

Definiteness Effects

Definiteness Effects:

Bilingual, Typological and Diachronic Variation

Edited by

Susann Fischer, Tanja Kupisch
and Esther Rinke

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PREFACE

During the last four decades, especially with the rise of discussions on the syntax-semantics interface, definiteness restrictions have received increasing attention in theoretical and empirical research. Our idea has been to discuss and collect the different views in a single volume on “*Definiteness effects: typological, diachronic and bilingual variation*”. Most of the papers were presented at the DGfS (Deutsche Gesellschaft für Sprachwissenschaft) in 2012 in Frankfurt; additional papers were added by approaching leading experts on the topic. Now, some years later, we are proud to present you with 14 papers of cutting edge research on the topic. We hope that you will enjoy the articles as much as we have.

There are quite a few people to whom we want to express our sincere gratitude for their help and support. Many thanks to the people who helped us reviewing the papers in the present volume: Artemis Alexiadou, Giuliano Bocci, Charlotte Coy, Barbara Egedi, Valentin Gusev, Wolfgang Meyer, Sabine Mohr, Svetlana Petrova, Oliver Schallert, Emanuela Sanfelici, Neal Snape, Renata Szczepaniak, Xavier Villalba, Jorge Vega Vilanova, Marina Zielke, and Michael Zimmermann,

We would also like to thank Sarah Jobus and Kirsten Brock for their comments and corrections on our introductory chapter, and Luana D’Agosto, Miriam Geiss, Sarah Jobus, Julia Ritz and Sarah Zander for their help with the formatting and final proof reading.

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INTRODUCTION

SUSANN FISCHER, TANJA KUPISCH
AND ESTHER RINKE

Since Milsark (1977) and Perlmutter (1978) it has been well known that in certain sentence positions indefinite noun phrases are permitted (see 1a and 2a), while definite noun phrases are excluded (see 1b and 2b). Restrictions of this kind are termed “definiteness effects” and have been observed in existential (1) and unaccusative (2) constructions.

- (1) a. There is a cat in my garden.
b. *There is the cat in my garden.
- (2) a. There arrives a train.
b. *There arrives the train.

The definiteness effect (DE; also *definiteness restriction*) has been discussed within different linguistic areas including syntax, semantics, and pragmatics, as well as combinations thereof. However, so far, no account has been able to explain all aspects pertaining to this phenomenon, including its motivation, exceptions to it, and variation across languages.

Discussions have mostly been based on English, although analyses of languages other than English have revealed typological variation with respect to the DE. For example, based on Italian, a null-subject language in which definite subjects are licensed not only in preverbal (3a) but also in postverbal (3b) position, it has been discussed whether null-subject languages generally allow exceptions to the DE.

- (3) a. Il ragazzo è arrivato.
the boy is arrived
b. È arrivato il ragazzo.
is arrived the boy
'The boy has arrived.'
- (Belletti 1988: 7)

However, Turkish and Russian, despite also being null-subject languages, show definiteness effects in affirmative but not in negative existentials (White et al., 2012). Such observation call into question whether the DE is a universal phenomenon that can be traced to a common source, like for example the null-subject parameter.

A thorough comparison of inter- and intra-linguistic variation shows that the DE correlates with a number of language- and construction-specific properties. It turns out that, at least in some languages, existential sentences can be subdivided into different types, with each type behaving differently with respect to the DE. Furthermore, the information-structural interpretation of certain constructions and particular properties of strong pronouns, for example in Catalan, may have an impact on the DE.

From a diachronic perspective, a relevant question is whether one particular language has shown the DE in all its diachronic stages and whether the restriction has always been equally strict. For example, based on data from Old and Middle French, some authors argue that the DE may surface in different ways across languages, and that the DE is construction dependent and correlates with changes in the clausal architecture of the language. By determining the factors relevant for the development of the DE in different constructions and languages, diachronic studies can contribute to answering central questions about the interplay between syntactic structure on the one hand, and semantic and pragmatic factors concerning the interpretation of sentences which do or do not abide by the DE on the other hand. Similarly, learner behaviour in language acquisition studies may help us to distinguish universal trends from language-specific patterns. Studies in second language acquisition show how learners acquire the DE and whether or not L2 production is dependent on DE effects in their native language(s). For example, if learners acquire the DE in a second language although it plays out differently in their first language(s), there are good reasons to argue that the DE is a semantic universal to which learners have access at all stages of language acquisition.

In general, observations on definiteness restrictions have played an important role in the development and design of syntactic and semantic theories. They have influenced the way in which feature checking and the syntactic movement of objects and subjects are envisioned, and they have shaped our views on the syntax-semantics and semantics-pragmatics interfaces. For these reasons, the DE has received increasing attention over the past few years. However, most of the relevant studies are scattered in conference proceedings, working papers, and dissertation chapters, and are often hard to obtain. Our collection intends to fill this gap by offering a

compendium of up-to-date research. In particular, the book aims at contributing to the ongoing discussion about definiteness restrictions within a generative framework by presenting different perspectives –the typological, diachronic, and second language acquisition perspectives– in a single volume. While primarily focussing on the key syntactic features of the DE, many of the papers also address its semantic and pragmatic aspects and the syntactic-semantic interface, using different methodological approaches, including, for instance, corpus searches, introspection, and grammaticality judgement tasks.

The book consists of 14 chapters, which are representative of theoretically driven empirical research. The data covers Romance languages (Catalan, French, Italian, Spanish) and Germanic languages (English, German) as well as Bulgarian, Japanese, Turkish, and the Samoyedic languages.

The introductory papers by ADRIANA BELLETTI & VALENTINA BIANCHI and by MANUEL LEONETTI explore the syntactic, semantic, and information-structural foundations of the DE in unaccusative and existential constructions and develop existing proposals by adding new empirical and theoretical insights. Belletti & Bianchi focus on syntactic and semantic aspects, while Leonetti is primarily concerned with the impact of information structure on the DE.

Based on Belletti's (1988) original proposal, BELLETTI & BIANCHI reconsider the status of VP-internal unaccusative subjects (i-subjects), proposing a unified analysis for the i-subjects of unaccusatives and the subjects of existential sentences which assumes that in these constructions no phi-complete probe is available which can check nominative Case via Agree. According to Belletti & Bianchi, i-subjects correspond to a defective nominal projection (NumP) which receives Partitive Case via Agree with a defective probe lower than T. This probe contains number and gender features but lacks a person feature. As a consequence of this defectiveness, i-subjects lack the D-layer. Therefore, they cannot saturate arguments and are interpreted as property-denoting elements which are incorporated into the predicate. Under this view, only weak indefinites can be i-subjects. Definite postverbal subjects, by contrast, are analysed as occupying a vP/VP-peripheral focus position.

- (4) *pro* è arrivata la ragazza. (Italian)
 is arrived.F.SG the girl

Overall, BELLETTI & BIANCHI see the DE as a deep and defining property of unaccusative verbs. Their view is supported by the early sensitiveness

to the definiteness of the postverbal subject with unaccusative verbs in first language acquisition.

MANUEL LEONETTI emphasizes the role of information structure (IS) in the analysis of the definiteness effect, arguing that the DE arises in two IS configurations: In constructions with wide focus the occurrence of anaphoric definite DPs is generally banned. In constructions with narrow focus exceptions are possible when the DP receives an availability/list reading. His account explains exceptions to the DE effect as the result of pragmatic inferences. In other words, pragmatic inferences can “repair” semantic mismatches by contextualizing the interpretation of the definite pivot in terms of narrow focus and an “availability reading”, as illustrated in (5).

- (5) (answer to the question: *Who can we leave the children with?*)
 C’ è tua sorella.
 Loc is your sister
 ‘There’s your sister.’

Pragmatic inference is also held responsible for the resolution of cases of competing candidates in languages in which more than one form is available for a single meaning (e.g. Spanish and Sardinian *haber* ‘have’ vs. *estar* ‘be’) – the unmarked formal option is selected. Since *estar* is an alternative to *haber* in existential sentences, the DE is robust in Spanish/Sardinian *haber* constructions. In contrast, languages such as English and French may display definite pivots (with an ‘availability’ reading) in existential constructions because no competing option is available.

Although the two introductory papers focus on different aspects of the DE, the authors of these papers agree that the DE arises as a consequence of syntactic, semantic, and information-structural factors. Furthermore, they jointly assume that lexical factors play a role: Belletti & Bianchi propose that the DE is a defining property of unaccusative verbs; Leonetti attributes cross-linguistic differences to the availability of competing options in the lexicon. The authors also agree that exceptions to the DE are possible when postverbal definite subjects receive a narrow focus interpretation.

The second part of this book discusses the DE from the perspective of typological variation, specifically, the question whether the DE figures across languages and under which conditions this is the case. A general theme is the discussion of exceptions to the DE in the languages under consideration and how to account for them.

escape hatch for an otherwise illegitimate definite/specific DP in existential constructions, Varley argues that the DE as a grammatical constraint should be maintained. Apparent DE violations in Bulgarian existentials are due to independent discourse features in the syntax.

XAVIER VILLALBA discusses existential constructions in Catalan. Like in Italian, existentials in Catalan allow definite DPs and proper nouns in the pivot position but show a strong restriction against personal pronouns.

- (7) a. Hi havia el degà, a la reunió.
 LOC had the dean at.the.F meeting
 ‘At that meeting, the dean was present.’
 b. *Hi ha ell.
 LOC has he
 ‘He is here.’ (Rigau, 1988: ex. 2d)

Villalba proposes that the DE in Catalan results jointly from pragmatic requirements on pivots concerning the existential predicate and the nature of the elements occurring in the pivot position. Pronouns are banned from pivot positions because the pragmatic and informational requirements of pivots exclude anaphoric elements. In addition, Catalan strong pronouns in pivot position cannot be contrastive because they cannot alternate with a clitic, or a weak or a null variant. However, when the contrastive reading is obtained by ‘external means’, such as focus particles (*only*) or reinforcers (*oneself*), pronouns receive a stronger referential interpretation and can be rescued as pivots.

BEÁTA WAGNER NAGY discusses definiteness in several Samoyedic languages, e.g. Selkup and Nganasan, focussing on existential, locative, and possessive constructions in Nganasan. The Samoyedic languages have neither definite nor indefinite articles, which makes it more difficult to see what falls under the definiteness effect and what interacts in these constructions. The author shows that one way to express definiteness in Samoyedic languages is through the non-possessive use of possessive suffixes; furthermore, she demonstrates that possessive and existential constructions are closely related.

- (8) *məu-ðu s'ürü ŋil'ənu čii-məə*
 earth-3SG snow.GEN under hide-PTCP.PASS.3SGVX
 ‘The earth is hidden under snow.’ [KNT, 1994]

Wagner Nagy proposes that the choice of the copula verb is decisive for the interpretation of a given sentence. All Northern Samoyedic languages have different copulas for locatives as compared to existential sentences.

In cases where no explicit morphological marking for the definiteness of the theme (neither a different copula nor a definiteness marker) is present, as in Selkup, locational and existential sentences only differ from each other in terms of word order.

Overall, all authors agree that the DE is a universal phenomenon which arises from the complex interplay of syntactic, semantic, and information-structural factors. They further agree that exceptions to the DE are only apparent and can be explained as alternative constructions which are only superficially identical to existential or unaccusative constructions, for example pseudo-existentials in Italian (Cruschina) or topicalization structures in Bulgarian (Varley). Similarly, there are certain means by which the NPs of an existential sentence can be modified so that the definiteness effect is avoided (Wagner Nagy). Like Belletti & Bianchi and Leonetti, the authors highlight the role of information structure in accounting for exceptional occurrences of definite noun phrases (cf. in particular Villalba's analysis of Catalan).

The third part of the book is concerned with definiteness effects from a diachronic perspective, focussing on different constructions, e.g. impersonal constructions and small clauses. A central question is whether the structures under investigation have remained diachronically stable with respect to the DE, and which factors have influenced the DE in various diachronic changes.

WERNER ABRAHAM & MAIKO NISHIWAKI are concerned with modal verbs and definiteness interpretations of the subject argument of modal verbs; specifically *sollen* 'shall' in Modern Standard German and *suln* 'shall' in Middle High German are investigated. Their starting point is the generalization that certain features of past marking on the predicate elicit evidential readings of the German modal verb *sollen*. Abraham and Nishiwaki discuss to what extent contextual factors (aspectuality of the infinitival complement, grammatical person on the modal predicate) trigger definiteness effects on the embedded infinitivals. In other words, they seek to find how the polyfunctionality of German(ic) modal verbs is disambiguated through the (in)definiteness reading of the embedded construction. The contribution uses insights from the well-known relation between aspect and definiteness, which are claimed to be exponents of one and the same superordinate notion.

CHARLOTTE COY investigates the diachronic development of different kinds of existential constructions in French. Based on a diachronic corpus study, she identifies exceptions to the DE and explores their diachronic evolution. The paper shows that the existential constructions under investigation have evolved differently: *il y a*, which is the oldest

construction, shows a continuous increase in the types of definite determiners in the postverbal DP as well as in their frequency. *Il existe*, by contrast, is a more recent construction and co-occurs only rarely with a definite postverbal DP. Coy accounts for this discrepancy by arguing that *il existe* introduces a genuine existential construction, whereas *il y a* often fulfils other functions, appearing, for example, in ‘list readings’, as ‘reminders’, or to denote ‘locations’. Coy’s data provides evidence in favour of a higher degree of grammaticalization concerning the *il y a* construction.

SUSANN FISCHER compares the distribution of definiteness effects in unaccusative and existential constructions across Romance. She argues that definiteness effects in unaccusatives have a syntactic explanation, while the DE in existential constructions has a semantic or pragmatic explanation. According to her analysis, the DE in unaccusatives is dependent on whether a language is a null-subject language or not, since in null-subject languages it is the verb that checks the EPP, and, as a consequence, postverbal subjects are allowed in positions where they escape a weak existential interpretation (cf. Fischer 2010). The DE in existential sentences, by contrast, is independent of whether a language is a null-subject language or not. In existential sentences, a number of other factors, such as word-order variation and its connection to information structure, play an important role.

JORGE VEGA VILANOVA provides a new approach to absolute small clauses on the basis of new data from Modern and Old Catalan, e.g. *Un cop acabats els deures, podeu sortir a jugar* ‘When you finish your homework, you can go and play’ [literally, ‘Once finished the homework’]. Based on a comparison of the properties of absolute small clauses across Romance, the author shows that some of their properties have not been properly explained in previous accounts. For instance, the nominal argument of small clauses shows definiteness restrictions that are not attested in Old Catalan. In order to explain these restrictions, Vega Vilanova proposes an extended syntactic structure for absolute small clauses. More specifically, he argues that the aspectual feature of the participle is decisive in explaining the definiteness restriction on the nominal argument. The author thus shows that the definiteness restriction on absolute small clauses is different in nature from the definiteness effect in existentials or unaccusatives, despite some similarities between these three types of constructions.

MICHAEL ZIMMERMANN investigates the DE based on impersonal constructions (ICs) in medieval French and discusses the relation between the DE and the null-subject property. His starting point is the fact that

Modern Standard French generally shows Definiteness Effects, although there is a small set of well-defined exceptions. Since Modern Standard French is a non-null-subject language, this observation is consistent with the postulated link between the DE and the non-null-subject property. In its medieval stage, i.e. before the 17th century, French has often been analysed as a null-subject language because subject pronouns are not consistently overt. This view, however, has been debated, since the omission of subjects is syntactically constrained. Given this controversy, a relevant question is whether or not the DE can be observed in the medieval stages of French. Zimmermann discusses this question based on ICs in a large diachronic data corpus. He argues that, like in Modern Standard French, the DE is also found in medieval French, thus supporting his analysis of medieval French as a non-null-subject language.

All the authors in this section contribute to the discussion on the defining properties of the DE on the basis of diachronic data. Coy shares with authors of previous chapters (e.g. Leonetti and Cruschina) the idea that languages may have different ways of realizing existential constructions and that existentials proper have to be differentiated from other (superficially identical) constructions. Fischer and Zimmermann, for example, argue against the view advocated by Belletti & Bianchi that the DE is a defining property of unaccusative verbs that holds universally. Rather, the availability of the DE depends on whether a language is a null-subject language or not. Zimmermann argues with respect to French that the existence of the DE throughout the history of the language shows that the language has always been a non-null-subject language. Fischer distinguishes between unaccusatives and existentials. Only the latter universally exhibit the DE, whereas the former only show it when the language is a non-null-subject language. Vega Vilanova and Abraham & Nishiwaki focus on constructions other than existentials and unaccusatives, specifically absolute small clauses (Vega Vilanova) and modal constructions (Abraham & Nishiwaki). They provide evidence that the DE may be present but figures differently depending on the construction.

The final part of the book combines three studies on the acquisition of the definiteness effect. All three studies investigate transfer effects in the acquisition of the DE in L2 learners of English or Spanish, and all three involve one language which does not show the DE in negative existentials, either Japanese or Turkish, so that transfer can be systematically predicted. While Snape & Sekigami and Zielke are concerned with L2 acquisition in the traditional sense, Kupisch addresses the question of the transfer source when two languages have been previously acquired.

TANJA KUPISCH is concerned with the role of cross-linguistic influence in the acquisition of the Definiteness Effect in English as a third language (L3) by German-Turkish bilingual speakers. The central questions are whether the speakers transfer the knowledge of the DE from one of their early acquired languages to their third language English and, if so, whether transfer depends on language dominance or typological proximity. Three different groups of speakers were tested: Turkish dominant bilinguals, German dominant bilinguals, and a group of balanced bilinguals. Since the DE differs systematically between Turkish and English, but not between German and English, problems with the DE in English could point to transfer from Turkish. More specifically, transfer from Turkish should result in problems with negative existentials since this is where Turkish differs from English and German. The experimental data show better performance with acceptable sentences than with unacceptable ones, but no noticeable effects of transfer. The three groups of speakers did not differ in their accuracy rates and did not behave differently with respect to positive and negative existentials. This indicates that neither language dominance nor typological proximity foster transfer concerning the DE.

NEAL SNAPE and SETSU SEKIGAMI investigate Japanese L2 learners of English regarding affirmative and negative existential sentences to see whether they accept violations of existential *there* constructions such as, for example, **There is the man in the room*. As Snape and Sekigami argue, although Japanese L2 learners are known to struggle when using English articles, they may nevertheless know how definiteness functions. Similar to Turkish (cf. Kupisch, this volume; Zielke, this volume), Japanese shows the DE in affirmative sentences but not in negative sentences, so that cross-linguistic influence, if it occurs, should be visible with negative existentials. By testing 10 Japanese learners of English Snape & Sekigami show that Japanese L2 learners of English at advanced levels of proficiency are able to differentiate between grammatical and ungrammatical affirmative and negative existential sentences, while intermediate learners cannot detect the ungrammaticality of strong DPs in existentials. The results show that sensitiveness to the English DE is related to the learner's level of English; the higher the proficiency level, the more likely it is that the learner will be able to detect ungrammaticality (in general and with respect to strong definites in existentials). The data suggest that problems with articles in second language acquisition may be unrelated to definiteness.

MARINA ZIELKE investigates the acquisition of the DE in existential constructions in L2 European Spanish by monolingual L1 speakers of German and Turkish. The DE in European Spanish and German shows

similar effects, while Turkish differs from these two languages in that positive existentials show a DE, whereas negative existentials do not. Based on an acceptability judgement task, Zielke shows that all groups except the intermediate L1 Turkish group acquire the DE very well. The results thus show advantages in the acquisition of the DE if there are strong similarities between L1 and L2. At the same time, differences between L1 and L2 can be overcome at advanced levels of proficiency. Thus, in line with Snape & Sekigami's results, proficiency plays a role.

In summary, all three papers on foreign language acquisition show that the DE can be acquired at advanced levels of proficiency, independently of differences between the learners' first and second languages. These results suggest that the DE is a semantic universal to which learners have access throughout their lifespan.

All in all, the book brings together different approaches to the DE with fresh data from hitherto unexplored languages. Even from this short overview of the different papers, it seems clear that the DE can only be accounted for when different linguistic levels are included in the analysis of the phenomenon. Diachronic and acquisition data support the robustness of the effects in the evolution of language across centuries and within language learners. Thus, the contributions in this book provide new empirical insights and, we hope, carve new paths for future investigations.

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I

INTRODUCTORY PAPERS

CHAPTER ONE

DEFINITENESS EFFECT AND UNACCUSATIVE SUBJECTS: AN OVERVIEW AND SOME NEW THOUGHTS*

ADRIANA BELLETTI AND VALENTINA BIANCHI

1. Introductory Overview

Milsark (1974, 1977) in his seminal work singled out a property which typically affects the post-verbal noun phrase of existential clauses in English *there* sentences like (1a): this noun phrase must be indefinite. He also noted that, in this language, the same property affects the post-verbal noun phrase of certain verb types (e.g. appearance verbs.) as in (1b), also possible in *there* sentences, although at a peculiar stylistic level in this case (e.g. fairy-tales etc.):

- (1) a. There is a man/*the man in the garden.
b. There arose a storm / *the storm here.

Before the unaccusative hypothesis made its way in the forefront of the theoretical debate in formal syntax (Perlmutter 1978, Burzio 1986), Milsark called these verbs the “inside verbals”, thus anticipating the fundamental insight of the unaccusative hypothesis according to which the

* We thank David Beaver, Frédérique Berthélot, Cornelia Hamann, Günther Grewendorf, Petra Schulz, Ur Shlonsky for feedback on (often subtle) data. Although this article has been conceived and worked on jointly in all steps of its elaboration, Adriana Belletti takes direct responsibility of sections 2.3, 4.1, 5, 5.1, and Valentina Bianchi of sections 2.1, 2.2, 3, 4.2, 4.3. The introductory and concluding sections 1, 2 and 6 are in common. Adriana Belletti’s research was funded in part by the European Research Council/ERC Advanced Grant 340297 SynCart – “Syntactic cartography and locality in adult grammars and language acquisition”.

nominal argument of an unaccusative verb, which can appear in the post-verbal position of *there* sentences and which in SV declaratives is the preverbal subject of the clause, is in fact its internal argument and never is nor was an external argument (following Williams' 1981 influential terminology, widely adopted ever since). This property came to be known as the *definiteness effect* (DE). Much work has been devoted to *there* sentences and to the DE more generally in the eighties and later, also adding a crosslinguistic dimension by introducing descriptions in the same domain of languages different from English (Safir 1982, Stowell 1981, Williams 1984, Belletti 1988, Lasnik 1992, 1999, more recently Deal 2009, Fischer this volume and references cited therein; McNally 2011 for a review of the semantics literature on existential sentences; see also further references cited throughout, although no list can do justice to such a long lasting debate).

DE characteristically emerges in structures featuring an expletive and a post-verbal subject in either existential sentences like (1a) or in sentences with an unaccusative verb as in (1b); similarly, the effect shows up in (2a) and in (2b) in French and in sentences with a transitive verb in the passive voice as in (2c), again illustrating with French. In all cases, only an indefinite noun phrase can occupy the postverbal position.

- (2) a. Il y a trois filles ici.
 EXPL there have.3SG three girls here
 'There are three girls here.'
- b. Il est arrivé trois filles/*les filles.
 EXPL is arrived.MSG three girls/ the girls
 'There arrived three /*the girls.'
- c. Il a été tué un homme/* l'homme.
 EXPL has been killed.MSG a man / the man
 'There was killed a man/*the man.'

This type of sentences open up the issue of the licensing of the postverbal noun phrase; since this noun phrase corresponds to the preverbal subject of SV declaratives containing the same verb, it is often referred to as a postverbal subject. Within Government and Binding, one main issue was to account for the licensing of the postverbal subject w.r.t. Case. The proposed solution was to link the expletive and the associate noun phrase by means of a representational chain, whereby the expletive received Nominative Case in the preverbal subject position/Spec,IP and transmitted it to the associate; by hypothesis, only indefinite noun phrases could enter such a representational chain without violating any constraint, most notably the Binding Condition C (see Safir 1982: 172 ff., 239 ff.; Safir

1987; Rizzi 1982). Moreover, by means of this chain the features of the associate NP could be transmitted to I°, thus accounting for verb agreement in English (visible in e.g. 6 below). Later on Chomsky (1995 and references cited there) proposed instead a derivational relation, whereby the associate NP moves at LF and replaces the uninterpretable expletive in Spec,IP; this movement is triggered by the principle of Full Interpretation, whereby at the interface with semantics, the LF structure cannot contain any uninterpretable elements.

At that stage of research, it was also assumed that null subject languages like Italian do not manifest the DE, rather, they display generalized “free” subject inversion, as exemplified in (3). It was assumed that in these languages, Spec,IP is filled by a phonologically null expletive *pro*; lack of DE was attributed to the hypothesis that Nominative Case could be directly assigned to the subject in its postverbal position (under government) in this type of language:

- (3) *pro* è arrivata la ragazza. (Italian)
 is arrived.F.SG the girl
 ‘The girl has arrived.’

Belletti (1988) departed from this line of analysis in both respects. On the empirical side, she argued that even in a null subject language like Italian, the DE does arise when the postverbal subject fills the thematic internal argument position, rather than being in a ‘peripheral’, position external to the verb phrase (VP-adjoined, as in “outside verbals” in Milsark’s 1974 terms; Deal 2009 for recent rediscussion along these lines). In (4), for instance, the postverbal subject precedes a PP complement with no intonational break between the two, hence it cannot be external to the verb phrase, right adjoined to VP: in this configuration, the DE can actually be detected.¹

- (4) a. All’improvviso è entrato un uomo /*l’uomo dalla finestra.
 suddenly is entered a man / * the man from-the window
 b. E’ stato messo un libro /*il libro sul tavolo.
 be.3SG been put a book / the book on-the table
 (Belletti 1988: 9, (17a-b), (18a-b))

¹ If an intonational break precedes the PP, a different structural analysis is possible, whereby the postverbal subject is peripheral to the verb phrase and the following PP is right-dislocated. On this type of option for postverbal subjects, see the discussion in section 5 below.

This in fact naturally leads to the claim that there is no such thing as a generalized process of “free” subject inversion, but that postverbal subjects come in different types and are of different nature also in a null subject language like Italian, a view later developed in further detail in the frame of the cartographic approach (Belletti 2004 and section 5 below). Hence, the fact that in a language like Italian a postverbal subject is also possible with transitive and intransitive verbs as well as with unaccusatives independently of its definite (as in e.g. 3) or indefinite nature should be kept distinct from the phenomenon illustrated by the indefinite postverbal subjects of sentences like those in (4), which pattern with the English and French examples in (1) and (2).

On the theoretical side, Belletti’s proposal completely dissociated the licensing of unaccusative subjects obeying the DE from the licensing via Nominative Case. In particular, she argued that the indefinite subject in (1), (2) and (4) does not inherit Nominative Case from the expletive in Spec,IP, due to the presence of the VP barrier and, more generally, to the assumed lack of Case transmission processes altogether; rather, the indefinite subject is directly Case-licensed by the unaccusative verb (a view later shared in Lasnik 1992, 1999). The latter assigns Partitive Case – an inherent-type Case associated with the internal argument position and which, because of its semantic import, is only compatible with indefinite noun phrases. According to Belletti’s (1988: 3) proposal, Partitive Case is not a Case lexically associated with a specific Th-role; rather it is associated with a structural position, the internal argument position to which the verb assigns a Th-role in connection with the first Merge operation. The fact that assignment of Partitive Case is contingent on assignment of a Th-role by the head V makes this Case more akin to an inherent Case than to a structural Case, assuming the bipartite distinction inherent vs structural Case operating in Government & Binding. However, as is discussed in Belletti (1988) and will be further addressed in the following discussion (section 4.1.), assignment of Partitive Case crucially involves the structural property of concerning the internal argument position.²

On the other hand, Nominative Case assignment (under government) is still invoked for postverbal subjects which are external to the verb phrase,

² The fact that inherent Case is often typically associated with a particular Th-role does not imply that it always is/must be (Belletti 1988, section 2); the term lexical Case is sometimes used to refer to an inherent Case which is associated with a particular Th-role; sometimes Partitive Case can have this status as well, as mentioned in Belletti (1988: footnote 6). For critical views on the inherent nature of Partitive Case see Vainikka & Maling (1996).

hence in a different position than the internal argument position; no DE is manifested in these cases, which are possible with all verb classes, transitive, intransitives and also unaccusatives; the example in (3) illustrates the point with an unaccusative verb. Thus, this analysis sharply distinguishes *VP-internal* from *vP/VP-peripheral* “inverted/post-verbal subjects”³.

In hindsight, Belletti’s proposal about the special licensing of VP-internal unaccusative subjects can be connected to a more general observation due to Diesing (1992). Noun phrases have different semantic properties according to whether they are interpreted inside or outside the verb phrase: indefinites, on their weak non-presuppositional interpretation (see section 2), appear inside VP, whereas presuppositional indefinites, as well as definite and strong noun phrases, seem to be licensed and interpreted in a position external the verb phrase (see de Hoop 1992, Ladusaw 1994, Diesing & Jelinek 1995 for further developments of this idea). This body of research has left us with an important insight that is worth rethinking in the light of current theoretical assumptions, also more closely considering the interface between syntax and semantics:

- (5) VP-internal unaccusative subjects (henceforth: *i-subjects*, for *internal* subjects) involve a special licensing route which necessarily correlates with the DE.

In this article we reconsider the status of *i-subjects* and we propose a principled account of the DE that singles them out from other instances of postverbal subjects in inversion structures. In a nutshell: building on Belletti’s (1988) original insight, we propose in current terms that *i-subjects* cannot be licensed via the usual Case/Agree route involving a phi-complete probe, i.e. T (for nominative) as in the minimalist reformulation of ‘structural Case’. We argue that, because of this licensing defectiveness, they cannot be interpreted as saturating arguments; rather, they must be interpreted at the interface as denoting a property; this crucially yields DE. The internal argument of unaccusatives corresponds to a defective nominal projection (NumP) and is syntactically licensed via Agree with a defective

³ The label vP incorporates the by now familiar notation inspired by the minimalist tradition according to which transitive and intransitive verbs are inserted in a vP shell containing further functional verbal elements as light verbs (“small v”) introducing the external argument and, possibly, other arguments of the verbal root. Unaccusatives are instead typically inserted in a VP, with no further small v (or anyway a somewhat reduced vP-shell; see the proposal on the existential verb phrase put forth in section 2.3). Section 4 and footnote 32 below for more.

ϕ -probe lower than T containing number and gender features, but lacking the feature person. We locate the defective probe immediately above the projection of the lexical verb; the weak indefinite (NumP) is thus associated with Partitive Case through the Agree relation with the defective probe. This licensing route is typically unavailable for the external argument of (active) transitive and intransitive verbs. We assume that the defective nominal projection must be interpreted at the interface as denoting a property, and that it undergoes a form of ‘semantic incorporation’ (for which we will assume the implementation proposed by Chung & Ladusaw 2004). In this study we will also briefly reconsider some crucial features of existential sentences in which the DE is typically manifested in a standard way and reduce the fundamental aspects of this instance of DE to the type of computation that we assume to be generally at play with unaccusative verbs; we assume that the existential verb is indeed an unaccusative verb (as already first proposed in Burzio 1986, Stowell 1981 and then Moro 1997), with its own internal argument (following Williams’ 1984 original insight, in the terms already sketched out in Belletti 1988: footnote 5).

The article is organized as follows. In section 2, after introducing the distinction weak vs. strong noun phrase, we give a more precise characterization of the DE: on the one hand, we show that *i*-subjects are not simply required to be indefinite, but more precisely *weak (non-presuppositional) indefinites*, as they are unable to take wide scope w.r.t. negation (section 2.1); on the other hand, building on Vangsnes (2002), we distinguish the radical DE of *i*-subjects from a less tight restriction on definiteness that affects other types of postverbal subjects as in the so called Transitive Expletive Construction (TEC) (section 2.2). In section 2.3 we discuss existential sentences, and propose that the post-copular noun phrase is selected by the unaccusative existential verb (*be*). This discussion leads us to conclude that non-presuppositional indefiniteness is only required for internal arguments of unaccusative and passive verbs when they are licensed *in situ*, i.e. as *i*-subjects.

In section 3 we show that the cluster of properties characterizing *i*-subjects is shared by an apparently unrelated type of noun phrase, namely Maori *he*-indefinites as described in Chung & Ladusaw (2004, chapter 2): these too (a) are non-presuppositional, (b) necessarily take narrow scope w.r.t. negation, and (c) are restricted to the internal argument position. In section 4 we propose that this cluster of properties is a consequence of their syntactic licensing (section 4.1); this licensing triggers, at the interface, the application of the compositional rule of Predicate Restriction (section 4.2).

In section 5 we turn to the peripheral post-verbal subjects of Italian (exemplified in (3) above), which are exempt from the DE: we adopt and extend the analysis proposed in Belletti (2004), according to which these subjects are licensed in a Focus position in the periphery of vP/VP. In section 5.1 we show that the double licensing route for postverbal subjects in Italian (VP-internal vs. vP/VP-peripheral) can nicely account for some recent findings from L1 and L2 acquisition, which lend original new support to the unaccusative hypothesis through the manifestation of DE, which we view as a core property of unaccusatives. Finally, in section 6 we offer a summary and some concluding remarks.

2. A Closer Look at the Definiteness Effect

The type of contrast exemplified in (1) above only involve indefinite vs. definite noun phrases; but the DE actually distinguishes two larger classes of noun phrases, which Milsark (1974) dubbed weak and strong, respectively:

- (6) a. There is a hole in my blanket.
 b. There are {three/some/many/no/a lot of} holes in my blanket.
 (weak noun phrases)
- (7) a. *There is {every / each / neither} hole in my blanket.
 b. *There are {most / both / all} holes in my blanket.
 (strong noun phrases)

Following Milsark's insights, the weak/strong opposition has been characterized in semantic terms. According to the relational view of quantification (Barwise & Cooper 1981, Keenan 1987), a quantificational determiner expresses a relation between the set of entities denoted by the noun it introduces – dubbed the restriction of the quantifier (R) – and the set denoted by the predicate, dubbed its nuclear scope (S). In (8), for instance, a relation is expressed between the set of snakes and the set of dangerous things:⁴

⁴ Note that a count common noun denotes a set of entities even in the singular: a noun like *snake* does not denote a single entity of a certain type, but the set of all entities which, intuitively, can be described as 'snakes'. We are simplifying considerably for expository purposes; certain quantifiers involve a plural noun, but we skip over the interpretation of plurality for reasons of space.

- (8) {Every / some / no} snake is dangerous.

The determiner *every* expresses the subset relation: every entity that falls in the set of snakes also belongs in the set of dangerous things (though not necessarily vice versa); *some* expresses the relation of overlapping: the two sets have one or more element in common; finally, *no* expresses the relation of disjointness: the two sets have no element in common (i.e., nothing which belongs to the set of snakes also belongs to the set of dangerous things).

In intuitive terms, the common feature of weak noun phrases is that the relation they express only makes reference to the intersection between the restriction set and the set denoted by the nuclear scope, but it does not require any presupposed knowledge about (the cardinality of) the restriction set. To exemplify, the truth conditions of *Two snakes are dangerous* require that the set of snakes has two members in common with the set of dangerous things: this can be verified independently of the actual cardinality of the (relevant) set of snakes (Reinhart 1987). By contrast, the truth conditions of *Most snakes are dangerous* cannot be verified independently of the cardinality of the restriction set: the sentence is true if and only if the set of dangerous snakes covers a large proportion of the set of snakes. The strong determiners of (7) are *inherently presuppositional* in that they can only be used felicitously when the restriction set is presupposed to be non-empty (for an accessible discussion of presuppositionality, see Heim & Kratzer 1998: 162 ff.).

Since the quantificational relations expressed by weak determiners are essentially based on intersection, they are also known as intersective determiners. Empirically, weak determiners can be distinguished by the fact that they satisfy the following linguistic test (existentiality, Keenan 1987): a sentence of the form (9a) is true in exactly the same circumstances as (9b).⁵

- (9) a. Det R is/are S
 b. Det R which is/are S exist(s).

To illustrate, consider (10):

⁵ This test is based on the property of existentiality (Keenan 1987): informally, quantificational determiner is existential if and only if the relation expressed between the two sets R and S holds in exactly the same circumstances in which the same relation holds between the intersection of R and S and the set of entities that constitutes the universe of discourse.

- (10) a. No snakes are dangerous.
 b. No dangerous snakes exist.

(10a) and (10b) are intuitively equivalent— i.e. they are true in exactly the same circumstances, and false in exactly the same circumstances:⁶ hence, *no* qualifies as an existential determiner. The reader can easily verify that all the weak determiners exemplified in (6) (*a, three, some, many*) pass the test in (9).

By contrast, consider the application of the test to the determiner *every*:

- (11) a. Every snake is dangerous.
 b. Every dangerous snake exists.

Suppose that there are 80 snakes, 45 of which are dangerous. In this case, sentence (11a) is false but sentence (11b) is true. Therefore, the two sentences are not equivalent: the determiner *every* does not pass the test for existentiality. The same holds for the other strong determiners listed in (7).

The distinction between strong and weak noun phrases must be further refined because, as already noted by Milsark, the weak determiners listed in (6) also allow for a ‘proportional’ reading, in which the restriction set is already familiar in the discourse context. This reading emerges unambiguously when these determiners introduce a partitive *of*-PP embedding a definite description, as in (12).

- (12) Two of the snakes are dangerous.

Diesing (1992) traced the difference to the fact that in this use, the restriction set is presupposed to be non-empty, and therefore labeled these noun phrases *presuppositional indefinites*. She also pointed out that even weak NPs that are not overtly partitive (e.g. *two snakes*) allow for a presuppositional interpretation in certain contexts. Enç (1991) characterized this reading of weak NPs as specific, arguing that the restriction set is not simply presupposed to be non-empty, but it is familiar, i.e. already introduced in the previous discourse context. We agree that in most actual contexts of utterance the restriction set will be

⁶ More explicitly: recall that *no* expresses the relation of set disjointness; the truth conditions of (10a) require that the set of snakes and that of dangerous things have no elements in common. This holds precisely in those circumstances in which the universe of discourse has no element in common with the set of dangerous snakes, which means that the set of dangerous snakes is empty.