who attribute a purely existential reading to *si*.

(38) *Ieri mi si è detto che Maria è malata*
yesterday mi si is told that Maria is ill
'Yesterday someone/we told me that Maria is ill'

Under the inclusive/'we' reading of *si*, (38) is pragmatically unacceptable. More specifically, a disjoint reference effect takes place under this interpretation (see Stefanini 1982, Cinque 1988), since the speaker and the addressee are taken to coincide under the inclusive reading of *si* in this sentence. The results of the test are very telling. First, the two speakers from Tuscany consider the sentence as completely uninterpretable. This is very likely due to the fact that Tuscan has undergone a process of reanalysis and nowadays presents only an inclusive reading. Five speakers claim that the sentence is utterable but not very likely, and that they can

understand it but that they would rather use the 3rd plural arbitrary *pro* if they wish to convey an exclusive reading. Three speakers (in addition to the two Tuscan ones) consider (38) uninterpretable. Finally, two speakers consider the sentence perfectly grammatical and interpretable. A summary of the grammaticality judgments for (39) is offered in (39) below:

(39)

| judgment | number of speakers |
|---|---|
| ***** | 3 + 2(from Tuscany) |
| **OK** | 2 |
| **?\??** | 5 |

With the clear exception of Tuscan, the distribution of judgments is in no way relatable to regional varieties of Italian,. Tuscan speakers have been isolated, in fact, because of the peculiar use they make of ISCs. We will return to this case in section 5.6. As for the remaining speakers, it appears that some of them do not accept the exclusive (i.e. the existential) use of *si* in contexts of specific time reference. The speakers who have mixed judgments are speakers who get both the existential and the inclusive readings. The degree of unacceptability shows the 'level' of inclusiveness of a sentence: the less acceptable the sentence, the more the speaker prefers the inclusive reading. Finally, the speakers who accept the sentence as perfectly nterpretable get the existential reading as the first (and perhaps the only) available reading.

The data in (39) show that for the majority of speakers the interpretation of (38) is inclusive. In section 4.2., it will be shown how such an inclusive reading correlates with the boundedness of the event.

### *3.2.2. Is* si *always inclusive?*

The fact that all classes of verbs allow for an inclusive interpretation under some specific circumstances that will be discussed further on may be an indication that *si* is always inclusive. Chierchia (1995b), for instance, claims that *si* 'favours a speaker-oriented interpretation' [from Chierchia (1995b:126)]. In other words, *si* is mainly inclusive.

To have a clear answer to this issue, one needs to draw a distinction between a properly inclusive (speaker-oriented in Chierchia's terms) reading, and generic reading, which may include the speaker. In some

contexts, *si* is only inclusive. Later on, it will be claimed that whenever perfective is marked on the verb, the ISC becomes inclusive. This inclusive reading, as the data in (39) show, is always possible, with any class of verbs. Once again, by inclusive reading, we mean a reading that is specified for inclusiveness, which obligatorily includes the speaker among those who are affected by the event. An example of inclusiveness is in (2), here repeated as (40):

(40) *Ieri* *si è* *arrivati* *tardi*
yesterday si is arrived late
'Yesterday we arrived late'

It is important to recall that the generic reading may also be inclusive (in some sense). If a property is true for everybody, it will be true for the speaker as well. In (41), the speaker may be included among those who perform the action of arriving, but there is no 'specification' for it. The sentence may also be true if the speaker has never been to Milan.

(41) *Si arriva* *sempre* *tardi* *a* *Milano*
si arrives always late in Milan
'People always arrive late in Milan'

In section 2.2., however, it was shown that a third reading is also available for ISCs: the existential/exclusive one. Under this reading, the speaker is not included among those performing the action expressed by the verb. An example of an exclusive reading is (25), here repeated as (42):

(42) *Quando* *si è* *tornati* *alla* *pensione,* *si*
when si is returned at-the boarding-house si

*serviva* *già* *la* *zuppa*
served-impf already the soup
'When we returned to the boarding house, they were already serving the soup'

[translation of Kratzer's (1995:6) example]

We can conclude that *si* is not always inclusive.

Before turning to the analysis of inclusive ISCs, we need to examine the data in detail. From a careful observation of the data a characterization of

inclusiveness as strictly related to boundedness emerges, as will be shown in section 4.

### *3.2.3. Vagueness or double interpretation?*

So far, it has been shown that ISCs with transitive verbs present both an inclusive and an exclusive/existential reading when specific time reference is available in the sentence. The question now arises of whether these two interpretations are really both available or whether there is instead underspecification, i.e. vagueness of interpretation with transitive and unergative verbs (cf. Alonso-Ovalle 2000). A very good means for testing this is by applying coordination between two ISCs. If two sentences have the same unspecified subject, coordination is considered to select the same value for both subjects (cf. Zwicky & Sadock 1975). If one of the two subjects is unspecified and the other is specified, the former subject will adopt the value of the specified one. Let us consider the sentence in (43):

(43) *Mi* *si è detto che* *Raffaella Carrà* *è* *in pensione*
to-me-dat si is said that Raffaella Carrà is in pension
'Somebody told me that Raffaella Carra has retired'

(43) is clearly exclusive. Let us coordinate (43) with another ISC. Were the interpretation of the second ISC unspecified or vague, the second ISC would select the exclusive interpretation under coordination with the exclusive ISC in (43). This is however not the case, as (44) shows:

(44) *#Me* *lo* *si è detto e* *si è andati* *a* *cena*
to-me-dat it-acc si is said and si is gone to dinner
'People told me that and we went for dinner'

(44) is odd because the second interpretation is inclusive and the first is obligatorily exclusive. Therefore, there is a clash under coordination. This shows that the inclusive and the exclusive reading really are both available, and that we are not dealing with semantic underspecification.

That said, let us now turn to analyzing the triggers for the inclusive reading.

## 4. Aspect and boundedness

As shown in the previous section, Cinque (1988, 1995) claims that an inclusive reading is obtained with verbs that do not project an external θ-role when a specific time reference is introduced in an ISC. The data presented in section 3.2. partially contradict this generalization. An inclusive reading is in fact also available with transitive and unergative verbs.

Furthermore, according to Cinque, what causes inclusiveness or existentiality is specific time reference. Our aim is to show that specific time reference is only one of the triggers for inclusiveness. In this section, it will be shown that what really triggers the inclusive reading is the boundedness of the event. Before addressing the core problem of inclusiveness and its relation with temporal reference, perfectivity, and boundedness, a brief introduction of the theoretical background we will refer to is necessary.

### 4.1. Eventuality, boundedness and telicity

As seen in chapter 2, events may be classified into *states*, *accomplishments*, *activities* and *achievements* (Vendler 1967). Vendler proposed a classification of verb classes according to temporal duration, temporal termination and internal temporal structure. More specifically, Vendler distinguished between states, that have no internal structure or change during the time span over which they are true; activities, which have internal change and duration but no obligatory temporal endpoint; achievements, that have instantaneous endpoint and no duration; and accomplishments, that are events with duration and an obligatory temporal endpoint. These aspectual properties, with the classification proposed by Vendler, are often referred to as *Aktionsarten.* These four classes have been organized by various linguists into different groups. Bach (1981) proposes a classification according to which all aspectual classes may be called eventualities. Another distinction is often made between stative and non-stative verbs. We will not address this issue any further, but for a finer-grained classification of *Aktionsarten* the reader is referred to Tenny & Pustejovsky (2000), Guerrero Medina (2001), and Smith (1991).

The property of an event of having or not having a temporal endpoint has been referred to in the literature as the *boundedness* of the event

(Verkuyl 1972, Jackendoff 1990), the *culmination* of the event (Moens & Steedman 1988, Zagona 1996), the *telicity* of the event (Smith 1991), or the *delimitation* of the event (Tenny 1987, 1994). These definitions are not equivalent, however, and relate to different notions. More specifically, telicity refers to the presence of boundaries in the semantics of the VP, and it is therefore directly related to *Aktionsart*. Boundedness (as well as delimitation and culmination) refers instead to the actual temporal boundaries of the event, i.e. to when/if the event actually comes to an end. Cappelle & Declerk (2005) provide a very straightforward definition of this difference, that we repeat in (45):

(45) a. (Non)boundedness is a matter of how a particular actualisation of a kind of event is represented with respect to the question: Does the event come to an end or not?
b. (A)telicity [(a)terminativity] is a matter of whether or not we conceptualise a kind of event as having an inherent or intended endpoint (point of completion).

[from Cappelle & Declerk (2005: 895), in Sonnenhauser (2005:3)]

The same distinction is outlined by Depraetere (1995):

(46) '(A)telicity has to do with whether or not a situation is described as having an inherent or intended endpoint; (un)boundedness relates to whether or not a situation is described as having reached a temporal boundary'

[from Depraetere (1995: 2-3)]

Thus, telicity is an inherent property of verbs, which is related to the 'potential actualization' of a situation; *boundedness* instead determines the actual realization of a situation. Thus, while telicity matters for the definition of the VP's *Aktionsart*, boundedness is 'external' to the event semantics, and concerns the whole event, be it telic or atelic.

It should be also kept in mind that we talk about the aspectual properties of the VP, rather than the aspectual properties of the verb (see Ramchand 2006 among others for a detailed discussion of this issue), since many factors, such as adverbial modification and the definiteness of the object DP, interact with the 'basic' verb *Aktionsart*. In addition to the VP's

*Aktionsart*, we have sentential aspect, which refers to the actual temporal boundaries, or to the completion, of the event.

In chapter 2, we discussed the interaction between agreement patterns and the *Aktionsart* of the transitive VP that contains *si*. This chapter instead addresses the interaction of sentential aspect (i.e. the presence/absence of boundedness) with impersonal *si*. Before going into the analysis, we also need to remember that it is widely accepted that aspect and tense are encoded on different functional projections, despite the fact that they appear as portmanteau morphemes in many languages (Comrie 1976). The structure we adopt is introduced later on, in section 5.3.

With this terminological clarification in place, we can now turn to considering the effect that boundedness has on the interpretation of impersonal pronouns.

## 4.2. Boundedness and the inclusive reading

On a first superficial look at the data, the inclusive reading appears to be somehow linked to the use of the past tense. Here, we will not provide a detailed description of Italian simple past and present perfect as compared with the corresponding English tenses (see Bertinetto 1997, Giorgi & Pianesi 1997, and Arosio 2003 for a detailed analysis of the Italian past tense). However, that specific time reference seems to introduce an inclusive reading in ISCs is not accidental. In this section, it will be shown that specific time reference is in fact one of the causes of inclusiveness, which is also conveyed by perfective aspect in general.

Specific time reference and perfective are indeed two sides of the same coin: they both create boundedness of the event. Thus, we will argue that it is boundedness that brings about the inclusive interpretation of impersonal *si*. How is this possible?

Let us start from the fact that the default reference point for events is the utterance time, or speech time. This suggests that inclusiveness follows from the fact that *si* assumes deictic reference. In fact, under some circumstances, which will be outlined in section 5.3., the person feature does not have any other way of being interpreted other than by being D-linked to the speech act. An interpretation that refers to the speech act is indeed quite natural, and is the most straightforward solution when other reference points are missing in the clause. The speech act encodes information about the speaker and addressee. If *si* receives its interpretation

being anchored to the speech act, which in turn is specified for speaker/addressee, then *si* will be specified for speaker and addressee. Therefore, *si* will be interpreted inclusively, since it will include the speaker.

In featural terms, this can be rephrased as follows. As stated in the introduction, *si*, being an impersonal pronoun, bears a complex person feature, which is further specified as [arb]. This [arb] sub-feature characterizes impersonal pronouns and needs to be specified/valued for the sentence to be interpretable; in other words, *si* needs to refer to a specific reference set, and this can happen only if the person feature is fully valued, i.e. if the [arb] sub-feature is valued as well. Valuation of the person [arb] sub-feature with reference to the speech act will lead to a specification of this sub-feature as relating to speaker and addressee, i.e. to the participants in the speech act. An inclusive reading will therefore arise. The details of the specification for inclusiveness will be exposed in section 5.2. In this section, we will instead concentrate on the notion of boundedness and on what the causes of inclusiveness are.

We saw that according to Cinque (1988, 1995), an inclusive reading is obtained in an ISC when a specific time reference is introduced in the clause. One of Cinque's famous examples is in (47):

| | | | | | |
|---|---|---|---|---|---|
| (47) | *# Oggi, a* | *Beirut,* | *si è* | *morti* | *inutilmente* |
| | today in | Beirut | si is-3rd sg | died-pl masc | in-vain |
| | 'Today in Beirut we died in vain' | | | | [from Cinque (1995:148)] |

According to Cinque, the introduction of *oggi* creates the conditions for an inclusive reading to arise. However, as shown in D'Alessandro & Alexiadou (2002, 2003a, D'Alessandro to appear b), specific time reference is sometimes not enough for determining inclusiveness. An important role is also played by aspect, as the contrast between (48) and (49) below shows:

| | | | | |
|---|---|---|---|---|
| (48) | *In quel* | *ristorante* | *si mangiava* | *bene* |
| | in that | restaurant | si ate-impf | well |
| | 'One used to eat well in that restaurant' | | | |

(49) *In quel* *ristorante* *si è* *mangiato* *bene*
in that restaurant si is eaten-pf well
'Somebody/we have eaten well in that restaurant'

In (49), the use of perfective aspect forces an inclusive reading. (49) does not contain any time reference specification. Yet, *si* has an inclusive reading. Aspect thus plays a big role in the interpretation of the sentence. In fact, both perfective and specific time reference introduce a boundary in the event time, and locate the event before the utterance time. Perfectivity is usually assumed to encode 'anteriority' with respect to the speech time (but see Iatridou, Anagnostopoulou & Pancheva 2003 for an analysis of perfectivity as only introducing a time-span in the clause). Thus, perfectivity creates (or goes together with) boundedness, i.e. completion of an event.

Bounded events are prototypically in the past tense. If an event is completed, it is usually assumed that it is completed prior to the utterance time. Undoubtedly, an event may also be completed in the future, but what matters is that the event is complete. Thus, perfectivity and boundedness are closely related, and take the utterance time as a reference point.

Boundedness may be conveyed both by introducing a specific time reference in the clause and/or by perfectivity. We can therefore argue that boundedness is responsible for the inclusive reading of impersonal *si*.

If boundedness of an event is responsible for the inclusive reading of the impersonal pronoun which is present in the clause, then one would expect that, when boundedness is suspended, pronouns should lose the inclusive reading. This is exactly what happens in ISCs, as Cinque (1988, 1995) also observes. Specifically, Cinque observes that in contexts of suspended time reference, as in (50), the inclusive interpretation disappears. However, it is not the suspension of time reference that creates genericity, but rather the elimination of time boundaries for the event. A sentence like (47), which was uninterpretable under an inclusive reading, suddenly becomes interpretable:

(50) *Se oggi* *a Beirut si è morti* *inutilmente,* *(ieri,*
if yesterday in Beirut si is dead in-vain yesterday

*a Belfast, non si è certo morti per una ragione sensata*
in Belfast not si is certainly dead for a reason meaningful
'If yesterday in Beirut people died in vain, today in Belfast people have not died for a good reason either' [from Cinque (1995:150:45a)]

In (50), the time reference is 'suspended' (in Cinque's terms) by transforming the main clause in an *if*-clause. This amounts to saying, in our terms, that the time boundaries are eliminated. In fact, in (50) the event extends without an endpoint and the inclusive reading disappears. Boundedness is thus the key to explain the generic/inclusive alternation.

If the hypothesis that we are trying to put forward here holds, then one should also expect that whenever an unbounded event takes place, an inclusive reading is not allowed. This amounts to saying that the 'suspension' of inclusiveness arises not only in cases of suspended time reference, but also in all cases involving an unbounded event. To check whether this is true, let us consider three prototypical cases where unboundedness occurs: present tense, imperfective aspect, and the introduction of *always* in a bounded event.

According to Smith & Erbaugh (2002) and Smith (2003), all simple present tenses express unbounded situations. This is called the Bounded Event Constraint, and is quoted in (51):

(51) The Bounded Event Constraint: Bounded events are not located in the Present [Smith & Erbaugh (2002:4)]

The perspective of the present time is incompatible with boundedness. Smith & Erbaugh (2002) present a very clear explanation for such a constraint, provided by Kamp & Reyle (1993), and here repeated in (52):

(52) 'A present tense describes an eventuality (situation) as occurring at the time at which the sentence is uttered, and thus at a time at which the thought is being entertained which the sentence expresses [...] A sentence which describes something as going on at a time - in the sense of not having come to an end when that time is up - cannot represent something as an event. For the event would have to be

entirely included within the location time and thus would not extend beyond it'

[from Kamp & Reyle (1993:536-7)]

Thus, an eventuality in the present tense can not be bounded.[31] If the correlation between boundedness and inclusiveness for ISCs holds, an ISC may never be inclusive in the present tense. This is in fact what we observe. If we take a clearly inclusive sentence, like (53), and turn it into the present tense, this sentence will receive a generic (i.e. not specified for inclusiveness) interpretation – see (54):

(53) *Ieri* *si è arrivati* *tardi* *alla* *stazione*
yesterday si is arrived late at-the station
'Yesterday we arrived late at the station'

(54) *Si arriva tardi* *alla* *stazione* *(se* *si prende*
si arrives late at-the station if si takes

*quel treno)*
that train
'One arrives late at the station if one takes that train'

The same 'transformation' holds if one switches from perfective to imperfective. Imperfective is in fact also taken to realize unboundedness (see Iatridou *et al.* 2003):

(55) *Ieri* *si arrivava* *tardi* *alla* *stazione*
yesterday si arrived late at-the station
'Yesterday people arrived late at the station'

As (53)-(55) clearly show, the use of the present tense or of the imperfective aspect leads to the loss of inclusiveness.

Another clear case of 'unboundedness' occurs when modifiers like *sempre* ('always') are introduced in a perfective clause (which is bounded by definition, as Iatridou *et al.* 2003 point out). Let us consider, as an example, (49), here repeated as (56):

(56) *In quel* *ristorante* *si è* *mangiato* *bene*
in that restaurant si is eaten-pf well
'Somebody/we have eaten well in that restaurant'

The introduction of *sempre* ('always') determines the cancellation of the inclusive reading:

(57) *In quel* *ristorante* *si è* *sempre* *mangiato* *bene*
in that restaurant si is always eaten-pf well
'One has always eaten well in that restaurant'

In (57), the ISC is no longer specified for inclusiveness because the time adverbial *sempre* has deleted the event boundaries. The correlation between boundedness and inclusiveness is thus shown to hold.

As for the exact referents of the impersonal pronoun, it is worth underlining that there is significant cross-linguistic variation with respect to the referent of inclusive pronouns. Swedish *man*, for example, only refers to the speaker and not to a group including the speaker. We shall address this issue in section 5.3.2. In section 5, we will propose an analysis aimed at explaining the reason why inclusiveness and boundedness are linked. Before outlining the proposal, we shall however first consider some possible exceptions to the generalization according to which unbounded events do not allow for an inclusive reading.

### *4.2.1. Inclusive si with present tenses: an exception?*

In the previous section, we have seen that unbounded tenses, like the present tense, do not license an inclusive reading for impersonal *si*. However, there seem to be some exceptions to this generalization, which have been pointed out by many Italian speakers.

The most straightforward type of apparent exceptions are the sentences in (58) and (59):

(58) *Si va?*
si goes-3rd sg pres
'Are we going?'

(59) *Che si mangia (oggi)?*
what si eats-3rd sg pres today
'What are we going to eat today?'

In (58) and (59), the verb is in the present tense. Yet, the sentences are interpreted inclusively. This apparent exception to the generalization should be attributed to the use of the present tense in Italian rather than to its interaction with *si*. The present tense in Italian is often used to express the future, which has almost completely disappeared from most varieties (Serianni 1991, Maiden & Robustelli 2000).[32] Therefore, in sentences like (58) and (59), the present tense is not a real present tense, but is used to refer to perfective actions taking place in the future. Future tense may be telic, in the case of a future perfective action for example (see Smith & Erbaugh 2002, Giorgi & Pianesi 1997) and therefore the sentences in (58) and (59) constitute no exception to our generalization, in that they refer to bounded events and therefore trigger an inclusive reading of impersonal *si*.

To sum up, in this section we have seen that a strict correlation between boundedness and inclusiveness exists. It has been argued for an extension of Cinque's statement according to which specific time reference introduces an inclusive reading in ISCs with verbs that do not project an external θ-role. It has been shown that an inclusive reading is actually introduced in all classes of verbs with specific time reference. Moreover, it has been shown that specific time reference is not the only cause of inclusiveness, but that perfectivity also introduces an inclusive reading. Perfectivity and specific time reference have been subsumed under the greater category of boundedness, which they both imply. It has been claimed that boundedness is responsible for the inclusive reading of ISCs.

## 5. Generic vs. inclusive reading in ISCs

In section 4, it was shown that there is a strict correlation between boundedness and inclusiveness. Here, we wish to propose an explanation for these facts, which makes use of the Reichenbachian theory of tenses and of some syntactic-pragmatic functional projections, such as the Speech Act projection, as proposed by Sigurðsson (2004a), Speas (2000) and Bianchi (2001, 2003, 2006).

In 1947, Hans Reichenbach proposed a theory of tenses which involved three primitives: the Reference Time, the Event Time and the Speech Time. According to Reichenbach, both the English simple past and present perfect express temporal precedence. In particular, the simple past expresses a temporal precedence of the Reference Time with respect to the Speech Time. The simple past tense is thus represented as in (60):

(60) E, R, … S

In the past tense, the Event Time and the Reference time are contemporaneous. The English present perfect instead has the representation in (61), where the Speech Time and the Reference time are contemporaneous:

(61) E, … S, R

The Italian *passato prossimo* has some uses that are coincident with the English simple past, and some others that are like the English present perfect. As stated above, we are not concerned with the definition of the past tense in Italian (for an accurate analysis of the past tense in Italian see Bertinetto 1997, Giorgi & Pianesi 1997, and Arosio 2003). What matters for us is the idea that the event expressed by the verb needs to be in relation with the speech act.

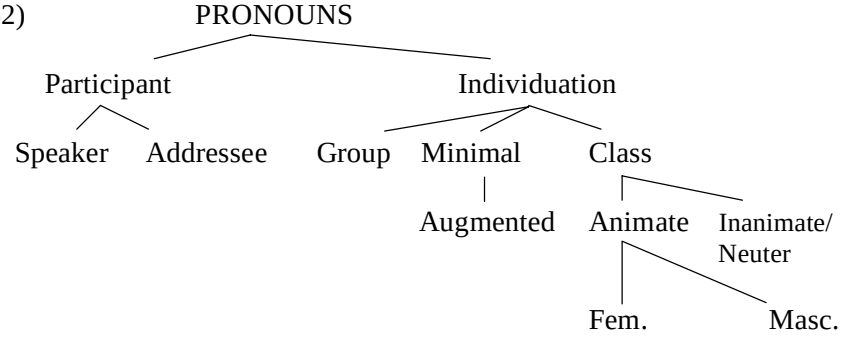
In the last years, it has become common to assume that the interpretation of tense is deictic for single sentences (Kamp & Reyle 1993, Smith 2004 among others). According to Reichenbach's theory, the past tense conveys the meaning that the Reference Time and the Event Time precede the Speech Time. This means that when no other reference time is available in the sentence (for instance in a reported speech), the event will be linked to the speech time. In other words, an event in the past tense will be considered to have taken place before the Speech Time. In the sentences proposed by Cinque, for example, the event was considered to take place *ieri*, i.e. yesterday. Yesterday is a deictic adverb, which locates the event the day before the speech time. When no other specification is present in the clause, eventualities are interpreted deictically, with respect to the here and now. This observation opens the way for the explanation of inclusiveness in ISCs.

### 5.1. The *arb* feature

Before going into the analysis, let us take another look at the feature set of impersonal *si*. In the introduction we saw that φ-features are complex, and therefore they may be articulated. In other words, some features may have what we called, for the sake of simplicity, 'sub-features', which specify further the 'main' features.

In chapter 1, we saw the feature hierarchy proposed by Harley & Ritter (2002), here repeated as (62):

(62)

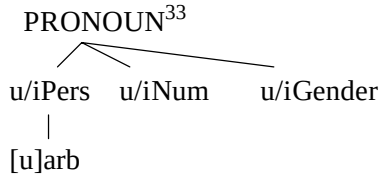



As observed in chapter 1, Harley & Ritter do not address impersonal pronouns, i.e. all those pronouns that do not have a specific referent. We wish to exploit Harley & Ritter's intuition and propose that impersonal pronouns present further articulation on the person feature. The person feature for impersonal pronouns is further specified as [arb]. The [arb] feature can only be present if a valued person feature is present, and as such it recalls Harley & Ritter's implicational feature hierarchy (see also D'Alessandro & Alexiadou (2002) for a similar proposal).

The name '*arb*' is taken from Cinque's (1988) *arb* feature. However, we should be clear about the fact that Cinque's *arb* feature is completely different from the [arb] sub-feature that we are adopting here. According to Cinque, in fact, *si* bears an arbitrary person feature, which provides the sentence with a generic or arbitrary subject. Cinque (1988) defines this *arb* feature as a syntactic person feature, which triggers 3rd person default agreement on the verb. The *arb* feature of *si* as proposed by Cinque is thus a syntactic feature that encodes semantic information on the underspecification of the reference set, and triggers 3rd person agreement. Cinque's *arb* feature is a person feature itself, it does not imply the existence of a person feature which it further specifies. Our [arb] feature,

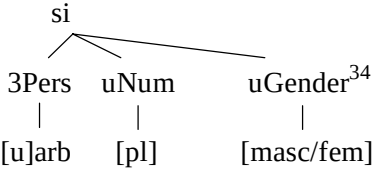
on the contrary, is a specification of a person feature, and cannot exist independently of a person feature. The structure of a feature set containing [arb] is reproduced in (63):

(63)




The feature set of *si* is therefore as follows (first approximation):

(64)




The [arb] sub-feature characterizes impersonal pronouns and is unvalued. Its valuation determines the indentification of the impersonal pronoun reference set. [arb] is a semantic-pragmatic feature, whose reflex is generally not seen in the syntax. In other words, we usually will not see the verb inflecting as 'Addressee' or '2nd person' when [arb] is valued as [Addressee] or [2nd] person. However, in some cases the valuation of [arb] does surface, giving rise to agreement mismatches, or cases of so-called semantic agreement, which we will exemplify later on in 5.1.1.

Postulating the existence of an [arb] sub-feature is not unnatural, if one thinks carefully about examples such as these:

(65)

| *Se* | *vuoi* | *fare* | *i* | *soldi,* |
|---|---|---|---|---|
| if pro-2nd sg | want-2nd sg | make | the | money pro-2nd sg |

| *devi* | *fare* | *il* | *calciatore* |
|---|---|---|---|
| must-2nd sg | do | the | football-player |

'If you want to make money, you need to be a football player'

In this case, the syntactic person feature of *pro* is clearly 2nd. This has nothing to do with the referent group that *pro* identifies. The sentence in fact means something like 'If one wants to make money, one needs to play football'. 'One' has no exact referent, and does not identify the addressee, or at least not necessarily. Jaeggli (1986) shows that languages apply some constant strategies in order to obtain an arbitrary reading, such as picking up the silent form of the pronoun. The arbitrary reading is thus determined in different ways, but it does not seem to be directly attributable to the syntactic person feature. The example in (65) clearly indicates that reference and syntactic person feature are to be taken separately.

[arb] is hence necessary to allow the pragmatic component of grammar to identify the reference set of the impersonal pronoun, and thus for the sentence to be interpretable. Some of the possible mechanisms of valuation of [arb] will be presented in this chapter. Before turning to these mechanisms, let us look at some examples of the [arb] feature at work, and some possible signs of [arb] causing agreement mismatches.

### *5.1.1. The valuation of* arb *and semantic agreement*

Munn (1999), Wechsler & Zlatić (2001), and Costa & Pereira (2003) among others have often remarked that languages like Arabic, European Portuguese and Serbo-Croatian present agreement phenomena that cannot easily be analyzed with the mere notion of syntactic agreement. Spoken European Portuguese, for example, exhibits the so-called 'mixed agreement', exemplified in (66):

(66) *A gente* *esta* *cansados*
a gente is-3rd sg tired-masc pl
'People are tired'

*A gente* is syntactically a 3rd person singular feminine pronoun. Nevertheless, it triggers masculine plural syntactic agreement on the adjective. It is quite evident that such an agreement pattern is impossible to obtain if one considers purely syntactic agreement features. The same kind of phenomenon holds in Italian ISCs, as in (67):

(67) *Si è* *belli*
si is-3rd sg beautiful-masc pl
'People are beautiful'

(67) presents what Wechsler & Zlatić (2001) define as a 'dis-agreement' between the number feature of the verb and that of the adjective. We propose that the 'dis-agreement' in question is due to the mismatch between the value on the [arb] feature and the value of the person feature. One could of course argue that the choice of a plural masculine adjective is the default choice for Italian. However, (64) seems to be rather a case of semantic agreement, which is also supported by the examples we are about to consider. A very interesting case of semantic agreement is the behavior of agreement with polite *Voi* ('You') in southern regional Italian, where the verb agrees with the 2nd person plural polite *Voi*, and the adjective or participle shows singular agreement, in accordance with the semantic feature:

(68) a. *Voi* *siete* *bella*
you-2nd pl are-2nd pl beautiful
'You are beaful'

b. *Voi* *siete* *arrivata* *tardi*
you-2nd pl are-2nd pl arrived-pp fem sg late
'You (2plur) have arrived late'

This syntax-semantics conflict is quite widespread across languages. Cases like (68) cannot be explained with the notion of default agreement. Rather, there must be some further articulation of the person feature which, once valued, creates the agreement mismatch. Observe that the [arb] feature, which characterizes pronouns such as *voi* ('you'pl.) or also *tu* ('you' sg) or *pro*, is a syntactic feature that encodes pragmatic information, and its reflex is in fact perceived in adjectival or participial agreement, which usually refer to lexical information, rather than in subject-verb agreement. Adjectival/participial features in fact include more 'semantic/pragmatic' features, such as gender and number, and do not agree for person (which is more 'grammatical').

## 5.2. *Si* as a variable

In 1995, a semantic analysis of *si* was proposed by Chierchia, which took into account various properties shared by impersonal *si* and indefinites. Chierchia showed that impersonal *si* is Italian behaves - at least partially - like an indefinite. Indefinites are defined, according to classical DRT, as exhibiting the following properties [from Chierchia (1995a: 11)] (see Kamp 1981 and Heim 1982):

(69)

[i.] Indefinites have no quantificational force on their own. They are, in this respect, like free variables.

[ii.] The quantificational force of indefinites is determined by the first available binder, that is, the lowest c-commanding quantifying determiner (*every*, *no*, *most*, ... or adverb of quantification (*always*, *usually*). These quantifying elements are unselective. They bind all free variables in their domain.

[iii.] A binder Q sets up a tripartite structure of the form Q[A][B], where A is the restriction of the binder and B its nuclear scope.

[iv.] A rule of existential closure assigns existential force to indefinites that are not otherwise quantified.

According to Chierchia, *si* introduces a variable *x* which ranges over a group of humans. In the previous section, we proposed that *si* bears an [arb] sub-feature, which needs to be valued in order for the sentence to be interpretable. In Chierchia's terms, this is equivalent to saying that *si* introduces a person variable *x*, which ranges over humans. The [arb] feature is thus, on the semantic side, a variable which needs to be bound (and thus receive a value) in order for the sentence to be interpreted (see also Manzini 1986 for an analysis of *si* as a variable).

According to Chierchia, the existential reading of *si* is obtained when the generic (Gn) operator is absent. Chierchia proposes the following examplification of his observation:

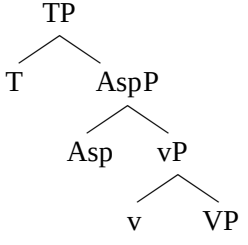
(70) *Che cosa è successo ieri in campeggio? Si è cantato*
what is happened yesterday in campground si is sang
'What happened yesterday in the campground? There were people singing'

In (70), no generic operator is present and *si* receives an existential interpretation. In other words, the lack of Gn brings about the existential reading of *si*.[35] We will return to the existential reading of *si* in section 5.3. For the moment, we may concentrate on the generic-inclusive alternation.

According to Iatridou *et al.* (2003), there exists a syntactico-semantic feature [unbounded][36] which is realized by progressive and imperfective morphology, and a syntactico-semantic feature [bounded] that is realized by the perfective morphology. These features are present on the Aspectual head: when imperfective/progressive morphology is present, Asp presents an [unbounded] feature.[37] When the sentence is [bounded], no such an operator is present.

The structure we adopt is in (71):

(71)

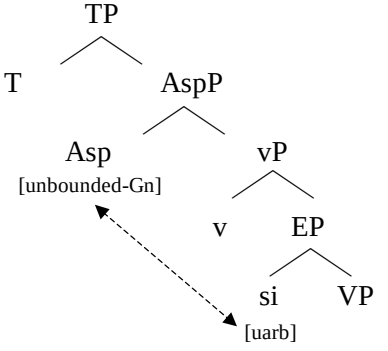



In (71), *Asp*P encodes sentential aspect, whereas inner aspect is encoded in the *v*P, as shown in chapter 2. Building on Chierchia's analysis and on Iatridou *et al*'s proposal, we shall propose that the [unbounded] feature acts as Chierchia's generic operator, which binds the [arb] feature. *Si* receives a generic interpretation when the [unbounded] feature is present: in the present tense, with imperfective aspect, or when time adverbials like *always* are present in the clause.

When the unbounded feature is absent, i.e. when the sentence is perfective or when an adverb introduces a specific time reference, i.e. introduces boundedness, *si* may not be bound by the generic operator [unbounded]. This forces it to be bound by the Speech Act operator, which is present on the Speech Act head, as we will see in the next section.

So far, we have maintained that the [unbounded] feature proposed by Iatridou *et al.* (2003) is the syntactic counterpart of the generic operator Gn proposed by Chierchia (1995b). Such a generic operator binds *si* when the sentence is unbounded, thus providing the sentence with a generic interpretation.

(72)




In (72), the variable [arb] is bound by the Gn operator, and is valued as generic. In feature terms, [arb] is valued by the *Asp* head as generic.

It is worth observing that the feature valuation mechanism shown in (72) does not resemble the valuation mechanism we have been using so far. In fact, so far, we have always had unvalued feature bundles probing down (in the c-command domain) for valued features. In (72), it looks as if the unvalued feature [arb] is probing upwards. However, [arb] is a feature that encodes pragmatic information, whose value is rarely reflected in morphological agreement, as we have seen. Moreover, unvalued features, when they are 'visible' are in a way active, and therefore they are acting as probes.[38] This 'reverse' valuation mechanism resembles Case valuation. In the case of impersonal pronouns, we have seen that the [arb] feature acts semantically as a variable, and therefore it needs to be bound by an operator. This means that [arb] is somehow visible/active for semantic/pragmatic reasons. We might speculate that this form of 'reverse' Agree is thus available only for those features that are in a configuration that is directly relevant for semantic interpretation, such as operator-variable binding, anaphoric binding (see also a recent proposal by Gallego & Uriagereka 2006), focalization, and so on. In particular, we have seen that [arb] is the syntactic counterpart of a semantic variable, which needs to be bound by an operator. Hence, we can admit 'reverse' feature valuation in a context like (72), where one active unvalued feature is in the c-

command domain of a valued feature. For similar ideas on Agree, the reader is addressed to Pesetsky & Torrego (2001) and subsequent work.

### 5.3. Boundedness and the speech act

When the predicate is bounded, the [unbounded-Gn] operator is not there. This means that the variable *si* may not be bound. It therefore needs to receive its specification from elsewhere.

In the past tense, i.e. when the event is bounded, *si* actually behaves as a definite personal pronoun (cf. Chierchia 1995b, Alonso-Ovalle 2002). To demonstrate this, let us consider the inclusive-with-predicative NP construction. This construction licenses a definite pronoun, but does not license an indefinite, as examples (73)-(74) show:

(73) *Noi, da bravi cittadini, abbiamo raccolto le*
we as good citizens have collected the

*firme contro la centrale nucleare*
signatures against the plant nuclear
'We, as good citizens, have signed a petition against nuclear power plants'

(74) *Qualcuno, da bravo cittadino, ha raccolto le*
somebody as good citizen has collected the

*firme contro la centrale nucleare*
signatures against the plant nuclear
'Some people, as good citizens, have signed a petition against nuclear power plants'

Inclusive *si* is also licensed in these contexts:

(75) *Da bravi cittadini, si sono raccolte le*
as good citizens si are collected the

*firme contro la centrale nucleare*
signatures against the plant nuclear
'As good citizens, we have signed a petition against nuclear power plants'

(73)-(75) show that inclusive *si* behaves like a definite personal pronoun. If *si* is a personal pronoun in this context, it needs to identify its reference. In other words, it needs to have its [arb] person feature valued. We may argue that the person feature receives its specification through a mechanism of 'person valuation' along the lines of that proposed by Bianchi (2003, 2006) and Sigurðsson (2001).

Recently, several approaches to syntactic analysis have been proposed which focus on the notion of person checking rather than Case checking (Bianchi 2001, 2003, 2006, Di Domenico 2002, Sigurðsson 2001, 2004a,b, Speas 2000, 2004). The main features of such approaches are summarized by Bianchi (2003) along the following lines:

- The person feature is intrinsically deictic. This means that it needs to be linked to the speech act for its interpretation.

- First person refers to the Speaker, second person to the Addressee, and third person to someone else, who does not participate in the speech act.

- It is necessary to anchor the person feature of pronouns to a specific speech event/situation in order for the interpretation of a sentence to be possible.

- The speech event/situation is syntactically encoded in one or more functional heads in the clause.

According to Sigurðsson (2002, 2004c), the person feature establishes the relationship between the participant of the speech event, encoded in the Speech Phrase, and the participants of the event (i.e. the arguments of the verb). Specifically, according to Sigurðsson (2004c), the clausal structure has three feature domains, illustrated in (76):

(76) [$_{CP}$... Speech Features [$_{TP}$ ... Grammatical Features [$_{vP}$...Event Features]

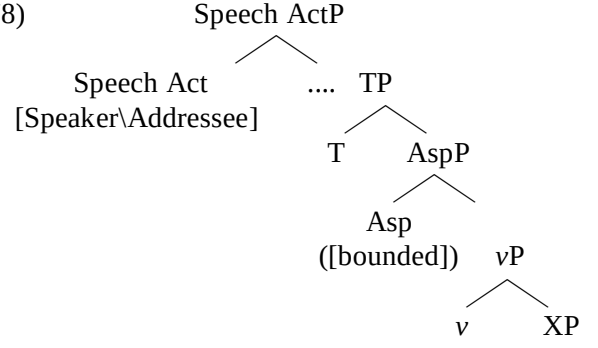
Speech features (Λ-features) are logophoric features, and encode the information about the event participants. Grammatical features (φ-features) encode grammatical participant features, whereas Event features (θ-

features) characterize the event participants. φ-features have the task of relating θ-features and Λ-features, according to the scheme in (77):

(77) Λ-features ↔ φ-features ↔ θ-features

For Sigurðsson, any clause matches its θ/φ-elements against the logophoric agent vs. patient features. We may capitalize on this proposal in order to provide an explanation for inclusiveness in bounded ISCs. The intuition is that when the Gn operator (i.e. the [unbounded] feature) is missing, the person feature needs to be anchored to the speech event to be interpretable. This means that [arb] needs to be valued by the features that are present on the Speech Act head. For the sake of simplicity, we may simply assume a single Speech Act head, encoding both [Speaker] and [Addressee], i.e. bearing the [Speaker] and [Addressee] Λ-features, to say it with Sigurðsson (see also Bianchi 2003). The structure we will adopt is the following:

(78)




Observe that this featural system is highly simplified compared to the system proposed by Speas (2000, 2004), where the participants in the speech act are classified according to the criteria of 'participation' and 'prominence'. The use of such fine-grained criteria would complicate this analysis considerably, and it would not add much to the general discussion. Thus, the Speech Act simply bears valued [Speaker]/[Addressee] features.

The Speech Act Phrase encodes information about the actual participants in the speech act. If the argument of an event is a first person pronoun, this pronoun will receive its specification by being 'anchored' to the Speech Act projection. Bianchi (2003) oulines a feature checking model to allow this specification to be achieved. She proposes that the 1st/2nd person feature on a pronoun needs to be checked against the Speech Act phrase in order for the pronoun to be deictically interpretable. We follow

this hypothesis and propose that the Speech Act head bears a person feature which is valued as [Speaker]/[Addressee], where [Speaker]/ [Addressee] refer to the actual participants to the speech act. When a 1st person pronoun is present in a clause, it will be bound by the Speech Act head, which will assign to it the value 'actual speaker'/ 'I'. When a 2nd person pronoun is present in a sentence, it will be assigned the deictic value 'actual addressee'/ 'you'. To formalize this idea, we might postulate the existence of a [deictic] sub-feature on personal pronouns, which needs to be valued by the valued features on the Speech Act head. The [deictic] sub-feature is in complementary distribution with [arb]. If the person feature of a pronoun is further articulated as [arb], the pronoun will be impersonal, and its valuation mechanism will be like the one we are proposing in this chapter for *si*. If the person feature on a pronoun is further articulated as [deictic], its value will be specified by the Speech Act head. Again, we assume that if an unvalued feature is in the c-command domain of a valued feature, its value can be copied downwards, provided that the unvalued feature is visible for some reason, even if it not a probe.

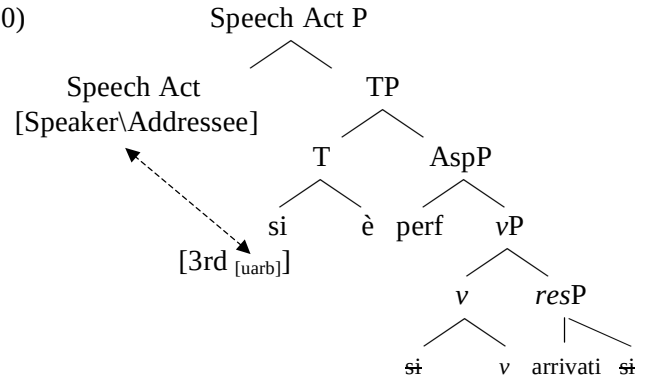
Going back to *si*: as proposed above, *si* has an unvalued [arb] person sub-feature. When *si* behaves as an indefinite, it introduces a person variable which needs to be bound by an operator in order for the reference set to be uniquely identified. On the syntactic front, this means that the sub-feature [arb] is valued by the Gn feature that the *Asp* head bears. The result is a generic reading. When *si* behaves as a pronoun, it needs to be bound by the Speech Act to be interpreted. This means that the [arb] feature needs to be valued by the valued person feature on the Speech Act head. As a result, its sub-person feature is valued as [Speaker/Addressee]. Thus, *si* is interpreted as inclusive (because it includes the speaker and the addressee).

Let us consider the sentence in (79):

| | | | | |
|---|---|---|---|---|
| (79) | *Ieri* | *si è arrivati tardi* | *alla* | *stazione* |
| | yesterday | si is arrived late | at-the | station |
| | 'Yesterday we arrived late at the station' | | | |

(79) has the structure in (80):

(80)




According to the structure in (80), the [arb] sub-feature is valued when *si* is on T. This is not really relevant, and it might well be the case that *si* is directly valued where it is first-merged. In (80), in fact, the first phase head is C, and therefore the Speech Act head, T, *v*, and *res*P are in the same spelling domain, according to the Phase Impenetrability Condition (PIC), repeated here in (81):

(81) Phase Impenetrability Condition (PIC): In a phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

[Chomsky 2000:108]

In those cases when *v* is a phase head, however, like in transitive contexts, the valuation site of [arb] does matter. However, if we recall the various configurations in which *si* occurs, we see that:

- with transitive verbs when V-O agreement holds: *si* is merged in *res*P but *v* is not a phase head (T agrees with the object, see chapter 2). Hence, the valuation site of [arb] does not matter.

- with transitive verbs when V-O agreement does not hold: *si* is merged in spec, *v*, and therefore it is on the edge of the phase and hence visible for valuation from the Speech Act head (see chapter 2).

- with unergative verbs, *si* is merged as an external argument, and therefore it is on the edge of the *v*P phase, and hence visible for valuation from the Speech Act head.

- with unaccusative verbs, as we have just seen, *si* is merged as an internal argument but *v* is not a phase head, and therefore *si* is visible for valuation from the Speech Act head.

Since we do not have a cyclicity requirement, and the phase edges are not relevant in the case of [arb] valuation, we can simply postulate that [*arb*] is valued as soon as *si* is merged. The diagram in (80) is thus drawn that way only for expository purposes.

The valuation of [arb] makes *si* referential. This is most likely also the reason why it can receive Accusative case in transitive sentences with V-O agreement despite its syntactic (φ-) incompleteness.

To conclude: valuation of the [arb] person sub-feature on *si* is performed by the Speech Act. This valuation determines the reference set of *si*. This happens when the event is [bounded], and therefore when the Gn operator which corresponds to Iatridou *et al.* 's [unbounded] feature is absent, and *si* is not an indefinite. The Speech Act head encodes deictic information, i.e. attributes the value [Speaker]/[Addressee] to the pronouns according to the actual participants in the speech act.

The problems that now remain are the following: firstly, we have seen that verbs which license an external θ-role present an existential interpretation in addition to the inclusive one. This additional interpretation is not available for unaccusatives, psych verbs, passives, raising verbs, and all those verbs that do not have an external θ-role. This problem is addressed in the next section. Secondly, there are some varieties, like Tuscan, that never have an exclusive reading. For Tuscan speakers, *si* may never have an existential/exclusive interpretation. A possible explanation for this problem is offered in section 5.4.

### *5.3.1. Logophoricity*

If the Speech Act is involved in the interpretation of inclusive *si*, one would expect that in cases of reported speech the ‘reporting’ speaker/addressee would be involved, but not the person who actually utters the sentence. Assuming that the Speech Act projection encodes information about the

speaker and addressee in the reported speech, the prediction is thus that *si* in reported speech does not look for deictic reference but gets bound by the 'reporting' speaker/addressee. This prediction is borne out, as the following example shows:

(82) *Maria e* *Gianni* *hanno* *raccontato* *che si era*
Maria and Gianni have told that si was

*mangiato bene in quel* *locale*
eaten well in that place
'Maria and Gianni have told that they had eaten well in that place'

The interpretation of *si* in (82) is logophoric. *Si* refers back to the 'reporting' speaker, i.e. to the person who reports what happens, rather than to the person who utters the whole sentence. (81) provides evidence for the fact that *si* receives its inclusive interpretation by being anchored to the speech act, i.e. that the [arb] feature on *si* is valued as [Speaker/Addressee], which are the values of the person feature on the Speech Act head.

### *5.3.2. Split antecedent binding*

As stated above, the inclusive reading is not univocal cross-linguistically. Inclusive pronouns may refer to a group including the speaker, as in Italian ISCs, or to the speaker only, as in Swedish *man* constructions. This suggests that the participant nodes are parametrically distributed.

As just said, Egerland (2003a,b) shows that Swedish *man* may refer to the speaker only. In a sentence like (83), *man* is interpreted as a 1st person pronoun ('I')

(83) *I går* *på* *eftermiddagen* *blev* *man* *avskedad*
yesterday at afternoon was man fired
'Yesterday afternoon I was fired'

[Egerland (2003a; 1)]

We take the difference in interpretation between Italian *si* and Swedish *man* to be the result of a different encoding of the speech act information in the syntactic structure. Swedish arguably has two different nodes for [Speaker] and [Addressee], while Italian has only one. If the [Speaker] node is lower

than the [Addressee] one, then the [arb] feature on *man* will be valued as [Speaker], because of closest c-command. Thus, *man* will be interpreted as 'I'. Alternatively, *man* might bear a [deictic] feature, as proposed in 5.2. for personal pronouns. However, this is quite unlikely, since *man* also has a generic value, just like *si*, and therefore it must bear a feature [arb], which we conceived as being in complementary distribution with [deictic].

Another way to explain the difference between the different inclusive readings of *si* and *man* would be to say that the 'we' reading of *si* may be obtained through split-antecedent binding. Italian might also have a head for [Speaker] and a head for [Addressee], and these two heads might bind the personal pronoun together. In other words, these heads might both value the [arb] feature on *si*. This is similar to the so-called split antecedent phenomenon illustrated in (84):

(84) *Peter asked Mary whether they could go to school together*

Thus, *si* might receive its value via split binding by the Speaker and by the Addressee heads distinctly. The split-antecedent valuation approach has both advantages and disadvantages. The advantages of using a split-antecedent valuation would be that the parallelism between this valuation and antecedent binding would be more visible. We have proposed, in fact, that this kind of 'reverse' Agree, where the Goal c-commands the Probe and not viceversa, is possible when a relation holds between the Goal and the Probe which is directly relevant for semantic interpretation. A split-antecedent valuation is parallel to a split-antecedent construction like (84), where a pronoun is bound by two DPs. The postulation of a split-antecedent valuation would however entail the possibility of having 'reverse' Multiple Agree. In other words, the Goal (the [arb] feature) would be valued by two Probes (the [Speaker] feature on the Speaker head, the [Addressee] feature on the Addressee head), and the two values would co-exist on the [arb] feature. This seems to be a completely unwelcome result. However, the [arb] feature ends up being valued for [Speaker] AND [Addressee] anyway. This is a case of disjunctive feature valuing, which we introduced in chapter 1, and which we discuss in the following section.

*5.3.3. Disjunctive features*

In the last section, we saw that the [arb] sub-feature of *si* is valued as [Speaker/Addressee]. In other words, *si* refers to the speaker and the addressee together. The [arb] feature on *si* is thus disjunctive, according to the definition proposed in the introduction, and here repeated as (85):

(85) A disjunctive feature is a feature that includes all the possible values for that feature.

The phenomenon of 'disjunctivity' is not as unnatural as one might be tempted to think. A very straightforward example of a disjunctive feature is the Italian word *insegnante* ('teacher'). Consider the examples in (86) and (87):

| | | | |
|---|---|---|---|
| (86) | *L'insegnante* | *è* | *brava* |
| | the-masc/fem teacher-masc/fem | is-3rd sg | good-sg-fem |
| | 'The teacher is good' | | |

| | | | |
|---|---|---|---|
| (87) | *L'insegnante* | *è* | *bravo* |
| | the-masc/fem teacher-masc/fem | is-3rd sg | good-sg-masc |
| | 'The teacher is good' | | |

The noun *insegnante* triggers feminine agreement in (86) and masculine agreement in (87). Does this mean that *insegnante* does not have a gender feature? Certainly not. We saw that nouns in Italian carry the feature gender and number. We must conclude that *insegnante* carries both values: masculine and feminine. In other words, it holds a disjunctive gender feature. The values 'masculine' and 'feminine' are selected, in turn, by a 'matching' mechanism which resembles the one proposed by Sigurðsson (2004a) and reported in 5.3. The gender φ-features acquire their specification by being valued according to the semantic gender of the event participants, encoded in the C domain. We will not address this issue any further, but for a detailed description of the features encoded on heads in the C-domain, the reader is addressed to the various works on the cartographic approach (Rizzi 1997, 2004, Belletti 2004, and Poletto 2000 among others).

Other cases of disjunctive feature valuation take place in split-antecedent binding contexts, such as the one that we saw in (84) for

instance. Hence, we can conclude that disjunctivity is an option, but it only holds for sub-features, i.e. for those features which are further embedded into a φ-feature set, and are D-linked.

## 5.4. The exclusive-inclusive interpretation of *si*

In 5.3., we analyzed in depth the inclusive reading of impersonal *si*. We have claimed that the inclusive reading arises when no Gn feature can value the [arb] sub-feature on *si*, and hence the [arb] feature of *si* must be valued by the features on the Speech Act head. These features are person features, which are valued as [Speaker] and/or [Addressee] depending on the context of the utterance, and consequently value the [arb] feature on impersonal pronouns or the [deictic] feature on personal pronouns. Most of the time, when the event is bounded, *si* is interpreted inclusively, i.e. including both the speaker and the addressee in the reference set. However, it is also possible that *si* includes only the speaker in the reference set, which instead excludes the addressee, as in

(88) *Mentre tu eri a casa, si è andati a ballare*
while you were at home si is gone to dance
'While you were sitting at home, we went dancing'

In (88), *si* is inclusive (of the speaker) but exclusive (of the addressee). In this case, we can claim that *si* is bound only by the Speaker head, and that no split-antecedent valuation takes place. The features encoded on the Speaker/Addressee head vary due to the different contexts and discourse requirements. It is worth noticing, however, that *si* in these sentences always refers to a group of people. This means that the reference set of impersonal *si* in these sentences is made up of more than one person. In the case of inclusive sentences, like the ones we are considering now, therefore, the reference set of *si* is made up by the speaker plus someone else. We need to articulate the issue of the plurality of the reference set of *si* in more detail. We do this in the next chapter.

### 5.5. The existential reading of *si*

As shown in 2.2., *si* may receive an additional existential/exclusive reading with verbs that project an external θ-role, under boundedness. Cinque (1988, 1995) attributes the possibility of acquiring an existential reading to the presence of the external θ-role. This external θ-role is compatible for some reason with an existential reading. Cinque (1988), who develops his analysis in the Goverment and Binding framework, follows Jackendoff (1972) by claiming that for an element to receive an existential interpretation, it must be in the specifier of the Infl projection (nowadays TP) at D-structure. The generic interpretation is instead obtained at S-structure, i.e. after movement to the specifier of Infl. Hence, once the internal argument of an unaccusative verb has moved to the subject position, it may only obtain a generic (or inclusive) interpretation. The analysis of de Miguel (1992) for Spanish *se* is along the same lines.

Mendikoetxea (2002), however, points out that both Cinque and de Miguel's analyses only present descriptive generalizations, and that the real cause of the restriction on the existential reading remains unknown. She proposes an alternative analysis according to which the presence of an external θ-role is not what makes the difference with respect to the possibility of ISCs obtaining an existential reading. She suggests rather that the possibility of obtaining an existential reading is connected to the individual vs. stage-level nature of predicates.

We wish to propose instead that the possibility of an additional existential reading is provided by the *Aktionsart* of transitive and unergative verbs. Transitive and unergative verbs usually denote activities or states, and are therefore inherently atelic, or unbounded. We saw that the introduction of a sentential temporal boundary triggers an inclusive interpretation, and in this case *si* behaves as a definite.

The fact that activities and states are inherently unbounded forces the indefinite behavior of *si*. Unboundedness is in fact compatible with indefiniteness, but not with definiteness, as we have seen. An indefinite thus obtains a simple existential reading when it appears in a bounded sentence. Unaccusative verbs are instead usually inherently bounded, and therefore they may not behave as indefinites and receive a simple existential reading, not specified for inclusiveness. This observation becomes more straightforward is one considers transitive accomplishments, like the one in (89):

(89) *Ieri* *si sono* *letti tutti e* *tre i*
yesterday si are read all and three the

*libri* *rimasti*
books left
'Yesterday we read the three books that were left'

(89) has a clearly inclusive reading, despite the fact that it is a transitive ISC. As we saw in chapter 2, consumption verbs become telic if the internal argument is a definite DP (Ramchand 2006). Thus, the VP here is telic, and this telicity triggers inclusiveness. Boundedness and telicity usually go together. However, in those contexts in which transitives and unergatives are bounded but not telic, we have only the existential reading for *si*. In other words, it seems to be the case that atelicity interacts with boundedness for the interpretation of impersonal pronouns, preventing the fully inclusive reading from arising.

## 5.6. When boundedness does not count: 'Exclusively inclusive' *si* in Tuscan and Finnish

To have a clearer picture of inclusiveness, it is worth taking a look at two languages that are totally unrelated to each other, but present the same phenomenon, namely the 'exclusively inclusive' reading of some impersonal constructions. The two languages at issue are spoken Finnish and Florentine. In spoken Finnish, an impersonal construction is used to identify a group of people including the speaker. Spoken Finnish does not allow for any exclusive or generic reading of impersonal constructions. The impersonal construction is interpreted as having 'we' as a subject, as exemplified by (90):

(90) *Me mennään* *kauppaan*
we go-impers shop-illat
'We go to the shop'

Spoken Finnish has lost the 1st person plural ending of the verb. It only makes use of the so-called impersonal-passive form of the verb to convey an inclusive reading. (90) may be compared with (91), an example taken from written Finnish:

(91) *Me* *menemme* *kauppaan*
we-1st pl go-1st pl shop-ill
'We go to the shop'

In (91), the 1st person plural form of the verb is used to identify an inclusive reference set, while in (90), an impersonal form is used with the same aim.

The same phenomenon takes place in the dialects of Tuscany in general. For Tuscan speakers, ISCs are always inclusive, as example (92) shows:

(92) *In quel* *ristorante* *si* *mangiava* *bene*
in that restaurant si ate well
'In that restaurant we used to eat well'

(92) has only an inclusive interpretation with specific time reference. The phenomenon of inclusive impersonal constructions is quite widespread. We propose that *si* in Tuscan has undergone a reanalysis, having as a result the selection of only one of the available meanings for *si* (cf. Hopper & Traugott 1993, Bybee, Perkins & Pagliuca 1994, and Roberts & Roussou 2003). Tuscan (and probably spoken Finnish as well) are the endpoints of a process which starts from the generic + existential + inclusive readings and selects the inclusive reading as the only available one. In other words, the inclusive use has generalized. In fact, the construction with the 1st person plural form of the verb is no longer in use in Florentine. This re-interpretation might be a case of grammaticalization and as such it should involve a period where both forms (the existential and the inclusive) co-existed. Interestingly, we find different stages of this process of reanalysis instantiated in the world's languages, occasionally depending on the register. In spoken Finnish, for example, the process of reanalysis is completed, while written Finnish is still at the stage of having two coexisting forms. Another interesting case is French, which is losing the 1st person plural form. This is almost always replaced by the impersonal *on* construction (see Kayne 1975 among others).

We do not wish to articulate this discussion any further, because discussing the historical development of the exclusively inclusive reading would take us too far afield. The reader is however addressed to D'Alessandro (2006) and D'Alessandro & Alexiadou (2003b, 2006) for a

detailed discussion of the grammaticalization of impersonal pronouns in several Romance varieties.

To sum up, Tuscan ISCs are not sensitive to the interpretational rules outlined in this chapter for Standard Italian. Impersonal *si* in Tuscan has undergone a reanalysis which has selected the inclusive interpretation as the only available one.

## 6. Conclusions

In this chapter, it was shown that the interpretation of ISCs is a very complex phenomenon.

To start with, a very strong idiolectal variation affects the interpretation of ISCs. Then, sensible diatopic variation also seems to be present in the interpretation of ISCs. The interpretation of ISCs varies between a generic reading and an inclusive one, i.e. one where the speaker is included among the referents of the impersonal pronoun. Provided that some general interpretative rules are at work, it was shown that the selection of one or the other available reading mainly depends on the boundedness of the event. If the event is bounded, impersonal *si* receives an inclusive interpretation. If it is unbounded, the interpretation it receives is generic. It was proposed that *si*, like all impersonal pronouns, bears an unvalued person sub-feature, [arb], which needs to be valued according to the pronoun referents. Its valuation takes place in two ways: if the event is unbounded, a Gn feature is present on the aspectual head. This Gn feature values the [arb] feature, which acquires the value 'generic'. When this Gn feature is absent, i.e. when the event is bounded, [arb] is valued by the Speech Act head, which bears [Speaker] and/or [Addressee] person features. We also discussed the possibility that a feature may be valued by two distinct heads, and 'reverse' Agree was also addressed. For pragmatic features, in fact, the Probe and the Goal are reversed, i.e. a valued feature values an unvalued feature which is in its c-command domain, much like in Case valuing, but without any trigger. It was argued that this kind of 'reverse' Agree can take place when the Probe and Goal are in a configuration which is directly relevant for semantic interpretation, i.e. when they are visible to each other because they are in a sort of semantic dependency, like pronominal or anaphoric binding.

The exclusive interpretation was also addressed. It was shown that in most cases the excusive/existential interpretation is brought about by the inner aspectual specification of the event.

Finally, some examples of an exclusively inclusive interpretation of impersonal pronouns were examined.

# Chapter 5
# Past participle agreement in impersonal *si* constructions

In the previous chapters, we have seen how the peculiar agreement patterns and restrictions of ISCs are determined by the interaction of several factors. Specifically, in chapter 2 we saw that the agreement patterns of transitive ISCs are determined by their inner aspectual specification. In chapter 3, it was shown that the person restriction on the Nominative object is a direct consequence of the structure of transitive ISCs. Chapter 4 addressed the problem of interpretation, and we saw that several different interpretations are available for ISCs. These interpretations, and in particular the inclusive reading which we examined in detail, are a consequence of the aspecual specification of the clause. The phenomena examined in chapters 2 and 3 are therefore somehow related to inner aspect, whereas the phenomena examined in chapter 4 are related to sentential aspect.

This chapter addresses the problem of past participle (pp henceforth) agreement in transitive, unergative, and unaccusative ISCs, as well as on predicative ISCs, and draws on all the previous chapters. In this chapter, we will see that the pp agreement facts are determined both by the core syntactic configuration of ISCs that we analyzed in chapters 2 and 3 and by the semantico-pragmatic information that we examined in chapter 4.

## 1. Past participle agreement in ISCs

The agreement patterns in the present perfect (*passato prossimo*) of ISCs are very peculiar. Unergative and unaccusatives ISCs are marked by different pp agreement patterns: unergative verbs require a singular (masculine) past participle, while unaccusatives require a plural (masculine) pp, as shown respectively in (1) and (2):

(1) *Si è telefonato*
si is-3rd sg called-pp masc sing
'They/we have called'

(2) *Si è* *arrivati*
si is-3rd sg arrived-pp masc pl
'They/we have arrived'

With transitive verbs, the agreement patterns reflect the agreement patterns of the present tense: the auxiliary may agree with the object, or it may not. The 'standard' paradigm used is reproduced in (3) below. In (3), both the auxiliary and the pp agree with the object. More precisely, the pp shows number and gender agreement with the object, and the auxiliary shows number and person agreement with it.

(3) *Si sono* *mangiati* *gli* *spaghetti*
si are-3rd pl eaten-masc pl the-masc pl spaghetti-masc pl
'Somebody/we have eaten spaghetti'

(3) exemplifies the past tense for ISCs with V-O agreement. Meanwhile, in ISCs without V-O agreement, neither the auxiliary nor the past participle agrees with the object. This paradigm is illustrated in (4).

(4) *Si è* *mangiato* *spaghetti*
si is-3rd sg eaten-pp masc sg spaghetti-masc pl
'Somebody ate spaghetti'

Surprisingly, for some speakers, the version in (5) is also acceptable. In (5), the auxiliary does not agree with the object while the past participle does.

(5) *Si è* *mangiati* *gli* *spaghetti*
si is-3rd sg eaten-pp masc pl the-masc pl spaghetti-masc pl
'Somebody has eaten spaghetti'

Finally, predicative ISCs present an agreement pattern which mirrors that of unaccusative ISCs: the auxiliary shows singular default agreement, while the adjective is plural, as (6) shows:

(6) *Se* *si è* *belli,* *si è*
if si is-3rd sg handsome-masc pl si is-3rd sg

*di solito* *anche* *ricchi*
often also rich-masc pl
'If one is handsome, one is usually also rich'

In this chapter, a study of the agreement patterns listed above is proposed, which builds on the analyses put forward in the previous chapters and on a novel analysis of past participle agreement in Italian recently suggested by D'Alessandro & Roberts (2007a). In section 1.1., the general patterns of pp agreement in Italian are summarised. Section 1.2. outlines the recent analysis of pp agreement in Italian proposed by D'Alessandro & Roberts (2007a). Sections 1.3 and 1.4 address the problem of past participle agreement in transitive ISCs. In section 2, an analysis of the unaccusative-unergative puzzle is provided. Section 3 addresses some remaining cases of agreement mismatch. Finally, section 4 contains the conclusions.

## 1.1. Past participle agreement in Italian

In a paper on past participle agreement, Belletti (2001, 2005) enumerates the syntactic configurations that give rise to pp agreement in Italian. In this section, I reproduce Belletti's data and present some considerations which open the path for the analysis of pp agreement in ISCs. For a more detailed description of pp agreement phenomena in Italian see also Burzio (1986), Kayne (1989a), La Fauci (1994), and Loporcaro (1998, 2006).

Belletti (2001) shows that pp agreement in the past tense obtains in Italian in the following syntactic contexts:

- With unaccusative verbs:

(7) *Maria* *è* *partita*
Maria-fem sg is-3rd sg left-pp fem sg
'Maria has left' [from Belletti (2001:3:2)]

- With passive morphology:

(8) *Maria* *è* *stata* *assunta*
Maria-fem sg is-3rd sg been-pp fem sg hired-pp fem sg
'Maria has been hired' [from Belletti (2001:3:3)]

- Under direct object cliticization:

[i.] obligatorily for the 3rd person:

(9) *L'ho* *vista/* **visto*
her-cl acc sg fem-have-1st sg seen-pp sg fem/ seen- sg masc
'I have seen her' [from Belletti (2001:3:4a)]

[ii.] optionally with the other persons:

(10) *Mi* *ha* *vista/*
me-cl acc 1st sg has-3rd sg seen-pp sg fem/

*visto*
seen-sg masc
'He has seen me' [from Belletti (2001:4:5a)]

- With reflexive/reciprocal clitics:

(11) *Mi* *sono* *guardata* *allo*
me-cl acc 1st sg am-1st sg watched-pp sg fem at-the

*specchio*
mirror
'I have watched myself in the mirror' [from Belletti (2001:4:6a)]

- With impersonal passive *si*:

(12) *Si sono* *costruite* *molte* *case*
si are-3rd pl built-pp pl fem many-pl fem houses-pl fem
'People have built many houses' [from Belletti (2001:4:7)]

Based on the analysis of the above data, Belletti proposes a very important generalization, which is the starting point for our analysis:

(13) **Belletti's generalization**: Past participle agreement involves arguments belonging to the lowest level of the VP projection, typically the direct object. It does not involve 'external' arguments.
[from Belletti (2001:21)]

Moreover, building on Cinque (1999), Belletti provides evidence that shows that the passive pp remains low in the structure, inside the VP. The passive pp may in fact follow the adverb *bene* ('good'), which, according to Cinque, signals the edge of the VP:

(14) *Questo* *genere* *di spettacoli* *è*
this kind-sg masc of shows is-3rd sg

*stato* *sempre bene* *accolto*
been-sg masc always well received-masc sg
'This kind of show has always been well received'
[from Belletti (2001:22:44c)]

Belletti's generalization in (13), together with the last observation about the low position of passive pp, provides u with enough means to analyze pp agreement in ISCs. Before that, however, we need to introduce a recent proposal made by D'Alessandro & Roberts (2007a) on pp agreement in Italian.

## 1.2. Past participle agreement in Italian and defective phases

As we have seen, pp agreement takes place in Italian with internal arguments. Specifically, pp agreement takes place with internal arguments that are promoted to subject position. In transitive sentences, the pp does not agree with the unmoved internal argument, but it does agree with it as soon as it cliticizes. This was captured by Kayne's (1989) analysis, which states that agreement is triggered by moving the internal argument through the specifier of a dedicated agreement projection, AgrOP. The internal argument, being in a Spec-head relation with the past participle in AgrO, agrees with it. With this analysis, Kayne explains the generalization proposed by Belletti and here repeated in (13), and the correlation between movement and agreement. However, as noted by D'Alessandro & Roberts

(2007a) among others, Kayne's Spec-head analysis is incompatible with the minimalist framework as developed in the last few years, and in particular with the definition of Agree that we are using in this book.

Starting from the fact that pp agreement is related to movement, D'Alessandro & Roberts propose that overt morpho-phonological agreement obtains when a Probe and a Goal in an Agree relation are in the same Spell-out domain. More specifically, they propose the following condition on the morpho-phonological realization of agreement:

(15) Given an Agree relation A between Probe P and Goal G, morphophonological agreement between P and G is realised iff P and G are contained in the complement of the minimal phase-head H.

(16) XP is the complement of a minimal phase head H iff there is no distinct phase head H' contained in XP whose complement YP contains P and G.

[from D'Alessandro & Roberts (2007a: 7)]

In other words, morpho-phonological agreement takes place, like other processes, within the complement of a phase head, as defined by Chomsky's Phase Impenetrability Condition (see also Richards 2004, Biberauer & D'Alessandro 2006 and Bobalijk 2006, and Kratzer & Selkirk 2007):

(17) For a strong phase HP with head H, the domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations.

[from Chomsky (2001: 13)]

(15)-(16) also mean that when Match+Agree has taken place but the past participle and the DP object are not sent to Spell-Out together, PF assigns a default agreement ending to the past participle. Observe that this does not contradict our proposal on default valuation, since we are dealing with morpho-phonological agreement endings here, not with assignment of a default value at the interface with PF. We need to distinguish once again between feature values and their phonological realization. The default agreement we have in mind in this chapter is simply a morpho-phonological ending assigned to the pp, which very often does not correspond with the value on the pp. This value infact cannot be

phonologically realized sometimes because of the constraint in (15)-(16), as we will see in the remainder of this chapter.

The pp agreement patterns that we observe in ISCs follow quite straightforwardly from (15). To start, let us consider transitive sentences. The agreement patterns of pp agreement there are illustrated in (18)-(20):

(18) *Ho* *visto* *Maria*
I-have-1st sg seen-masc sg Maria
'I have seen Maria'

In (18), the pp cannot agree with the unmoved internal argument:

(19) **Ho* *vista* *Maria*
I-have-1st sg seen-fem sg Maria
'I have seen Maria'

However, as soon as the internal argument is raised, agreement takes place, as we saw in (9):

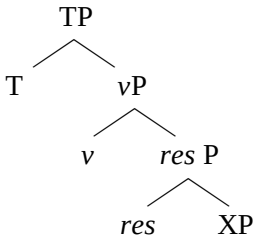
(20) *L'ho* *vista /* **visto*
her-fem sg-I-have-1st sg seen-fem sg seen-masc sg
'I have seen her'

Moreover, Cinque (1999) and Belletti (2005) observe that in transitive sentences the pp is forced to raise, whereas in passives it may or may not raise.

D'Alessandro & Roberts (2007a) propose a complex *v*P structure, including a $v_{Prt}$ projection where the external argument is merged and whose φ-features Agree with the object's φ-features and value the object's Case feature as Accusative. $v_{Aux}$ instead hosts the auxiliary, which is treated as a raising predicate and selects $v_{Prt}$. In other words, when a pp is present in the clause $v_{Prt}$ is the phase head, and $v_{Aux}$ simply hosts the auxiliary. We do not need to change the assumptions made in chapter 2, and we can simply stick to our system by saying that our *v* is actually what D'Alessandro and Roberts call $v_{Prt}$ and our *res* head is more or less equivalent to what D'Alessandro & Roberts indicate as V. In this chapter, therefore, we will stick to the terminology we have been using throughout. Differently from D'Alessandro & Roberts, who postulate a dedicated projection $v_{Aux}$ hosting the auxiliary, we assume that the auxiliary is merged

in T. Furthermore, observe that the pp may be merged in *res* if the verb is telic, or in *v* if the verb is non-telic, as assumed in chapter 2. The structure that we adopt is therefore the following:[39]

(21)




We can now go back to the analysis of pp agreement in transitive sentences in Italian. The derivation of (18) is as follows: the pp is merged in *res.* In (18), we have an active structure, and hence the pp raises to *v*. *v* is a phase head, and therefore it does not belong to the same spell-out domain as its complement *res*P, in which the object is merged. Hence, the object *Maria* belongs to a different spell-out domain than the pp. By (15), no overt morpho-phonological agreement is visible on the participle. It is worth recalling once again that (overt) morpho-phonological agreement is different from Agree, which is a syntactic operation. Even if Agree takes place, its morpho-phonological realization is determined by the rule in (15).

Consider next the transitive active structure involving a clitic object in (20). In (20), the pp is merged in *res* and raises to *v*. However, the object, being a clitic, raises as well. According to Mavrogiorgos (to appear) and Roberts (2006)), object clitics raise (or are spelt-out) to *v*. Hence, the object on *v* and the pp on *v* are in the same spell-out domain, and morpho-phonological agreement is expected.

In the case of passives, the pp shows agreement with the promoted internal argument, as in (8), here repeated as (22):

(22) *Maria* *è* *stata* *assunta*
Maria-fem sg is-3rd sg been-pp fem sg hired-pp fem sg
'Maria has been hired' [from Belletti (2001:3:3)]

(22) is a passive structure and therefore *v* is a defective phase head. This means that even if the pp moves to *v*, it is still going to be in the same spell-out domain as the promoted internal argument *Maria*, since *v* cannot

determine its own phrasal domain, instead being part of the domain of the higher phase-head C. In other words, both *Maria* and the pp are sent to Spell-Out together, and morpho-phonological agreement is therefore expected to appear.

Unaccusative sentences such as (7), here repeated as (23), also show a defective *v*, and therefore the internal argument, i.e. the subject, and the pp are sent to Spell-Out together, and consequently agreement surfaces.

(23) *Maria* *è* *partita*
Maria-fem sg is-3rd sg left-pp fem sg
'Maria has left'

Finally, unergatives show the same agreement patterns as active transitives, since we assume that they involve a non-defective *v*, following Hale & Keyser (1993).

We can now turn to examine the agreement patterns of ISCs.

### 1.3. Pp agreement in ISCs with V-O agreement

As shown above, in transitive ISCs with V-O agreement in the present perfect, both the pp and the auxiliary agree with the DP object. An example of this agreement pattern is (24):

(24) *Si sono* *mangiati* *gli* *spaghetti*
si are-3rd pl eaten-pl masc the-pl masc spaghetti
'Some people/we have eaten spaghetti'

Before turning to consider the pp agreement pattern of ISCs with V-O agreement, we need to address briefly the issue of the feature composition of *v*. It is a well-known fact that the pp in Italian inflects for gender and number, not for person. Nevertheless, we have postulated an unvalued person feature on the *v* here. In fact, we need to distinguish between the featural composition of functional heads and the morpho-phonological realization of these features. In Italian, past participles show morphological inflection for number and gender, and as we have seen they move to *v* (Belletti 2005, D'Alessandro & Roberts 2007a). We have also seen that *v* is non-defective (in chapter 2), and we do not wish to postulate a different *v* for periphrastic tenses. Even if the pp shows only number and gender

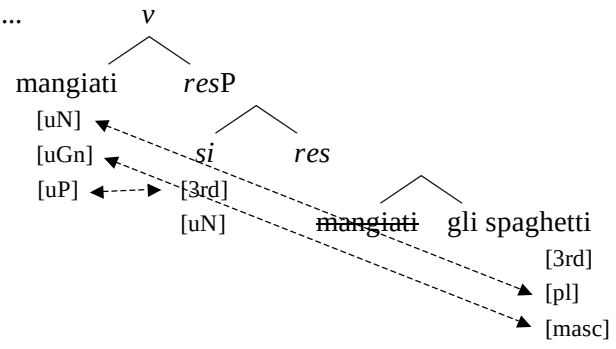
morpho-phonological agreement, we stick to the assumption that *v* is φ-complete, and that it can assign Case and license an external θ-role.

On the basis of our analysis of transitive ISCs, and following the proposal by D'Alessandro & Roberts (2007a), we can now analyze (24). To start with, the DP *gli spaghetti* is merged with the pp in *res*, and gets its internal θ-role. The DP object has valued number, person, and gender. As seen in chapter 2, *si* is merged in the specifier of *res*P. *v* is merged with *res*P, and it needs to get its φ-features valued. Therefore, it looks down for a DP with which it Matches. It finds *si*. Recall that *si* has a valued 3rd person feature, with an [arb] sub-feature and an unvalued number feature. Therefore, *si* values *v* as 3rd person and is valued as Accusative (by full Match). However, as stated in the introduction, *si* has unvalued number (and gender), and therefore it is not possible for it to value all the φ-features on *v*. In fact, *v* looks lower down until it finds the DP which has number and gender and can value its unvalued number feature. This way, *v* gets its number feature valued according to the number and the gender of the object (plural in the case of *gli spaghetti*).

The auxiliary is merged in T.[40] T, like *v*, also enters the derivation with a full set of unvalued φ-features, which need to be valued. Therefore, T looks down for a φ-set that can value its unvalued φ-set. It Matches with *si*, which is 3rd person and bears unvalued number and gender features. However, *si* is an inactive Goal, since its features have undergone Match and its Case feature has been valued. Therefore T keeps 'searching' until it meets the DP object, which is still active as its person feature has not undergone Agree, while φ-set is complete. Therefore, also the auxiliary shows agreement with the object (see 26). Moreover, the multiple Agree configuration triggers the person restriction, as explained in chapter 3. Observe furthermore that even in ISCs with V-O agreement *v* is not a phase head, as discussed in chapter 2, and therefore the pp and the DP object are in the same spell-out domain.

Let us now turn to examine pp agreement in detail. We have seen that the pp has unvalued number and gender. The relevant part of the derivation is as follows:

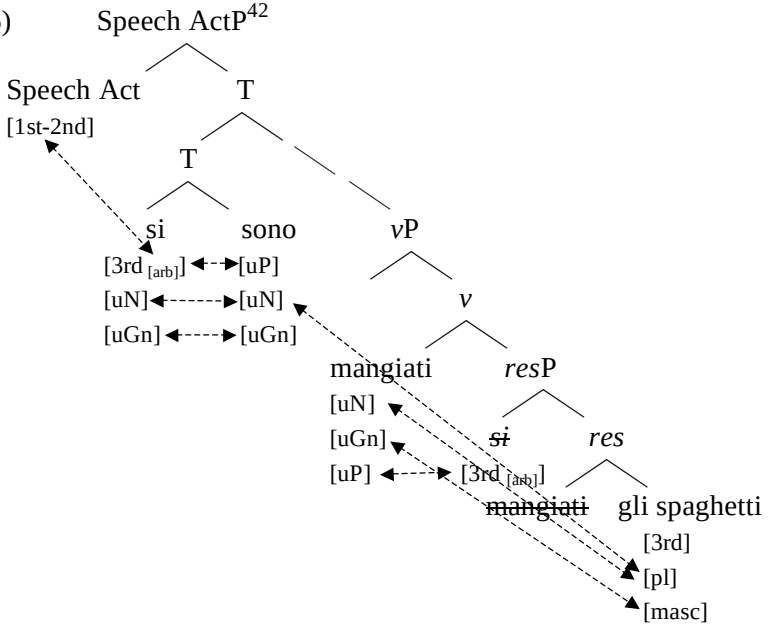
(25)




In (24), the pp and the DP object establish an Agree relation, whereby the object values the unvalued features of the pp. By (15), if *v* is a phase head, it will belong to a different spell-out domain than the DP object, and therefore no morphological agreement will be visible. However, as observed in chapter 2, *v* is not a phase head. T can in fact Agree and value the Case on the DP object. Hence, by (15), overt morpho-phonological agreement is expected.

The whole derivation of (24) is in (26):[41]

(26)



We can now turn to examine the pp agreement patterns of ISCs without V-O agreement.

### 1.4. Pp agreement in ISCs with no V-O agreement

The agreement pattern of an ISC without V-O agreement in the past tense is exemplified in (4), here repeated as (27):

(27) *Si è* *mangiato* *spaghetti*
si is-3rd sg eaten-pp masc sg spaghetti-masc pl
'Somebody ate spaghetti'

In (27), no agreement takes place between the auxiliary and the DP object.

Before tackling the analysis of (27), we need to recall the rules of default morpho-phonological agreement proposed in chapter 1. Default morpho-phonological agreement certainly cannot take place every time there is an unvalued feature; if this were the case, sentences like *John reads the book the newspaper* would not be ruled out, since the Case feature on the *the newspaper* could be valued as Accusative by default, for instance. Therefore, in chapter 1 we proposed that default agreement is only assigned to a specific syntactic configuration, namely Match of unvalued features (or simple dependency, in Lopez's (to appear) terms). When two unvalued features are in a c-command relation, Match can still take place between them. In this case and only in this case will a default value be assigned to this matching pair at the interface. In other words, PF will 'read' two unvalued but matching features in a c-command configuration as features to which default values must be assigned. Recall once again that this is a mechanism for the assignment of default feature values. The assignment of a default phonological ending at PF is instead governed by (15) and (16). As usual, feature values and their morpho-phonological realizations are not to be confused.

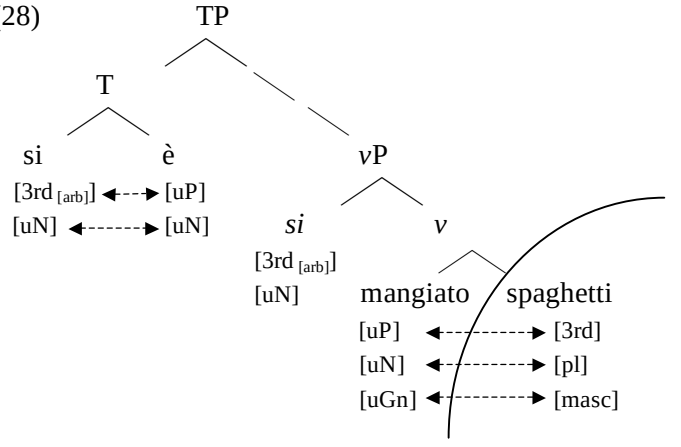
We can now return to the analysis of (27). As shown in section 3 of chapter 2, in the case of ISCs without V-O agreement the *res* head is not present, and therefore no intervention effect may be performed by *si*. The DP object is normally assigned Accusative case, and the pp does not show agreement with the object. In (27), we again have a transitive active construction, and therefore the pp is merged in *v*. Moreover, since no *res* head is present, *si* is merged in the specifier of *v*, which is a phase head in

this construction. If the pp is on *v* it will not be in the same spell-out domain as the internal argument. This means that by (15) no overt morphological pp agreement is expected. This prediction is borne out.

The derivation of (27) runs as follows: the object *spaghetti* is merged with the pp in *v*, and there it gets its internal θ-role. *v* has unvalued number, person and gender. The DP object has valued number, person, and gender. *v* Agrees with the DP object and gets its φ-features valued as (3rd) plural masculine. The object DP belongs to the complement of the phase head *v*, and will be sent to Spell-Out in a different chunk from *v*. This means that, although Agree has taken place, overt morpho-phonological agreement is not visible on the pp, by virtue of the condition in (15). *Si* is merged in the specifier of *v*.

The auxiliary is then merged in T. T, like *v*, also enters the derivation with a full set of unvalued φ-features, which need to be valued. Therefore, T looks down for a φ-set that can value its unvalued φ-set. It Matches with *si*, which has 3rd person and unvalued number, and values T's feature as [3rd]. The number feature stays unvalued, but has undergone Match with the number feature on *si*, thus creating the conditions for default agreement to take place (as proposed in chapter 1). As a result, the verb shows the 3rd person singular default inflection. Morever, *si* receives Nominative Case and cliticizes onto T, thus also checking the EPP. Observe that T cannot get its number feature valued from the object DP for two reasons: first, the DP object is an inactive Goal, as all its features have undergone Match and valuation and are no longer visible. Moreover, the DP object is not visible to T for the Phase Impenetrability Condition (Chomsky 2001) which states that the domain of a phase head H is not accessible to operations outside HP; only H and its edge are accessible to such operations. Since the DP object is neither the phase head nor is it in located in the phase edge, we can conclude that it is not accessible for Match/Agree with T. The derivation of (27) is shown in (28):

(28)




(28) shows that although Agree does take place between the pp in *v* and the DP object, morphological agreement is not visible on the pp, which takes the default masculine singular ending. This ending is attributed to the pp because it has undergone Agree with the object but then it has been sent to Spell-Out in a different chunk. Therefore, a default morpho-phonological agreement ending has been attributed to it at PF.

So far, we have not addressed the derivation of the construction in (5), nor have we mentioned object clitics. We will consider these constructions in section 3. In the following section, we consider instead the so called unaccusative-unergative puzzle.

## 2. The unaccusative-unergative puzzle

Unergative verbs differ from unaccusatives in an interesting way. While the agreement patterns of the present tense in both unergative and unaccusative ISCs are the same, in the past tense they are different [see Belletti (2001)], in that the pp is singular when the verb is unergative and plural when it is unaccusative (see also Alboiu *et al.* 2004). The present tense of an unergative impersonal *si* construction is shown in (29):

(29) *Si* *lavora*
si works-3rd sg
'People work'

In (29), the verb shows the default 3rd singular ending. The past tense (*passato prossimo*) of (29) is (30):

(30) *Si è lavorato*
si is-3rd sg worked-pp masc sg
'They/somebody have/has worked'

In (30), the auxiliary shows the default 3rd singular ending and the participle shows the default singular masculine ending. The present tense of an unaccusative ISC is shown in (31):

(31) *Si arriva*
si arrives-3rd sg
'People/they arrive'

In (31), just as in (29), the verb is in the present tense and shows the default 3rd singular ending. However, the past tense of an unaccusative ISC is different from the past tense of an unergative ISC, as shown in (32):

(32) *Si è arrivati*
si is-3rd sg arrived-pp masc pl
'They/we arrived'

In (32), the auxiliary shows the default 3rd singular ending while the participle is plural masculine. In the previous section an analysis for ISCs with transitive verbs was proposed. This section will be devoted to the analysis of unergative and unaccusative impersonals.

## 2.1. Impersonal *si* with unergatives

For unergative verbs, we follow the analysis proposed by Hale and Keyser (1993), according to which unergatives are underlying transitives, with the direct object (Theme) incorporating into the root by conflation. In other words, the internal argument is syntactically projected, but has no phonological realization. Following the traditional terminology, we will refer to this internal argument as the cognate object. For our analysis it also matters that unergatives have a non-defective *v* which is a phase head. In

the present tense, as shown above, unergative ISCs show a 3rd person singular verb:

(33) *Si* *lavora*
si works-3rd sg
'People are working'

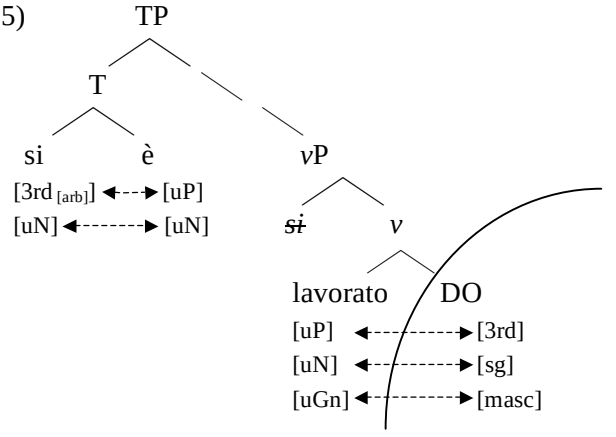
In (33), the person feature on T is valued by *si* as 3rd, while the unvalued number undergoes Match with the unvalued number of *si*, and the default singular ending is attributed to T at PF. In the past tense, as we saw above, the pp is inflected as masculine and singular, as shown in (34).

(34) *Si* *è* *lavorato*
si is-3rd sg worked-pp masc sg
'They/somebody have/has worked'

In (34), the event is atelic, and therefore the cognate object is merged directly with *v*.The cognate object is by definition masculine singular, which is the default valued feature set in Italian. *v* Agrees with the DP cognate object, and gets its features valued as masculine singular. Recall that *v* is a phase head. *Si* is merged in the specifier of *v*. T is also merged, and it has a full unvalued φ-set that needs to be valued. T looks down and meets *si* (which also subsequently cliticizes onto T), and gets its person feature valued as 3rd. The number feature on T needs to be valued. It cannot be valued by the object's number feature, as the object is not accessible to T by the Phase Impenetrability Condition (Chomsky 2001). Therefore, it will be valued as default singular because it undergoes Match with the unvalued number feature of *si*.

The relevant part of the tree diagram of (34) is outlined in (35):

(35)




As (35) shows, the direct object and the pp are not in the same spell-out domain, and therefore no morpho-phonological agreement is expected on the pp.

## 2.2. ISCs with unaccusative verbs

In the present tense, the finite unaccusative verb shows the default 3rd singular ending, as in (31), here repeated as (36):

(36) *Si arriva*
si arrives-3rd sg
'People/they arrive'

Following the standard assumptions about unaccusative verbs, we assume thatthe *v* head is not a phase head. Moreover, we assume that *si* is merged in the internal argument position. The derivation of (36) runs as follows: *si* is merged with the verb in *v*, which has unvalued φ-features. *v* Agrees with *si* and gets its person feature valued as 3rd. The number feature is valued as singular by default because it enters Match with the unvalued number feature on *si*. T is also merged, and it has an unvalued φ-set. *Si* cliticizes on T and values its person feature. The number feature on T is valued by default, because T Matches with the unvalued features on *si*.

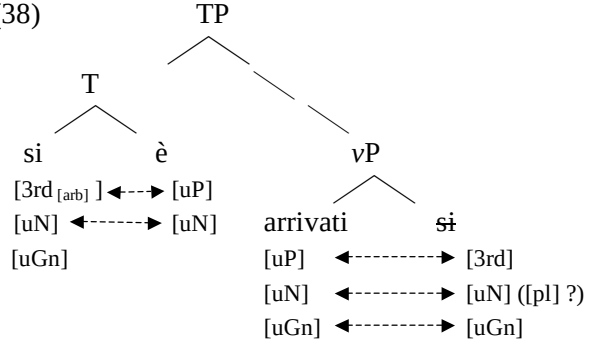
In the past tense, as already pointed out, there is a mismatch in number between the auxiliary and the past participle:

(37) *Si è* *arrivati*
si is-3rd sg arrived-pp masc pl
'They/we arrived'

The plural ending on the pp is unexpected. We know that *si* has a valued 3rd person with unvalued [arb], unvalued number and unvalued gender. In (37), the pp in *v* Agrees with *si*, but it gets valued as plural rather than default singular as we would expect. In order to understand the reason for this plural number, we need to take a closer look at the reference set of *si* again. We will do this in 2.2.1. For the moment, let us simply assume that Agree with *si* values the pp number feature as plural in unaccusative ISCs only.

The derivation of (37) is as follows: *si* is merged with the pp in *v*. The pp Agrees with *si* and is valued as plural (only in this case: see 2.2.1.) and masculine, which is the default ending (due to Match of unvalued features). The gender feature on *si* is in fact also unvalued, and it enters Match with the pp's unvalued gender feature. This Match of unvalued feature will be assigned a default value at the interface. Then, T is merged. T also has unvalued φ-features which will be valued by *si* as usual. Observe that the value of the auxiliary's number feature on T is singular this time, as it follows the usual Match of unvalued features = default assignment rule. Finally, morpho-phonological agreement will be visible on the pp because *v* is not a phase head, and therefore pp will be sent to Spell-Out together with *si*. (37) is represented in (38):

(38)




Observe that in (37) the gender on the pp can also be feminine, depending on the sex of the referents of *si*, as shown in (39):

(39) *Si è* *arrivate*
si is-3rd sg arrived-pp fem pl
'They/we (fem) arrived'

If we have an unvalued gender feature on *si*, we expect the pp to show the default agreement ending, which in Italian is masculine. In what follows, we will examine in more depth the reason why *si* seems to value the pp as plural in (37) and as feminine in (39).

### *2.2.1. [arb] number?*

It has often been pointed out that impersonal *si* identifies a group of humans. That is, its referential set is a group of human beings. This property has often been referred to as 'animacy' (Anagnostopoulou 2002, Ormazabal & Romero 2000). 'Animacy' is, however, not a precise definition, because obviously animals are also animate and yet they are not included in the reference set of *si*. According to Chierchia (1995b), impersonal *si* identifies a group of people performing the action expressed by the verb. In fact, *si* may only be 'human'. The following sentence may only be interpreted as 'people bark', never as 'dogs bark', despite the fact that 'bark' is - usually - something that only dogs do.

(40) *Qui* *si abbaia* *tutto* *il* *giorno*
here si barks all the day
'Here they bark all day long'

When the predicate obviously refers to something 'non-human', the use of *si* is not possible:

(41) *#Si è* *di plastica*
si is of plastic

(39) is only acceptable with a figurative meaning, something like 'People have no feelings, they are as if they were made of plastic'. This meaning does not interest us here.

Observe that reflexive *si*, on the contrary, does not bear a 'human' feature. One can easily utter a sentence like (40):

(42) *Questa macchinetta del caffè si pulisce da sola*
this machine of-the coffee si cleans by alone
'This coffee-machine cleans itself'

The comparison of impersonal and reflexive *si* suggests that impersonal *si* might have some additional feature. We have seen that the person feature on *si* is further specified as having an [arb] sub-feature. This feature however is not the one we need here. Let us consider also the 'semantic' number of *si*. Chierchia (1995b) argued extensively for the semantic plurality of *si*. That *si* is semantically plural is universally recognized. In sentences with no other 'number' specification, *si* serves as an identifier for a group, as in (41):

(43) *Si canta e si balla*
si sings-3rd sg and si dances-3rd sg
'People sing and dance'

(41) can never mean something like 'I sing', or 'you sing', unless a very strong pragmatic context forces the 1st person interpretation, as in (42):

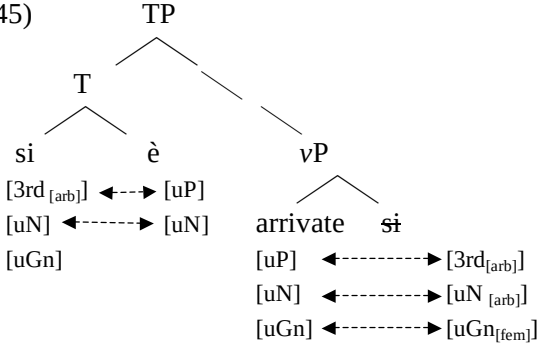
(44) *Come stai? Eh, si vive!*
how are-2nd sg eh si lives-3rd sg
'How are you? Well, I try to go on'

We do not wish to consider these pragmatically very marked and marginal constructions here. Our assumptions will be drawn on the basis of the 'usual', common interpretation that *si* receives, which is that of a group of people. The 'human' and 'group' characterization of *si* suggest that the number feature of *si* is also further specified as [plural]. This means that *si* is syntactically underspecified for number, i.e. it has an unvalued number feature, but it is semantically specified as plural, as it identifies a group of people as we have just seen. Therefore, we wish to propose that number feature of *si* has a [plural] sub-feature. It seems to be the case that this sub-feature is probed by the pp for Agree in unaccusative constructions rather than the usual underspecified number feature. The reasons for this unusual probing remain unclear. However, we have evidence that Agree with *si* also triggers plural agreement in another case, namely in predicative constructions, as we will see in section 3.

### *2.2.2. Disjunctive gender?*

We have seen in (39) that the pp can be valued as feminine, in the case in which the referent set is only made up of women. We can try to capture this fact by postulating the existence of a [masc/fem] sub-feature also for the gender feature. The [masc/fem] gender sub-feature is specified pragmatically, along the lines of the [arb] person sub-feature. It is a disjunctive sub-feature, as discussed in chapter 1. In chapter 1, we proposed that some features can be disjunctive, i.e. they can include all possible values for that feature. A disjunctive gender feature includes both masculine and feminine values; the selection of one value or the other, or both in the case of a mixed reference group, is determined by pragmatic/deictic factors. The derivation of (39) would then be as follows:

(45)




Also in this case, it is unclear why the pp's unvalued [gender] probes the [masc/fem] sub-feature, valued as [fem] in the case of (39), rather than the unvalued [gender] feature. One possibility would be to postulate that a sort of Elsewhere Condition (Kiparski 1982) is at work, whereby a more-specific feature set bleeds a less specific one from interacting. We cannot add much to this issue at the moment, and we therefore leave it open to further research.

We now wish to examine other constructions where a feature mismatch arises, such as predicative constructions and transitive ISCs with clitics.

## 3. Other cases of agreement mismatch

The agreement mismatch between the singular auxiliary and the plural participle is not uniquely attributable to unaccusative ISCs. This mismatch is also found in predicative constructions, an example of which is offered in (46), in transitive ISCs without V-O agreement involving a clitic object, as exemplified in (47), and in non canonical transitive ISCs with V-O agreement, as exemplified in (48):

(46) *Se* *si è* *ricchi,* *si è* *anche*
if si is-3rd sg rich-pl masc si is-3rd sg also

*belli*
beautiful-pl masc
'If one is rich, one is also beautiful'

(47) *Li* *si è* *visti*
them-3rd pl Acc si is seen-pl masc
'They/we have seen them'

(48) *Si è* *mangiati* *gli* *spaghetti*
si is-3rd sg eaten-pp masc pl the-masc pl spaghetti-masc pl
'Somebody has eaten spaghetti'

Let us examine these constructions a little more closely.

### 3.1.1. *Predicative ISCs:* si è belli

We have seen that predicative constructions show an agreement mismatch like the one found in unaccusative constructions. It is also worth noticing that the construction in (46) can also take the form of (49) if the reference set involves only women:

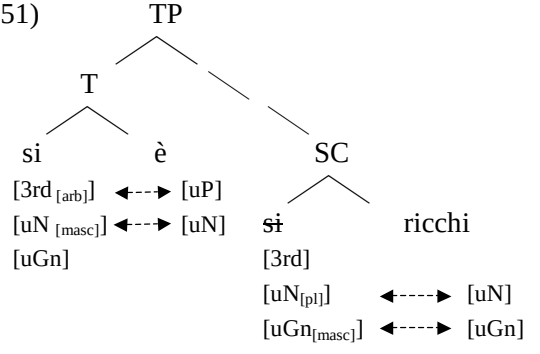
(49) *Se* *si è* *ricche,* *si è* *anche*
if si is-3rd sg rich-fem pl si is-3rd sg also
*belle*
beautiful-fem pl
'If one is rich, one is also beautiful'

We analyze (46)-(49) as involving a small clause (see Moro 2000, Belletti 2002, 2005). Moreover, Costa & Pereira (2003) have shown that a construction in European Portuguese that closely resembles (46) also involves a small clause (SC henceforth). This constructions makes use of the impersonal DP *a gente* (lit. 'the people'). In this construction, the subject *a gente* is morphologically marked as a singular feminine, but the adjective in predicative constructions involving this subject is marked as plural and masculine, as (50) exemplifies:

(50) *A* *gente* *esta* *cansados*
the-fem sg people-fem sg is-3rd sg tired-pl masc
'People are tired'

(50) behaves exactly like (46) with respect to agreement: the auxiliary shows singular agreement, and the adjective is inflected for plural. Costa & Pereira propose an analysis for (50) which separates syntactic and semantic agreement, and state that semantic agreement between the adjective and *a gente* takes place in the SC. Following Costa & Pereira, we can assume that (46) involves a small clause. We can also argue that different features are probed by the adjective in this case too. Specifically, the gender [fem/masc] and number[arb] sub-features are probed by the adjective, whereas the unvalued gender and number features are probed by the auxiliary in T.[43] The relevant part of the derivation of (46) is in (51):

(51)




In (51), the unvalued gender feature on the adjective is valued by the [masc] sub-feature on *si*, and the unvalued [number] feature on the adjective is valued by the [plural] sub-feature on *si*. The features on T are

valued by *si* as usual. Observe that (15) also seems to hold in the case of SCs, since the adjective and *si* are sent to Spell-Out together and morpho-phonological agreement surfaces. Again, it is not exactly clear why the adjective probes sub-features and the auxiliary the main features of *si* (see fn. 43).

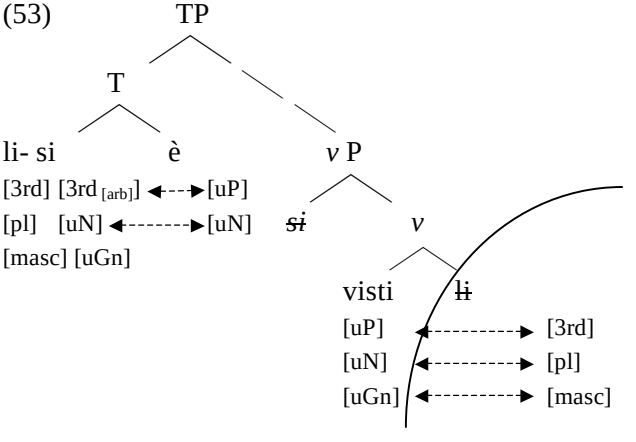
### *3.1.2. Transitive ISCs with object clitics*

Another construction which presents an apparent feature mismatch is the transitive ISC involving a clitic object, like the one exemplified in (47), and repeated here as (52):

(52) *Li* *si è* *visti*
them-3rd pl Acc si is seen-pl masc
'They/we have seen them'

In (52), the auxiliary is singular whereas the pp is plural. This agreement pattern is not unexpected however, since as we showed in section 1.2. the clitic moves out of the complement spell-out domain, and is therefore sent to Spell-Out together with the phase head *v*. ISCs without V-O agreement are in fact regular transitive constructions, as shown in chapter 2, and *v* is a non-defective phase head. Hence, the derivation of (52) is quite straightforward. By (15), morpho-phonological agreement between the pp and the DP object is expected, and this expectation is borne out. The derivation of (52) is illustrated in (53):

(53)



In (53), the pp Agrees with the object clitic, and is sent to Spell-Out together with it, thus triggering morpho-phonological agreement on the pp. The clitic cluster *li si* is not represented in (53) for space reasons, but the *li si* cluster is a complex head. The unvalued features on the auxiliary are valued by *si* as usual.

### 3.1.3. *Non canonical agreement patterns:* si è mangiati gli spaghetti

At the beginning of this chapter, we saw that some speakers accept the following sentence as grammatical. It needs to be said that the acceptability judgments for this sentence are rather varied. Nevertheless, many speakers consider it acceptable.

(54) *Si è* *mangiati* *gli* *spaghetti*
si is-3rd sg eaten-pp masc pl the-masc pl spaghetti-masc pl
'Somebody has eaten spaghetti'

In (54), the pp agrees with the object and the auxiliary shows the default 3rd singular ending. However, this sentence has V-O agreement, and therefore we would expect the auxiliary to also agree with the object given that *v* is not a phase head in these structures, which does not take place. *v* in this sentence is not a phase head, and therefore we expect morpho-phonological agreement between the pp and the DP object, which also does take place. However, the auxiliary in T has an unvalued number feature that should be valued by the valued number on the object, but is not. It seems to be the case then that the unvalued number on T is left to Match with the unvalued number feature on *si* and does not probe the object. This Agree is unprecedented, and cannot be explained within the current proposal. We leave therefore it to further research.

## 4. Conclusions

In this chapter, the issue of agreement in ISCs in the present perfect and in predicative ISCs has been addressed. ISCs with and without auxiliary-object agreement were examined, together with the past participle agreement patterns in unergative and unaccusative structures. Moreover,

the predicative construction *Si è belli* was analyzed, which requires singular agreement on the auxiliary and plural agreement on the adjective.

For the analysis of the past participle agreement patterns, as well as for the analysis of the predicative constructions, a recent analysis of pp agreement in Italian by D'Alessandro & Roberts (2007a) was adopted, according to which morpho-phonological pp agreement is available when the pp is sent to Spell-Out together with the DP it agrees with. In other words, pp agreement surfaces when the pp and the DP object belong to the same spell-out domain. Otherwise, even if an Agree relation is at work and the pp features are valued, we will not be able to see the morpho-phonological realization of pp agreement.

For transitive ISCs with V-O agreement, agreement between the pp and the DP object is expected, since they belong to the same spell-out domain. This is in fact the case. For transitive ISCs without V-O agreement, morpho-phonological agreement between the pp and the DP object is not expected if the object stays *in-situ*, but is expected if the object is a clitic and moves out of the complement of the phase head, moving to a position where it belongs to the same spell-out domain as the pp. This is in fact what we find.

We have also examined the unaccusative-unergative puzzle, whereby pp in the present tense is plural if the verb is unaccusative and singular if the verb is unergative. This agreement pattern is expected under D'Alessandro & Roberts (2007a). Other agreement mismatches have been examined and explained, with the exception of a construction found in substandard Italian which is unexpected in terms of the model proposed.

Finally, we have proposed the existence of sub-features characterizing *si*, such as the [plural] sub-feature, which indicates that *si* always identifies a group of people, and the [arb] sub-feature for the gender feature, which is specified according to the reference set of *si*. These sub-features encode semantico-pragmatic information, and are sometimes targeted by other elements in the clause. The exact reason why these features are targeted only in some contexts and not in others remains unknown.

# Chapter 6
# Conclusions

In this book, we have investigated the agreement patterns and interpretations of impersonal *si* constructions (ISCs) in Italian. We have proposed a novel analysis and shown how this analysis can be extended to other languages, and how its predictions can be verified on the basis of parallel phenomena in other languages. The languages that have been considered together with Italian to draw a more complete picture of the various phenomena addressed in this book are Peninsular Spanish, Latin American Spanish, French, Rumanian, Old Italian, Tuscan, Finnish, Swedish, and Icelandic. Several new observations have been brought to light and a novel analysis has been proposed for ISCs that targets the pragmatics-syntax interface.

The main results of this analysis are the following:

First, it was shown that agreement facts may be determined by the inner and outer aspectual specification of a clause. It was shown that tense and aspect play an active role in determining both the agreement patterns of ISCs and their interpretation. It needs to be said that ISCs exhibit wide variation with respect to their agreement patterns, as a result of both regional variation and idiolectal preferences. This variation is addressed at length in this book.

Second, the analysis of the agreement patterns of ISCs shows that the syntactic features proposed to date are not sufficient to allow a systematic account of the ISCs facts. Following several proposals concerning the architecture of features, it is proposed that the feature bundle of impersonal *si* and impersonal pronouns in general is not unidimensional, but includes a second dimension of sub-features that encode semantico-pragmatic information. These features need to be valued in order for the sentence to be interpretable. If this valuation fails to take place, the reference set of impersonal pronouns remains uncertain, and the sentence is therefore uninterpretable.

Connected to this is the problem of default agreement, i.e. the attribution of default values to unvalued features. Default agreement has often been believed to be assigned to the verb in ISCs. However, the present study made it necessary to define the exact contexts in which default agreement can apply. Should default agreement apply freely whenever a feature is left

unvalued until Spell-Out, we would never have derivations crashing for lack of feature valuation, which is clearly not the case. Therefore, it was proposed that default agreement can only apply in the presence of a specific syntactic configuration, namely when two unvalued features are in a Match relation. In that case, since the features are present on both heads but are not valued, they are assigned a default value at the interface.

Next, the study of ISCs has brought to light interesting parallels with apparently unrelated phenomena in other languages, such as the person restriction on Nominative objects in Icelandic quirky subject constructions. These constructions have always traditionally been analyzed as a unitary phenomenon. However, if we compare these constructions with ISCs, we can see that some of them are straightforwardly similar to ISCs, while others are not. We can therefore legitimately question the idea that the person restriction in Icelandic is a unitary phenomenon, and suggest instead that there are at least two causes for it, one of which is the same as that which characterizes the person restriction for ISCs, namely the presence of an enclitic (im)personal pronoun (or a relic of it).

Finally, the analysis of ISCs, traditionally borderline constructions that include characteristics of both passives and actives, and of both pronominals and indefinites, has brought to light a general problem for minimalism, namely the definition of phase heads. In particular, the correspondence between defectiveness and non phasehood is challenged by transitive ICSs, which are shown to involve a non-defective but non-phasal *v*. In what follows, we present a short summary of the contents of the book, and we try to offer some general conclusions along with some lines of future research.

## 1. Summary

The book is divided into two parts: in the first part (chapters 1-3), we consider the interaction between inner aspect and agreement. In the second part (chapters 4-5), we show how sentential aspect determines the interpretation of ISCs. Chapter 5, which is dedicated to past participle agreement facts in ISCs, subsumes the analysis proposed in the previous chapters, and shows that past participle agreement facts reflect an interesting mix of the effects of the interaction of inner and sentential aspect and sentence structure.

Chapter 1 is a general introduction to ISCs. Over the years, ISCs have been analyzed from several different perspectives, and chapter 1 tries to offer a general overview of the main points of view expressed by linguists on ISCs. The importance of the study of these constructions resides in the fact that they show mixed characteristics, which makes them very difficult to classify. First, ISCs involve an impersonal pronoun that morphologically looks like the reflexive pronoun in Italian. This impersonal pronoun, *si*, seems to trigger various peculiar agreement mismatches in the clause, as well as causing agreement restrictions. Second, transitive ISCs closely resemble passives, although on closer inspection their syntactic behavior differs significantly from that of passives. Furthermore, it is quite difficult to draw a clearcut pattern of interpretation of ISCs, since they seem to be subject to an even wider interpretational variation than the other Italian sentences. In this respect, a collection of data is proposed in this chapter, which highlights some general agreement patterns and some general trends of interpretation. Although this variation is addressed in the various chapters, special attention is paid to those agreement patterns and interpretational patterns that are shared by most or all speakers.

Chapter 1 also includes a discussion of the nature of impersonal *si* as compared to the forms that are syntactically close to it, i.e. reflexive *si* and other pronouns. A general overview of the Minimalist Program (MP), the theoretical background against which our analysis is shaped, is also introduced. However, at various points in the book some shortcomings of the MP are brought to light, and some possible extensions are suggested for it, which try to be as faithful as possible to the minimalist spirit. One such example is the context in which default agreement can apply. The proposal is made that default agreement is only possible when two unvalued features are in a Match relation. Only in this case can they receive a default value. Finally, a detailed introduction to impersonal *si* with its syntactic features is provided, together with the main facts that will be addressed in the book.

Chapters 2-3 examine the peculiarities of ISC agreement patterns. ISCs famously display marginal or unique agreement patterns when compared to standard agreement in Italian. These agreement patterns are often defined as ‘irregular’ or ‘exceptional’ in traditional grammars. These chapters show that the exceptionality of these patterns is only superficial, and that they are in fact predictable given the right premises, if we consider all the driving factors behind agreement and not merely some of them.

In chapter 2, the alternation between transitive ISCs with verb-object agreement and transitive ISCs without verb-object agreement is carefully considered. It is shown that the agreement alternation between these two constructions is not the result of idiosyncrasy or optionality, nor is it related to voice, as is often assumed: instead, it is the result of the interaction of inner aspectual projections with clause structure. In other words, the syntactic structures of the two constructions mirror their inner aspectual structure, which is shown not to be the same in the two cases. Specifically, we show that ISCs with verb-object agreement are in fact accomplishments, while ISCs without verb-object agreement are activities. Adopting Ramchand's (2006) First Phase syntactic model, we claim that this accomplishment/activity alternation is reflected in the syntax, and straightforwardly accounts for the agreement alternation at issue. Moreover, ISCs offer evidence that the inner aspectual structure postulated for verbs in general does exist and is active in determining agreement patterns. In fact, transitive ISCs both with and without verb-object agreement involve the same verb. This chapter hence shows that there is no need to postulate special properties for *si* which would make it different from any other Italian lexical item, such as ability to withdraw Case or block theta-role assignment. Interestingly, data from other languages, such as Latin American Spanish, support the generalization proposed in this chapter, i.e. that ISCs with verb-object agreement are accomplishments, while ISCs without verb-object agreement are activities.

Chapter 3 tackles the problem of the person restriction on the Nominative object in transitive ISCs with verb-object agreement. This chapter is an ideal continuation of chapter 2, and shows a further development of the derivation proposed in the previous chapter. The person restriction is not a widespread phenomenon in Italian, and it is therefore often considered accidental or due to animacy constraints governing the interaction between subject and object of transitive sentences. In chapter 3, an alternative analysis is offered, that has the advantage of also being applicable to the more famous person restriction on the object in Icelandic quirky dative constructions. First, it is shown that the person restriction applies in Italian ISCs exactly as it does in Icelandic quirky dative constructions. Then, it is shown that, despite some indications to the contrary, ISCs and Icelandic quirky dative constructions differ radically from one another from a syntactic point of view. In other words, their structure is different, and therefore the person restriction cannot be solely due to the structural configuration nor to the presence of a quirky dative, as

has often been proposed for Icelandic. It is claimed that the person restriction is instead due to the presence of impersonal *si*, which values the person feature on the T head, which in turn cannot agree with a DP object that has a person value different from that already present on the T-*si* complex head, i.e. a 1st or 2nd person pronoun. Interestingly, an element parallel to Italian impersonal *si* is also present in Icelandic quirky dative constructions. This element is the *–st* ending that appears on most of the Icelandic verbs that allow for a quirky dative subject. Unsurprisingly, this *–st* ending originates from a reflexive pronoun in Old Icelandic: The parallelism between the two constructions is all the more evident here. Therefore, we conclude that for those Icelandic quirky dative constructions that exhibit an *–st* ending, the person restriction is determined by this ending. This also means that the person restriction in Icelandic is not a unitary phenomenon, but can be attributable to different causes, although in each case a multiple Agree mechanism is at work.

Some of the existing analyses of person restriction are also taken into consideration and applied to the Italian data. These analyses are shown to make the wrong predictions for Italian in some cases. In other cases, they are partially adopted for the purpose of explaining the person restriction in Italian ISCs. Spanish *olvidarse* constructions are also examined in this chapter.

The second part of the book is dedicated to the interpretational patterns of Italian ISCs. While chapter 4 is entirely devoted to the study of the inclusive vs. generic reading of ISCs, chapter 5 offers an example of how inner aspect, outer aspect, and agreement patterns interact by addressing the interesting issue of past participle agreement mismatches in ISCs.

Chapter 4 is dedicated to the interpretational patterns of ISCs. It is well known that the reference set of impersonal *si* is not unequivocally defined since *si* may refer to a generic group of people (generic interpretation), to a specific group of people (arbitrary interpretation), and finally to a group of people including the speaker (inclusive reading). This last reading, the inclusive one, is the focus of chapter 4. While many syntactico-semantic theories straightforwardly explain the alternation between the generic and the arbitrary reading, none of them has so far explained what exactly causes the inclusive reading of ISCs. Cinque (1988) observed that this inclusive reading arises in contexts of specific time reference. In this chapter, Cinque's observation is shown to be only partially true, and the inclusive reading is shown in fact to be caused by the boundedness of the event. Furthermore, it is shown that *si* behaves like a definite pronoun in bounded

event environments, and as a variable, as previously proposed by Chierchia (1995b), in unbounded environments. The general claim is made that ISCs obtain an inclusive interpretation in bounded contexts. As anticipated in chapter 1, in order to analyze this interpretational pattern, we propose that the feature bundle of impersonal *si* is not unidimensional, but that the person feature on *si* is further specified as bearing an [arb] sub-feature. This sub-feature needs to be specified in order for the reference set of *si* to be identified, and therefore for the ISC to be interpretable. We adopt the idea proposed by Iatridou *et al.* (2003) according to which the unboundedness of the event is encoded in the Asp head by means of an [unbounded] feature. This unbounded feature values the [arb] sub-feature on *si*, thus providing the ISC with a generic interpretation. This valuation mechanism is shown to be different from standard Agree, in that it is Goal-Probe rather than Probe-Goal oriented, much like the Case valuation mechanism (for similar ideas, see Pesetsky & Torrego 2001 and subsequent work).

In the case in which the event is bounded, the [arb] feature on *si* cannot be valued by the [unbounded] feature, and is therefore valued by the [Speaker/Addressee] feature which is present on the Speech Act head. This way, an inclusive (i.e. including the speaker) reading arises. Interestingly, in contexts of reported speech, a logophoric inclusive reading arises, and *si* is interpreted as referring to the speakers indicated in the sentence rather than to the actual speaker uttering the sentence. This is taken to indicate that the hypothesis that the inclusive reading arises because of the person feature of *si* being valued by the Speech Act head is correct. Moreover, cross-linguistic variation is presented to support the idea that the Speaker/Addressee features show a different distribution pattern in different languages.

Chapter 5 addresses the puzzling agreement patterns of past participles in ISCs. These patterns have rarely been acknowledged, and even more rarely have they been addressed. In the past tense (*passato* prossimo) or in copulative constructions, ISCs present a split agreement phenomenon according to which the auxiliary always shows a 3rd person singular ending, while the past participle or the adjective is plural with unaccusative verbs and in copulative constructions but it is singular when the verb is unergative. Moreover, the agreement patterns of transitive ISCs are subject to wide variation, so that it seems that every possible combination of auxiliary number and past participle number seems to be allowed. In this chapter, we try to provide an explanation for these facts. We postulate the existence of sub-features also for gender and number. These sub-features

encode information which is retrievable from the context, i.e. information about the number of participants in the event and their sex. They are therefore strictly deictic. We propose that although *si* has an unvalued number feature, the number sub-feature is specified for plural. This captures Chierchia's observation that *si* always refers to a group of people, and never to a single individual. However, we need to be clear about the fact that the (main) number feature on *si* is unvalued, as we show in chapter 1. For the analysis of past participle agreement, we adopt a model that has recently been proposed by D'Alessandro & Roberts (2007a) according to which past participle agreement in Italian is sensitive to the Phase Impenetrability Condition as proposed by Chomsky (2001). D'Alessandro & Roberts propose that morpho-phonological agreement is only visible on those elements that are sent to Spell-Out in the same chunk, i.e. to those elements that belong to the same spell-out domain (which is always a complement of a non-defective phase head). There is therefore a difference between Agree and its morpho-phonological realization. This realization can be present only if two elements are in an Agree relation, whereas the opposite is not true, and two elements can be in a Agree relation without showing morpho-phonological agreement. Building on this idea, the agreement patterns of transitive ISCs are easily accounted for. The unergative/unaccusative puzzle is shown to be due to the interaction between the sub-featural specification of *si* and the different syntactic structure in which *si* occurs. Predicative ISCs, which unsurprisingly present the same agreement patterns as unaccusative ISCs, are also addressed.

## 2. Final remarks

To our knowledge, most of the agreement facts presented in this book have been paid little or no attention in the literature. In particular, the agreement restriction on Nominative objects has only been mentioned in some traditional descriptive grammars, while the past participle agreement facts have never been addressed, as far as we know. For all other facts, we have built on previous existing analyses, expanding them or modifying them, and also providing new data to support the novel analysis proposed here.

It should be acknowledged that semantico-aspectual approaches to impersonal constructions are quite common and have been proposed several times by different linguists. However, this book has the advantage

that it combines minimalist insights with traditional distinctions, and it also incorporates many recent proposals on syntactic analysis and the encoding of tense-aspectual information in syntactic structures.

Many questions of course remain open, as indicated in the various chapters. In particular, it would be worth investigating the historical development of ISCs, trying to find out when the inner aspectual distinctions emerged and for what reasons. It would also be worth considering in more detail those varieties for which this distinction does not apply. The interaction between inner aspect and agreement could also be tested on other constructions. Moreover, Italian ISCs should be compared to their most important counterpart, namely Slavic impersonal *–sja* constructions.

From the point of view of syntactic theory, many questions also remain open. First of all, the question of the correspondence between non phasehood and defectiveness remains unsolved. As shown in chapter 2, it seems to be the case that some intermediate possibilities should be included in the general picture, and that this correspondence holds in some cases but not in all. Regarding Case assignment, it was shown in this book that it can take place when elements are φ-complete but also if their features are not valued. Match of unvalued features is enough for Case to be assigned. Match of unvalued features is also taken to be the configuration in which default agreement is assigned. So far, this remains a proposal, which needs to be expanded and tested on the basis of other constructions.

A very interesting point that perhaps was not stressed enough in this volume is the ambiguous nature of *si*. This is reflected in its features, which are not a completely valued set. *Si* in fact contains both valued and unvalued features, and this reflects its mixed nature. It is generally assumed that functional heads bear unvalued features, whereas lexical elements bear valued features. *Si* has been shown to exhibit hybrid behavior, being sometimes 'functional' and sometimes lexical. Its feature bundle, composed of both valued and unvalued features, reflects and justifies this behavior.

To conclude, we hope to have shown that impersonal *si* constructions offer a privileged point of view for the investigation of both functional and lexical items, and the interaction of tense, aspect, and agreement.

# Notes

[1] The Italian *passato prossimo* is roughly equivalent to the English present perfect. The Italian preterite (*passato remoto*) has almost died out completely, and nowadays the *passato prossimo* also conveys the meaning of the preterite.

[2] *Ce* is an allomorph of *ci* that occurs when ci precedes another clitic. This phenomenon is common to other clitics as well, like in *glielo* (to him-it), *se lo* (to himself-it) and so forth.

[3] On clitics as spellout of syntactic features, see also the recent proposal by Roberts (2007)

[4] For what matters here, saying that a feature is unvalued is equivalent to saying that it is uninterpretable. For a different use of this terminology, the reader is referred to Pesetsky & Torrego (2004).

[5] In Chomsky (2005a and subseq.) the EPP is no longer conceived as a feature on a head, but rather as a Move diacritic, requiring movement either to a spec or to a head. Hence, specifier filling is no longer a consequence of the presence of an EPP feature.

[6] For the sake of simplicity, from now on we will only refer to sentences (1) and (2) as examples of ISCs with V-O agreement and ISCs without V-O agreement respectively. We will therefore take (1) to mean (1)-(3)-(5) and (2) to mean (2)-(4)-(6).

[7] We do not examine here those approaches which consider (2) as an idiosyncratic construction, such as Sánchez López (2002).

[8] In this table, # stands for grammatical but inappropriate or semantically strange, * stands for ungrammatical.

[9] Fano is in Marche, central Italy, in the Pesaro-Urbino province. PD stands for Padua, MI for Milan, AQ for L'Aquila, central Italy, TE for Teramo, central Italy on the East coast, FI for Florence.

[10] *Se* is an allomorph of *si* that occurs when si precedes another clitic. This phenomenon is common to other clitics as well, like in *ce ne*, *glielo* and so forth.

[11] We leave the adverbial phrase *a tutto spiano* aside for the moment and concentrate only on the agreement patterns. The role played by the adverbial phrase will result clearer in chapter 5.

[12] It is worth remarking that Rumanian also has a dative *se*.

[13] This rephrasing is not accurate, however, as Belletti does not talk of Accusative assignment, but of 'absorption', following Baker, Johnson & Roberts's (1989) analysis of passives. Accusative is absorbed and the external θ-role is blocked, or withdrawn (Cinque 1988).

[14] Observe that Cinque talks about *θ*-role *withdrawal*, not absorption. However, he does not specify how withdrawal differs from absorption. We will take withdrawal to mean blocking (i.e. no *θ*-role assignment) and absorption to mean that the *θ*-role has been assigned; in both cases, the *θ*-role is taken care of, and therefore it does not need to be assigned. We will adopt Cinque's terminology when summarizing his proposal.

[15] A similar property has been proposed by Baker, Johnson & Roberts (1989) for the past participle inflectional ending. As Cinque (1988) observes, this property should be however weakened in the case of impersonal *si*. As we saw above, in ISCs the external *θ*-role may not be reassigned by means of a *by*-phrase as in the case of passives. Impersonal *si* would be thus the only lexical item bearing the property of 'withdrawing' the external *θ*-role.

[16] Observe that (85) has also an additional reading, where *ci* is a malefactive indirect object: 'Somebody ate our apples'. We are not concerned with this reading now, but with the reading which involves an aspectual *si*.

[17] Observe that the first *si* is the aspectual one. We know this because of its distributional properties: impersonal *si* in Italian is always adjacent to the verb.

[18] We use the time adverbials here only for expository reasons. We do not assume, however, that these operations take place one after another. The temporal dimension is in fact not included in the syntactic model used here.

[19] Masullo (1992) observes that Icelandic QDCs are different from Spanish QDCs in many respects. He does maintain, however, that quirky datives in Spanish land in a structural subject position, and this is what matters for the present discussion.

[20] Henceforth, with the label 'psych verbs' we will only refer to the subclass of psych verbs of the *piacere* type exemplified in (22) and (23).

[21] It is worth noticing that some verbs, like *antojarse* ('to fancy, to take a fancy to'), and *olvidarse* ('forget'), do present a person restriction on the object, as shown by the following example with *antojarse*:

(i) *A Ana* *siempre se le* *antojan* *los* *mismos*
to Ana-dat always se her-dat cl fancy-3rd pl the same
*chicos/* *ellos*
guys/ they-Nom 3rd pl
'Ana always takes a fancy to the same guys/them'
[from Rivero (to appear:3)]

(ii) **A* *Ana* *sempre* *nos* *le* *antojamos*
to Ana-dat always we-1st pl her-dat cl fancy-1st pl
*nosotros*
we-Nom 1st pl
'Ana always takes a fancy to us' [from Rivero (to appear:4)]

(iii) **A Ana* *sempre* *os* *le* *antojais* *vosotros*
to Ana-dat always you-2nd pl her-dat cl fancy-2nd pl you-Nom 2nd pl
'Ana always takes a fancy to us' [from Rivero (to appear:4)]

Both in (38) and (39) and in (i)-(iii) the dative Experiencer *a Ana* occupies the specifier of the T projection (see Masullo 1992). We will address these issues in sections 4.2. and 6.3.

22 *v*QP corresponds to Pylkkanen's (2002) High Applicative projection.

23 In principle, nothing prevents the dative Experiencer from being merged in the specifier of *v*Q. The dative DP may also move to the specifie of *v*Q on its way to the specifier of T. In psych verb constructions, in fact, at least one of the two arguments is forced to move out of the VP; the reverse causes ungrammaticality, as shown by (i)-(iv):

(i) *A Gianni piace la cioccolata*
to Gianni likes-3rd sg the-sg fem chocolate-sg fem
'Gianni likes chocolate'

(ii) *La cioccolata piace a Gianni*
the-sg fem chocolate-sg fem likes-3rd sg to Gianni
'Gianni likes chocolate'

(iii) *A Gianni la cioccolata piace*
to Gianni the-sg fem chocolate-sg fem likes-3rd sg
'Gianni likes chocolate'

(iv) **Piace a Gianni la cioccolata*
likes to Gianni the-sg fem chocolate-sg fem
'Gianni likes chocolate'

(iv) is acceptable under a contrastive focus reading, like in (v), but not with a plain intonation:

(v) *Piace A GIANNI la cioccolata, non a Mario*
likes-3rd sg to Gianni the chocolate, not to Mario
'It is Gianni who likes chocolate, not Mario'

24 This sentence is grammatical under an interpretation that is not relevant here: 'People read books at Gianni's place'.

25 There is an exception to this general rule. The unvalued feature set on a pp or on an adjective may enter Multiple Agree both with a set containing a feminine $DP_1$ and with a set containing a masculine $DP_2$. In this case, the masculine set is conventionally selected for valuing the masculine gender feature.

26 Observe that Roberts assumes that clitics lack Case features, since this would make them distinct from the functional head they are hosted by. We do not share this assumption, but assume Case non-distinctness on functional heads.

27 It needs to be said that Roberts claims that clitic movement is only apparent, and that clitics do not bear Case. We do not adopt this system in full here, but wish to adopt the idea that *si* incorporates onto T and spells out its person feature. Furthermore, observe that Roberts's system predicts that the inflectional features of T should not be visible on the verb (i.e. on T itself) if they are spelled out by the clitic. This is indeed what happens in ISCs, where we see that the verb always shows default 3rd person inflection.

[28] Egerland proposes the label 'arbitrary' for the quasi-existential reading, and the label 'generic' for the quasi-universal reading. The term 'arbitrary' is used by Cinque with the rough meaning of 'something that may be both existential and non-specific'. Following Chierchia, we adopt the terms generic and existential when referring to the interpretation of sentences like (7) and (8) respectively.

[29] # denotes syntactic grammaticality but semantic/pragmatic oddity or unacceptability.

[30] In (32) and (33), the predicative NP has been left in the clause to make sure that the inclusive reading of *si* would be selected. An additional existential reading is in fact available for *si* in (32) and (33), as they contain verbs that project an external θ-role.

[31] We are considering the characteristics of prototypical present tenses here. The reader is referred to section 4.2.1. for the discussion of some apparent counterexamples to this generalization.

[32] The use of the future in modern Italian is mainly restricted to epistemic sentences, and does not express a future value but a purely epistemic one. As an example, consider the following sentence:

(i.) *Pioverà*
rain-3rd sg fut

(i.) usually means 'it might rain' rather than 'it will rain'.

[33] We follow the general convention and indicate a valued feature as [i]F (interpretable feature) and an unvalued feature as [u]F (uninterpretable feature).

[34] We will explain why the gender feature involves a disjunctive sub-feature in 5.3.3. In chapter 5, it will also be shown why *si* involves a [plural] sub-feature. For the moment, we indicate these sub-features here without explaining them for completeness.

[35] Chierchia's analysis is much more complex. He actually shows that *si* behaves like an indefinite in some cases and like a pronoun in others, for instance with respect to anaphoric binding. Moreover, he shows that ISCs with a generic interpretation need to be further specified by means of a syntactically projected restricting property (see also Diesing 1992). If this restricting property is missing, like in (i), the reading is hard to get:

(i) *Si canta*
si sings
'People sing'

In (i), a context is necessary in order to create the restriction over the predicate. I will not enter into the discussion of restrictors here. The reader is addressed to Mendikoetxea (2002) for an analysis of the existential reading of si.

[36] In this text, we will use square brackets to indicate both sub-features and all kinds of features that are not traditionally recognized as φ-features.

[37] Iatridou, Anagnostopoulou & Pancheva assume that imperfective is located on the Aspect projection, while perfective is located above it, in the Perfective projection. For our aims, we may assume a simplified version of Iatridou,

Anagnostopoulou & Pancheva's analysis, and consider both perfective and imperfective as located on the Aspect projection.

38 We do not assume (*contra* Chomsky 2005:b) that only phase heads are probes.

39 For the present analysis, we adopt the simplified structure outlined in (21). However, there seems to be evidence from southern Italian varieties indicating that the *v*P structure is more complex than the structure we see in (21). In particular, in these varieties we see that the pp remains very low in the structure in some cases, arguably lower than the *res*P (if the event is telic), but also lower than the *v*P (if the event is atelic). Therefore, we should conclude that an additional *v* phrase is present, selected by *res* (or *v*). This would explain why pp agreement with the external argument is possible in these varieties, where the external argument is licensed by *v*. For a detailed discussion of these facts, the reader is addressed to D'Alessandro & Roberts (2007b).

40 Observe that D'Alessandro & Roberts (2007a) assume that the auxiliary is merged in *v*. We can however assume that the auxiliary is merged directly in T, and this would not cause any relevant change in the analysis.

41 In this tree diagram, we represent the Match between the φ-features of *si* and those of T (aside from person, which is valued by cliticization) in the TP for expository reasons. However, the features of T Match with the features of *si* when *si* is in its merge site, as discussed at length in chapter 2.

42 In these tree diagrams, we will try to represent only the features that are directy involved in the derivation. Therefore, the fact that *si* seems to be composed by different features at different stages of the derivation is only due to the representation we give it in these diagrams. The featural composition of lexical items, obviously, does not change during the derivation.

43 As pointed out to me by Theresa Biberauer, this might suggest that the sub-features might in fact be higher up in the feature structure than the φ-features, as they seem to enter Agree first. This would be an appealing conclusion. We do not have further evidence for this claim here, and therefore we leave this issue aside for further investigation.

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