GENERIC INTERPRETATIONS AND

EXPLETIVE DETERMINER

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1. Two kinds of generic interpretation

1.1. Carlson (1977). Carlson (1977) analyzes English bare plurals as names of kinds. Generic interpretation arises when the predicate expresses a property of the kind denoted by the bare plural. So, for example, (1a) can express a property of the kind dinosaur; (1b) expresses a property of the kind beaver.2

(1) a. Dinosaurs became extinct 40,000 years ago
b. Beavers are intelligent

If generic bare plurals refer to kinds, just as proper names refer to individuals, we would expect them to be behave like referential expressions with respect to principle C. But, as we will see, this expectation is fulfilled only in contexts like (1a) but not in contexts like (1b).

1.2. Principle C effects. (2a) is ambiguous. The bare plural dinosaurs can have either existential interpretation or generic interpretation: John studied some dinosaurs or John studied the kind dinosaur.

(2) a. John studied dinosaurs
b. #John studied dinosaurs, whichj became extinct although dinosaursj had

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2 Carlson (1977) distinguishes kinds from objects. Objects are entities like John, John's car, etc. Kinds, on the other hand, are entities like the species dinosaur, beaver, etc. Carlson distinguishes further kind-level predicates from individual-level predicates. In contrast to individual-level predicates like intelligent, which can express properties of kinds (1b) and objects (ii), kind-level predicates like become extinct can only express properties of kinds (1a) but not of objects (i):

i) *John became extinct
ii) John is intelligent
been widespread

c. John studied dinosaurs, which, became extinct although they, had been widespread

Let's exclude for the moment the existential interpretation of the bare plural object. Both realizations of the bare plural *dinosaurs* in (2b) cannot be interpreted as generics at the same time. The reading "John studied the kind *dinosaur*, which became extinct although the kind *dinosaur* were widespread" is not available. An analysis that treats generic bare plurals as referential expressions excludes this interpretation of (2b) by Principle C of the Binding Theory: the second realization of the bare plural *dinosaurs* is not free, because it is coindexed with a c-commanding relative pronoun which is coindexed with the first realization of the bare plural. If, on the other hand, the second realization of *dinosaurs* is substituted by a pronoun, the relevant meaning is available (2c).

The same contrast shows up in (3). Nominal expressions that denote objects (like *John* in (3a)) cannot realize the internal argument of *exterminate*. The predicate *exterminate* s-selects kinds as its internal argument. (3b) shows that the external argument can denote a kind, too: the kind *black panthers* exterminated themselves. This reading is not available if the anaphor is substituted by the bare plural (3c). Under a referential analysis of generic bare plurals, the contrast between (3b) and (3c) is derived by Principle C.

(3)  

a. *Black panthers exterminated John*  

b. Black panthers, exterminated themselves,  

c. #Black panthers, exterminated black panthers,  

Crucially, the sentences in (4), which contain the predicates *adore* and *know*, contrast with the ones discussed above. Both sentences contain two realizations of the same bare plural in a c-command relation. All the bare plurals can have generic interpretation. (4a) for instance, can express the property of highlanders in general to adore the kind *highlander*; (4b) can express the property of women in general to be unaware of the fact that the kind *woman* is disadvantaged.

(4)  

a. Highlanders adore highlanders  

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3 The only possible interpretation for the bare plurals in (3c), which is irrelevant for our discussion, is the existential interpretation: some subspecies of the kind *black panther* exterminated some other subspecies of the kind *black panther*. Obviously also the bare plural in (2b) allows existential interpretation: there are subspecies of *dinosaurs* which became extinct despite the fact that the kind *dinosaur* had been widespread, and John studied some of them. We use the sign # to indicate that the generic interpretation is not available.
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b. Women do not know that women are disadvantaged

If generic bare plurals were always referential, the sentences in (4) should violate principle C, just as (2) and (3). But since they are grammatical, we have to conclude that at least one of each pair of bare plurals in (4a) and (4b) does not denote the kind *highlander* or *woman*, respectively. Therefore Carlson's analysis can only be maintained for the generic bare plurals in (2) and (3), but not for all the bare plurals in (4).

We assume that there are two different strategies for obtaining generic interpretation. First, nominal expressions can refer to kinds. The DP in (5a) carries a referential index corresponding to the kind *dinosaur*. Second, we will assume that generic bare plurals can be analyzed as quantified nominal expressions. In particular we will follow Diesing (1992), Kratzer (1988) and others, who assume that bare plurals are free variables that can be bound by adverbial quantifiers, such as *always*, *often*, *never*, etc., or by the phonetically unrealized generic quantifier GEN (5b).

(5) a. $[\text{DP dinosaurs}]_j$
    b. $\text{GEN}_x...[\text{DP highlanders}]_x...$

A question arises regarding the referential status of adverbially quantified DPs. One could suppose that the DP *highlanders* in (5b) refers to the kind *highlander* in spite of adverbial quantification. In this way Carlson's view, that English bare plurals are always names of kinds, could be maintained. Such a hypothesis would be similar to Carlson's analysis of existential bare plurals. In Carlson (1977) the existential reading of bare plurals is obtained from an operator $R$ and existential quantification over stages. The operator $R$ maps the kind denoted by the bare plural to stages, i.e. space-time slices of that kind. Although in Carlson's analysis the bare plural *black panthers* in (6a) denotes the kind *black panthers*, it can get existential interpretation in the logical representation (6b): there exists a stage of the kind black panthers (i.e. some black panthers) which killed Tarzan.

(6) a. Black panthers killed Tarzan
    b. E(s) [R(s,black panthers) and killed-Tarzan(s)]

Quantificational generic bare plurals could possibly be analyzed in an analogous way, maintaining Carlson's basic idea. We call this hypothesis the modified referential analysis of bare plurals. In the following sections we will discuss some arguments against this possibility. In particular, this hypothesis cannot be extended to other languages: German, Dutch and certain Italian bare plurals can have generic
interpretation, but crucially they cannot be construed as referential generic expressions.

1.3. German generic bare plurals. In German both bare plurals (7a) and definite plurals (7b) can have generic interpretation. Both the sentences in (7) can express the property of elephants having precious teeth.

(7) a. daß Elephanten wertvolle Zähne haben
    that elephants precious teeth have
b. daß die Elephanten wertvolle Zähne haben
    that the elephants precious teeth have

Although German bare plurals can have generic interpretation, they cannot denote kinds. The predicate aussterben in (8) is a kind-level predicate. In order to express that the species dinosaur is becoming extinct, the definite determiner is required (8b). The bare plural subject of (8a) is interpreted existentially: There are some subspecies

(8) a. #daß Dinosaurier dabei sind auszusterben
    that dinosaurs are becoming extinct
b. daß die Dinosaurier dabei sind auszusterben
    that the dinosaurs are becoming extinct

(7) and (8) differ with respect to two properties. First, the predicate in (7) is an individual-level predicate, while the one in (8) is a kind-level predicate. Second (7) is a context with non-specific time reference; whereas (8) is a context with specific time reference. Crucially, an adverbial quantifier cannot bind a nominal expression in contexts with specific time reference. The adverbial quantifier in (9a), a context of non-specific time reference, binds the bare plural subject. (9a) can be paraphrased with (9b). The bare plural subject in (9c), a context of specific time reference, cannot be interpreted as bound by often. (9d) is not a paraphrase of (9c).

(9) a. Texans are often tall
b. Many Texans are tall
c. Spies often crossed the border yesterday

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4 (9c) expresses that there were many events with spies crossing the border. This does not entail that many spies crossed the border.
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d. Many spies crossed the border yesterday

We can explain the contrast in (8) if we assume that German bare plurals cannot denote kinds (10). The quantificational generic interpretation of the bare plural in (8a) is excluded because of specific time reference; the referential generic interpretation is excluded because of (10); therefore only existential interpretation is available.

(10) English bare plurals can denote kinds; German ones cannot

Since (11) is a context of non-specific time reference, the bare plural in (11a) can receive generic interpretation by adverbial quantification. But still, the interpretation of (11a) differs from that of (11b). (11a) does not express a property of the kind *insect* - unlike (11b) - but rather a generic property of the subspecies of the kind *insect*.

(11) a. daß Insekten nicht aussterben können
       that insects not become-extinct can
       b. daß die Insekten nicht aussterben können
           that the insects not become-extinct can

A theory that does not distinguish at least two different kinds of generic interpretation cannot handle the interpretational contrast in (11).

In the following, we find further examples for the generalization (10). The subjects in (12) to (14), the internal argument in (15) and the prepositional complements in (16) to (18) denote a kind only when they are introduced by the definite determiner.

(12) a. #Diesen Bedingungen haben sich Dinosaurier nicht rechtzeitig angepaßt
to theses conditions have themselves dinosaurs not in time adapted
       b. Diesen Bedingungen haben sich die Dinosaurier nicht rechtzeitig angepaßt
to these conditions have themselves the dinosaurs not in time adapted

(13) a. #daß Äpfel dabei sind vom Markt zu verschwinden
       that apples are disappearing from the market
       b. daß die Äpfel dabei sind vom Markt zu verschwinden
that the apples are disappearing from the market

(14) a. daß schwarze Panther gestern noch weitverbreitet waren
that black panthers yesterday still widespread were
b. daß die schwarzen Panther gestern noch weitverbreitet waren
that the black panthers yesterday still widespread were

(15) a. daß der Virus Panther ausgerottet hat
that the virus panthers exterminated has
b. daß der Virus die Panther ausgerottet hat
that the virus the panthers exterminated has

(16) a. Die Aktionen waren gegen Ausländer gerichtet
the actions were against foreigners directed
b. Die Aktionen waren gegen die Ausländer gerichtet
the actions were against the foreigners directed

(17) a. Hans hat auf Studenten geschimpft
Hans has about students complained
b. Hans hat auf die Studenten geschimpft
Hans has about the students complained

(18) a. Gestern hat der Skinhead auf Asylanten eine Wut gehabt
Yesterday has the skinhead against refugees an anger had
b. Gestern hat der Skinhead auf die Asylanten eine Wut gehabt
Yesterday has the skinhead against the refugees an anger had

1.4. Appositive modification. It is commonly assumed that non-restrictive modifiers can modify only referential nominal expressions. If, as we assume, German generic bare plurals cannot be construed as referential but only as quantificational, we expect them to be incompatible with non-restrictive modification. On the other hand, we expect German definite generics, which can be referential, to be compatible with non-restrictive modifiers. This prediction is fulfilled. The relative clause in (19a), modifying a generic bare plural, can only be restrictive, while in (19b), modifying a definite plural, it can be appositive. Note that according to German orthography relative clauses have to be marked with commas, regardless of whether they are restrictive or not.

(19) a. Studenten, die links sind, konsultieren das Kapital
students who leftwing are consult das Kapital
b. Die Studenten, die links sind, konsultieren das Kapital
the students who leftwing are consult das Kapital

Relative clauses containing the adverb *ja* ('certainly') are unambiguously non-restrictive. They are compatible with referential expressions such as proper nouns (20a), but not with quantificational expressions (20b).

(20) a. Hans, der ja links ist, konsultiert das Kapital
    John who adv leftwing is consults das Kapital
b. *Jeder Student, der ja links ist, konsultiert das Kapital
    every Student who adv leftwing is consults das Kapital

They cannot modify German generic bare plurals (21a), but can modify definite generic plurals (21b).

(21) a. *Studenten, die ja links sind, konsultieren das Kapital
    students who adv leftwing are consult das Kapital
b. Die Studenten, die ja links sind, konsultieren das Kapital
    the students who adv leftwing are consult das Kapital

These facts support our claim that German generic bare plurals are not referential. English generic bare plurals, on the other hand, which can be referential, are compatible with restrictive (22a) and non-restrictive modification (22b).

(22) a. Students who are leftwing consult das Kapital
b. Students, who are leftwing, consult das Kapital

So far, we only have considered relative clauses. Adjectival modification reveals analogous contrasts in German. The adjective in (23a), modifying a generic bare plural, can not be non-restrictive; in (23b), on the other hand, modifying a definite generic plural, it can be non-restrictive.

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5 A relative pronoun can float a quantifier only if it heads an appositive relative clause. Therefore analogously to (21), (i) contrasts with (ii).

i) *Studenten, die alle links sind, konsultieren das Kapital
    students who all leftwing are consult das Kapital
ii) Die Studenten, die alle links sind, konsultieren das Kapital
    the students who all leftwing are consult das Kapital
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(23) a. Linke Studenten consultieren das Kapital
leftwing students consult das Kapital
b. Die linken Studenten consultieren das Kapital
the leftwing students consult das Kapital

Interestingly, the same pattern shows up in English. When modifying a bare plural (24a), the adjective leftwing can only be restrictive. In order to interpret the adjective as an appositive, the determiner is necessary (24b). The same holds for the examples in (25), a context with a kind level predicate.⁶

(24) a. Leftwing students consult das Kapital
b. The leftwing students consult das Kapital

(25) a. Poor dinosaurs became extinct
b. The poor dinosaurs became extinct

Unlike appositive relative clauses, appositive adjectival modifiers do not give any direct support for the claim in (10). We suppose that there is an independent explanation for why appositive adjectives that modify common nouns require the definite determiner. The crucial fact for our purpose is that appositive relative clauses do not require the definite determiner in English (cf 22b). The generic reading is excluded when the definite determiner is present (26).

(26) #The students, who are leftwing, consult das Kapital

1.5 Conclusions. The modified referential analysis of bare plurals, outlined at the end of section 1.2, cannot be maintained for German and Dutch. As shown above, in these languages, bare plurals cannot refer to kinds in contexts with kind-level predicates. Thus it seems unreasonable to analyze them as names of kinds when they are bound by an adverbial quantifier. Rather it seems reasonable to consider German and Dutch bare plurals as indefinite singular nominal expressions.⁷

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⁶ Being restrictive, the adjective poor in (25a) has only the meaning of economically disadvantaged.

⁷ An English bare plural, on the other hand, can be both definite (when it refers to a kind) and indefinite (when it is bound by an adverbial quantifier or by existential closure (cf section 2). This classification of bare plurals is consistent with the definition of definiteness proposed by Vergnaud and Zubizarreta (1990):

i) A nonpronominal nonpredicative nondeictic expression is definite iff two occurrences of that nominal expression within a sentence are necessarily coreferential

(Vergnaud & Zubizarreta 1990:54)
(27) German (and Dutch) bare plurals are indefinite

Heim (1982) argues that indefinite singular nominal expressions introduce free variables that can be bound by adverbial quantifiers. Exactly like German and Dutch bare plurals, they cannot refer to kinds (28a), although they can have generic interpretation (28b).8

(28)  a.  #A dinosaur became extinct
b.  A beaver is intelligent

Due to the quantificational character of their antecedents, the anaphors in (29a) and (29b) only have distributive interpretation, as in every highlander admires himself. Only in (29c), where its antecedent can be construed as referring to a kind, can the anaphor be interpreted as denoting the kind highlander.

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8 Following Wasow (1977), Vergnaud & Zubizarreta (1990,1992) assume that only referential expressions can license cataphoric relations:

i) A nominal expression that gives rise to the semantic intuition of "referentiality" licenses backward pronominalization, and reciprocally

(Vergnaud & Zubizarreta 1990:6)

But, although we treated them as quantificational expressions, German generic bare plurals (ii) and generic indefinite singulars (iii) can license cataphoric relations.

ii) Obwohl sie im allgemeinen viel Geld haben, werden Bauern für arm gehalten although they usually have much money, farmers are considered to be poor

iii) Although he usually has much money, a farmer is considered to be poor

Therefore, we conclude, the concept of referentiality used in (i) is distinct from the one used in this article. Note further, that, contrary to the generalization in (i) even non-referential definite descriptions in the scope of a quantificational element can license backward pronominalization. The definite nominal expression the car... in (iv) does not denote a unique car, rather its meaning depends on the assignment to the variable bound by everybody. Nevertheless the pronoun it is cataphoric to this nominal expression. The same holds for (v) and (vi). For speakers who can interpret definite nominal expressions like the tent (v) and the small car (vi) distributively the pronoun can be cataphoric to these nonreferential nominal expressions.

iv) Since it can go any distance, everybody who has two cars prefers to take the car be filled with gas the day before.

v) All participants of our tour into the grand canyon have a tent at home. But, stupidly, although it can not be easily pitched in the canyon, many want to carry also the tent with them.

vi) Since its consumption is usually low, nearly everybody who has two cars prefers to use the small car in town
2. Expletive determiners

Diesing (1992), modifying Heim's (1982) analysis of singular indefinite nominal expressions, argues for an analysis according to which the interpretation of bare plurals and indefinite nominal expressions in the singular is determined by their syntactic position. Existential interpretation occurs inside the VP, generic interpretation outside the VP. Bermann (1989) and Rullmann (1989) assume that adverbiale quantifiers such as always, often, never, etc., and the phonomically unrealized generic operator GEN are adjoined to IP in Logical Form. Existential interpretation is brought about via a phonomically unrealized existential quantifier, which is adjoined to the VP in Logical Form ("existential closure"). Generic and existential interpretation are in complementary distribution.

\[(30) \quad [\text{IP} \ Q_{\text{adv}} [\text{IP} \ \ldots \ E [\text{VP} \ \ldots \ ]}]\]

Relevant data for this hypothesis comes first of all from languages like German and Dutch. In these languages the complementary distribution of generic and existential indefinite nominal expressions shows up at Surface Structure. Certain adverbs like wohl, ja doch, etc. have been analyzed as being adjoined to VP (cf Webelhut 1989). Indefinites that precede such adverbs (31a) have only generic interpretation whereas indefinites that follow them, i.e. which stay inside the VP (31b), have only existential interpretation.

\[(31)\quad \text{a. daß Vögel ja doch [vp fliegen]} \]
\[\text{that birds adv. fly}\]
\[\text{b. daß ja doch [vp Vögel fliegen]} \]
\[\text{that adv. birds fly}\]

Romance bare plurals constitute a further argument for the hypothesis. The
distribution of Romance bare plurals is more restricted than bare plurals in Germanic languages: they only stay in postverbal position.

(32) a. Gianni ha visto marocchini dappertutto
   Gianni saw Moroccans everywhere
b. Sono arrivati marocchini in città
   arrived Moroccans in town
c. In questo ufficio telefonano sempre marocchini
   In this office call always Moroccans

The bare plural realizes the internal argument of a transitive verb in (32a), the internal argument of an ergative predicate in (32b), and an external argument in (33c). Romance bare plurals are excluded from preverbal argument positions such as the specifier of IP:

(33) a. *Marocchini sono arrivati in città
   Moroccans arrived in town
b. *Marocchini telefonano sempre in questo ufficio
   Moroccans call always in this office

The contrasts between (32) and (33) can be derived from the ECP (Contreras 1986, Delfitto & Schroten 1991, Longobardi 1991). If one assumes that the internal structure of bare plurals is the one in (34a), i.e. that they are introduced by an empty determiner, and that the bare plurals in (32) occupy positions that are governed by the

9 This contrast shows up only in argument positions (Longobardi 1991). Non-argument positions do not restrict the occurrence of Italian bare plurals:

i) Noccioline, ne ho comprate anch’io (Benincà 1980)
   hazelnuts of-them have(1.sg) bought too I

Note that the preverbal bare plurals in (33) become acceptable if they are stressed (ii,iii) or modified (cf section 3.1).

ii) MAROCCHINI sono arrivati in città
iii) MAROCCHINI telefonano sempre in questo ufficio

Also, coordinated bare plurals can occupy preverbal positions (iv). This fact, however, as pointed out by Longobardi (1991), seems to be a general characteristic of coordination, rather than a specific property of bare plurals, since bare nouns in the singular can also be coordinated without being introduced by any determiner (v).

iv) Morocchini e Senegalesi sono arrivati
   Moroccans and Senegalese arrived
v) Cani e gatti sono sempre nemici
   Dog and cat are always enemies
verb, the contrasts between (32) and (33) follow from the ECP: empty categories have to be lexically governed (by \(V^0\) or \(P^0\)), and so do empty \(D^0\)s (34b).\(^{10}\)

(34) a. \([\text{DP} \ e \ [\text{NP} \ marocchini \ ]]\)  
b. An empty head has to be lexically governed (Longobardi 1991:39)

The assumption in (30) correctly predicts the interpretational properties of Romance bare plurals. Since they are syntactically restricted to positions inside VP, they can only have existential interpretation.

In order to be interpreted by adverbial quantification, nominal expressions have to stay outside VP. According to (34b) the \(D^0\) position of such nominal expressions cannot be empty and has therefore to be filled either lexically at deep structure or by movement. Romance and German generic plurals (35) allow for the first option: \(D^0\) can be lexically filled by the definite plural determiner.

(35) a. I castori sono intelligenti  
the beavers are intelligent  
b. daß die Biber intelligent sind  
that the beavers intelligent are

Italian and German definite plurals can be ambiguous between a between a specific and a generic interpretation. The sentences in (35) can either express a property of a specific group of beavers or of beavers in general. Higginbothom (1985) and Di Sciullo & Williams (1987) assume that nouns can select for a non-thematic external argument \(R\), which can be satisfied either by predication (36a), by quantification (36b), or by a determiner (36c).

(36) a. John is a man
b. All men ate a cake
c. The man ate a cake

\(^{10}\) Following Chomsky (1986) we suppose that external arguments are base generated inside the VP. Data regarding extraction indicate that this position is governed by the verb (cf section 3.3). However, there is a difference between external arguments and internal arguments. A bare plural that realizes the external argument requires the presence of an element like an adverbial quantifier (such as \emph{sempre} in (32c)). Without this element (\(i\), the sentence becomes worse (Brugger 1990). This is the reason why the examples in (73-76) in section 3.3 contain adverbial quantifiers.

\(i\) ??In questo ufficio hanno telefonato Marocchini  
In this office called Moroccans
When the definite determiner satisfies the nominal argument $R$, the specific reading arises. Following Heim (1982), we want to assume that $R$ can be satisfied by adverbial quantification. Therefore a definite determiner which introduces a quantificational generic nominal expression functions semantically and syntactically as an expletive: semantically, because it does not bind $R$; syntactically because its presence is required by syntactic principles (e.g. by (34b)).

This view of generic definite plurals as adverbially quantified variables differs from the analysis proposed by Vergnaud & Zubizarreta (1990, 1991, 1992) and Longobardi (1991). Extending Carlson's (1977) analysis of English bare plurals to Romance, the authors analyze Romance generic definite plurals as referential expressions that refer to kinds. In the following we briefly discuss a view arguments in favor of the quantificational analysis. First, generic definite plurals can be bound by overt adverbial quantifiers. Kratzer (1988) assumes that individual-level predicates like tall differ from stage-level predicates like available in their argument structure: stage-level predicates select an implicit temporal argument which can be bound by an adverbial quantifier, as in (37a). Individual-level predicates, on the other hand, do not select such an argument. (37b) is excluded because the adverbial quantifier has no variable to bind.

(37) a. John is often available  
     b. *John is often tall

(38a) contrasts with (37b). We assume that in this case the adverbial quantifier has a variable to bind: the variable introduced by the subject. (38a) can be paraphrased with many beavers are tall. Further, since in contexts with specific time reference, the quantificational generic interpretation is not available (cf section 1.2), the definite plural in (38b) only has a specific interpretation.\footnote{As we will see in section 3.4, the definite plural in (38b) may have a kind-interpretation.}

(38) a. I castori sono spesso alti  
      the beavers are often tall  
     b. I castori sono entrati  
      the beavers came in

Second, if definite generic plurals were unambiguously referential, (39)
should be excluded by principle C, but it is not.  

(39) I montanari adorano i montanari  
the highlanders adore the highlanders  

English definite plurals contrast with Romance and German definite plurals in  
that they cannot have generic interpretation. (40) only expresses a property of a  
specific group of beavers.  

(40) The beavers are intelligent  

The concept of expletive determiner was originally introduced by Vergnaud &  
Zubizarreta (1990,1991) and Longobardi (1991). They assume a parametric variation  

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12 Bare plurals modified by stage-level predicates like wounded or invited can have generic interpretation.  

i) Wounded tigers can be dangerous  
ii) Invited students usually arrive late  

Following Carlson (1977) the bare plurals refer to the kinds wounded tiger and invited student. But interestingly, these  
nominal expressions cannot enter in kind-level contexts (the contrast between (i) and (iii) has been noticed by Vergnaud  
& Zubizarreta 1990):  

iii) *Wounded tigers became extinct  
iv) *Invited students are widespread  

One could suppose, in contrast to Carlson (1977), that there are no such kinds like wounded tiger and invited student  
in the domain of reference. Therefore (iii) and (iv) would be excluded because the bare plurals fail to refer, whereas  
the bare plurals in (i) and (ii) would receive their generic interpretation by adverbial quantification. Crucially, this  
assumption is incompatible with both Carlson’s original hypothesis that bare plurals are always names of kinds, and the  
modified referential analysis of bare plurals outlined at the end of section 1.2. Consequently, the corresponding  
Romance generic definite plurals (v,vii) cannot be analyzed as referring to a kind either. They can only be analyzed as  
bound by adverbial quantification.  

v) Le tigri ferite possono essere pericolose  
The tigers wounded can be dangerous  
vi) Gli studenti invitati in genere arrivano in ritardo  
The students invited in general arrive late  

13 Although definite plurals can be bound by adverbial quantifiers, they cannot be bound by existential closure. Only the  
bare plural in (i), but not the definite plural in (ii) has existential interpretation.  

i) Gianni ha mangiato mele  
John ate apples  
ii) Gianni ha mangiato le mele  
John ate the apples
between English, on the one hand, and Romance and German, on the other hand: the English plural determiner cannot function as an expletive, whereas the German and Romance ones can (41). Therefore the definite plural in (40) only has the specific reading.\footnote{In contrast to definite plurals, definite nominal expressions in the singular can have generic interpretation in English (i), just as in Romance (ii).}

\begin{equation}
\begin{array}{lccc}
\text{(41)} & \text{definite determiner} & \text{English} & \text{Romance} & \text{German} \\
& \text{can be expletive} & - & + & +
\end{array}
\end{equation}

The variation in (41) is attributed to the agreement properties of the determiner. A definite determiner is licensed only if it expresses semantic content or grammatical features (cf Longobardi 1991:55, Vergnaud & Zubizarreta 1992:6). Since the English determiner does not host grammatical features it cannot function as an expletive.\footnote{The question whether the English singular determiner in contexts like (i) should be analyzed as expletive or not is still a matter of discussion. Whereas Longobardi (1991) suggests that the definite singular determiner in (i) functions as an expletive, Vergnaud & Zubizarreta (1991) argue that the singular articles of the Romance languages, but not the English one, can be considered as expletives. I do not want to address the problem of definite generic singular nominal expression in this article. The parameter (41) therefore is meant to apply only to plurals and mass nouns. Mass nouns behave like plurals although they are morphologically singular (Longobardi 1991, Vergnaud & Zubizarreta 1990, 1991). In order to express a generic property, a mass noun has to be introduced by the determiner in the Romance languages (iv) but not in English (iii). In German the determiner is optional (v).}

\begin{equation}
\begin{array}{l}
\text{i) } \text{The beaver is intelligent} \\
\text{ii) Il castoro è intelligente}
\end{array}
\end{equation}

\begin{equation}
\begin{array}{l}
\text{i) Milk is white} \\
\text{ii) Il latte è bianco} \\
\text{iii) \text{(Die) Milch ist weiß}}
\end{array}
\end{equation}

\begin{equation}
\begin{array}{l}
\text{i}) \text{Milk is white} \\
\text{ii}) \text{Il latte è bianco} \\
\text{iii}) \text{(Die) Milch ist weiß}
\end{array}
\end{equation}

\begin{equation}
\begin{array}{l}
\text{i}) \text{Milk is white} \\
\text{ii}) \text{Il latte è bianco} \\
\text{iii}) \text{(Die) Milch ist weiß}
\end{array}
\end{equation}

In addition to the Romance languages, also German, Dutch, Greek and Frisian also support this observation. In a footnote Vergnaud & Zubizarreta (1990, fn:40) sustain that the definite determiner, when used as an expletive, cannot be omitted because it has to realize morphological features. This hypothesis is however falsified by e.g. German and Dutch generic bare plurals.
N° can raise to D°, if N° is not a common noun in the singular.¹⁶

(42)  D° can be filled in LF
      * Italian
      ok  English
      ok  German/Dutch

If the D° position of German, Dutch and English bare plurals can be filled in Logical Form, German, Dutch and English bare plurals can be interpreted in ungoverned positions by adverbial quantification ((43a),(31a) here repeated under (43b)).¹⁷

(43)  a.  Students are lazy
      b.  daß Vögel ja doch fliegen
           that birds adj   fly

The mechanism outlined above does not account for the necessity of the determiner in (44c). The English bare plural in (44a) is ambiguous between an existential and a generic interpretation, which is obtained by reference to a kind and not by adverbial quantification. In Italian these two readings are expressed in two

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¹⁶ Mass nouns can be interpreted by existential closure (i) and by adverbial quantification (ii,iii). We assume that the variable introduced by milk ranges over quantities of milk.

i)  John drank milk
ii)  Milk is white
iii) Milk is never green

The mass noun in (ii) and (iii) occupies an ungoverned position. Longobardi (1991) assumes that mass nouns, like plural nouns, can raise to D° in Logical Form. Delfitto & Schroten (1991) suppose that mass nouns have a phonetically unrealized inflectional morpheme that can exocorporate from the head and raise to D°. Evidence for this morpheme can be found in some Romance dialects.

¹⁷ Although the subjects of the small clauses in the following examples occupy governed positions, the Italian bare plural (i) is excluded. The indefinite singular (ii) and the English bare plural (iii) have generic interpretation.

i)  *Ritengo cavalli furbi
    (I) consider horses clever
ii)  Ritengo un cavallo furbo
    I consider a horse clever
iii) I consider firemen intelligent

We assume that the head of the small clause incorporates to the matrix verb at Surface Structure in German (cf. Prienzhorn 1990) and at Logical Form in English and Italian. In this way the embedded subjects in (i-iii) can adjoin/scramble to the matrix VP at LF where they are bound by the generic quantifier. Since they do not occupy governed positions at LF, (i) is excluded because the empty D° of the Italian bare plural violates the ECP at LF.
different ways: the existential interpretation with the bare plural (44b), the generic interpretation with the definite plural (44c).

(44) a. The virus exterminated \([\text{DP } e \ [\text{NP } \text{black panthers }]]\)
b. Il virus ha sterminato \([\text{DP } e \ [\text{NP } \text{pantere nere }]]\)
c. Il virus ha sterminato \([\text{DP } le \ [\text{NP } \text{pantere nere }]]\)

The obligatory presence of the definite determiner in (44c) does not follow from principles already discussed, because the internal argument stays in a governed position. We want to assume that a nominal expression that denotes a kind has to be introduced by the definite determiner, when the definite determiner can function as an expletive. In (45) this hypothesis is formulated in terms of Earliness.

(45) \(\text{DP denotes a kind } \rightarrow D^0 \text{ must be filled as early as possible}\)

The \(D^0\) of an English plural which denotes a kind cannot be filled prior to Logical Form, because the definite determiner does not function as an expletive. The \(D^0\) of an Italian plural can be filled at Deep Structure by the expletive determiner. Following (45), \(D^0\) has to be filled at Deep Structure. The definite determiner in (44c), therefore is obligatory. Crucially, (45) derives the generalization (10) that German bare plurals cannot denote kinds.\(^{18}\)

One could suppose that referential nominal expressions, and therefore nominal expressions that refer to kinds, in general stay outside VP at least at LF. Therefore \(D^0\) of the plurals in (44a) and (44c) would have to be filled because of the syntactic position of the whole nominal expression, and not because of (45). Note first, that under this hypothesis it remains unexplained why the \(D^0\) of German and Dutch plurals that denote kinds has to be filled lexically; however, explained why \(D^0\) has to be filled would be explained. Therefore, (45) cannot be completely derived from (34b). Second, the referential generic plurals in (46) seem to stay inside VP at

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\(^{18}\) German bare mass nouns can not denote kinds, too. Although German generic mass nouns can be introduced by the definite determiner (cf. fa.15), the bare mass noun in (i) has only existential interpretation: some quantities of milk disappeared from the market. In order to express that the whole kind milk disappeared, the definite determiner must be present (ii).

\(\text{i) #daß Milch vom Markt verschwunden ist}\\n\text{that milk from the market disappeared}\)

\(\text{ii) daß die Milch vom Markt verschwunden ist}\\n\text{that the milk from the market disappeared}\)
Surface Structure. They can follow VP adverbs (46a) and can be topicalized within the VP (46b). Since German does not allow scrambling at Logical Form (cf. Kratzer 1989), such a hypothesis seems to be problematic.

(46) a. daß der Virus wohl die schwarzen Panther ausgerottet hat that the virus adv. the black panthers exterminated has

b. [vpDie schwarzen Panther ausgerottet] hat der Virus noch nicht the black panthers exterminated has the virus not yet

3. Lowering

3.1. Italian modified bare plurals. English bare plurals in the specifier of IP can have existential interpretation (47). Kratzer (1988) and Diesing (1992) propose that English bare plurals that stay outside the VP at Surface Structure can be "lowered" or "mapped" to their base position inside the VP at Logical Form in order to receive existential interpretation. In this way "the effects of NP movement can be optionally undone" (Kratzer 1989:24).

(47) Students occupied the library

In order to explain the fact that German and Dutch bare plurals in positions outside the VP at Surface Structure, including the specifier of IP, cannot be interpreted existentially (cf. contrast in (31)), the authors assume that the process of lowering is not available in these languages.

(48) English German/Dutch
lowering + -

In other words, in German and Dutch, but not in English, the position a bare plural occupies at Surface Structure is relevant for its interpretation.

Having enriched the framework with the process of lowering, additional assumptions are necessary in order to exclude existential bare plurals in ungoverned positions in Italian. In order to exclude (33a), repeated under (49a), it must be assumed either that lowering is not available in Italian or that Italian empty D°s must be governed at Surface Structure (49b).

(49) a. *Marocchini sono arrivati in città

b. In Italian: no lowering and/or (34b) at SS
Otherwise the syntactic movement of the bare plural could be "undone" at LF, and inside the scope of existential closure the empty D° would be governed. Both the assumptions in (49b) are problematic. First, in addition to the specific interpretation, indefinite singular NPs in [SPEC,IP], like *uno studente in (50a), can have existential interpretation.

(50) a. Uno studente ha occupato la biblioteca
       A student occupied the library

If we assumed that Italian lacks lowering, the existential reading would be excluded. Longobardi (1991), on the other hand, proposes that (34b) applies at Surface Structure (51)

(51) Condition [(34b)] on empty D°s is checked as early as possible (cf Longobardi 1991:42)
       In Italian: Surface Structure

Interestingly, modified bare plurals (52b) in ungoverned positions contrast with unmodified ones (e.g 52a). Modified bare plurals can, in a particular narrative style, surface in preverbal position (cf Delfitto & Schrotten 1991, Longobardi 1991).

(52) a. *Politici hanno occupato la biblioteca
       politicians occupied the library

       b. Politici corrotti hanno occupato la biblioteca
       politicians corrupt occupied the library

As opposed to unmodified bare plurals (cf fn.10), modified bare plurals in ungoverned positions do not need to be specially stressed. Unmodified bare plurals are contrastive. Only the bare plurals, but no other element in (53), can be contrastively focused. In (54), on the other hand, an element other than the modified bare plural can be contrastively focused.

(53) a. *Marocchini sono ARRIVATI, non PARTITI
       Moroccans arrived not left

       b. MAROCCHINI sono arrivati, non AUSTRIACI
       Moroccans arrived not Austrians

(54) Politici corrotti hanno occupato la BIBLIOTECA, non il MAGGAZZINO
       corrupt politicians occupied the library not the supermarket
Gerhard Brugger

If one assumes that the D° position of modified bare plurals is filled by some element, the contrast between (52a) and (52b) follows from the ECP. Following (51) D° has to be filled prior to LF. Proper nouns modified by a restrictive modification have to be introduced by a determiner (55). As suggested by Longobardi, it might be the case that a restrictive modification which modifies a bare plural assigns features to D°, or that it licenses a lexical determiner which is phonetically unrealized, just as proper nouns that are modified by a restrictive modification have to be introduced by a lexical determiner (55).

(55) a. The John/#John I met yesterday
    b. Il Gianni/#Gianni che ho visto ieri

Crucially this invisible element in D° cannot be analyzed as an existential quantifier, because modified bare plurals allow generic interpretation (56). Following Heim (1982), we analyze determiners which can change their quantificational properties according to the context, like chameleons change their color, as determiners with no quantificational force at all. The modified bare plural in (56) receives generic interpretation by adverbia! quantification.19

(56) Cani con tre zampe non possono ballare
dogs with three legs not can dance

Although modified bare plurals allow generic interpretation, they cannot refer to a kind. Let’s assume that in earlier times there existed a species of dog with only three legs. (57a) cannot express the meaning that this species became extinct. The definite determiner is required (57b).

(57) a. #Cani con tre zampe si sono estinti
dogs with three legs became extinct
    b. I cani con tre zampe si sono estinti
the dogs with three legs became extinct

One could assume that the invisible determiner-like element that introduces modified bare plurals is an indefinite determiner. But notice that it has no corresponding overt lexical determiner. Neither does it correspond to the indefinite

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19 If the invisible determiner itself does not quantify, the existential interpretation of the bare plural in (52b) can only be obtained by existential closure. Therefore (52b) constitutes a further argument for the hypothesis that lowering is available in Italian.
plural determiner *dei/delle*, nor can it be analyzed as a plural form of the indefinite singular determiner *un/una*. Nominal expressions introduced by one of these determiners and modified bare plurals are similar in that they cannot denote kinds (58)

(58) a. #Delle balene si sono estinte
      of the whales became extinct
b. #Una balena si è estinta
    a whale became extinct

However they differ with respect to scope. Nominal expressions introduced by overt indefinite determiners can be interpreted as having wide scope over other operators. The indefinite singular in (59a) can have a specific interpretation. The modified bare plural in (59b) cannot.

(59) a. Ognuno ha visto un politico corrotto
      Everybody saw a politician corrupt
d. Ognuno ha visto politici corrotti
      Everybody saw politicians corrupt

The wide scope interpretation can be forced with elements like *ciascuno*. But this element is only compatible with nominal expressions that are introduced by an overt determiner (60a), not with modified bare plurals (60b).

(60) a. Delle ragazze hanno comprato due regali ciascuna
      of the girls have bought two gifts each
b. *Politici corrotti hanno bocciato due leggi ciascuno
    politicians corrupt blocked two laws each

One of the basic generalizations of Carlson (1977) is that bare plurals with existential interpretation always have narrowest scope. The modification does not change the scopal properties of a bare plural neither in Italian (59,60), nor in German or English (61):

(61) a. Everybody saw politicians
      b. Everybody saw corrupt politicians

Therefore it seems unreasonable to assign a completely different structural representation to modified bare plurals. Rather it seems reasonable to treat bare plurals and modified bare plurals alike. If English and German bare plurals can
occupy ungoverned positions because their $D^\circ$ position can be filled in Logical Form, it seems reasonable to assume the same for Italian modified bare plurals.

(62) a. $D^\circ$ of modified bare plurals is filled at LF
b. Condition (34b) on empty $D^\circ$s is checked at LF in Italian

Now the contrast in (57) follows from (45). Since the definite determiner in Italian can function as an expletive, the $D^\circ$ of a modified bare plural referring to a kind must be filled prior to LF.

We want suggest that existential closure can bind both the nominal expressions in its scope (the VP), or the traces ("copies" in (Chomsky 1992)) left in its scope after syntactic movement of the nominal expression. In this way, a nominal expression in an ungoverned position with existential interpretation does not literally "lower" or "map" to a governed position. Instead the trace/copy is existentially bound. The position at Surface Structure still remains visible to the ECP at Logical Form. Since D$^\circ$ must be filled at this level, unmodified Italian bare plurals are excluded form ungoverned positions, unlike modified Italian bare plurals and English and German bare plurals.

3.2. Exceptions of the indefiniteness restriction. Diesing assumes on the basis of German data discussed in (31) that German lacks lowering at Logical Form: the relevant position of interpretation of German indefinites is supposed to be the position at Surface Structure. In this section we are going to discuss evidence suggesting that this assumption is not correct. Dutch indefinite subjects are subject to the so called indefiniteness restriction (Reuland 1988, Rullmann 1989): indefinite subjects with existential interpretation have to be preceded by the particle *er (63)

(63) indefiniteness restriction
\[ *\text{er} \text{ indefinite subject with existential interpretation} \]

Generic indefinites, on the other hand, are incompatible with *er. The indefinite singular in (64a) has only existential interpretation. In absence of *er existential interpretation is excluded. The subject in (64b) can have generic interpretation.

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20 The question arises, as to what element fills the position $D^\circ$ of modified bare plurals at LF. We adopt Delfitto & Schröten's (1990) proposal that the modification licenses movement of $N^\circ$ to $D^\circ$ at LF, although we can not adopt their motivation.
Generic Interpretations and Expletive Determiner

(64) a. dat er een jongen werkt (Bennis, 1985)
    that ER a boy works
b. dat een jongen werkt
    that a boy works

The same contrasts show up with bare plurals. Because of specific time reference, only existential interpretation is available for the bare plural in (65a). The particle *er is obligatory. Indefinite subjects of individual level predicates like tall, intelligent, etc. cannot have existential interpretation (cf Kratzer 1988, Diesing 1992, or Brugger 1990 for an alternative explanation). The only interpretation available for the bare plural in (65b) is generic interpretation. Therefore *er is excluded.

(65) a. dat *(er) mensen dronken waren (Rullmann, 1989)
    that ER people drunk were
b. dat *(er) brandweermannen lui zijn
    that ER firemen lazy are

Rullmann (1989) assumes that *er and generic subjects occupy the same position: the specifier of IP. Existential subjects are assumed to stay inside VP. Adverbs like gisteren can only precede (66a), but not follow existential subjects (66b,c). The subjects in (66b,c) are only acceptable with exceptional stress.

(66) a. dat er gisteren studenten gearresteerd zijn
    that ER yesterday students arrested were
b. *?dat er studenten gisteren gearresteerd zijn
    that ER students yesterday arrested were
c. dat studenten gisteren gearresteerd zijn
    that students yesterday arrested were

Rullmann (1989) discusses several exceptions to the indefiniteness restriction. One of them is contexts with transitive predicates (cf also Bennis 1985). In contexts with a realized object, especially when it is definite, *er is excluded, even if the subject is an existential indefinite (67).

(67) a. *?dat er iemand Piet geholpen heeft
    that ER somebody Piet helped has
b. ??dat er iemand het huis bekeken heeft
    that ER somebody the house controlled has

The judgments of (67) are explained if we assume that the subjects are realized
in the specifier of IP conflicting with *er*, which is supposed to occupy the same position. This assumption is strengthened by adverb position. Existential subjects precede adverbs like *gisteren* in contexts with a definite object (68). In order for the subject to follow the adverb, it has to be specially stressed (Rullmann 1989). The same seems to occur in German (69).

(68) dat studenten gisteren de bibliotheek bezet hebben
that students yesterday the library occupied have

(Rullmann, 1989)

(69) daß Studenten gestern die Bibliothek besetzt haben
that students yesterday the library occupied have

The difference between (67), (68) and (69) with respect to (64), (65) and (66) seems to lie in the presence of the definite object. Let’s therefore assume (70).²¹

(70) If the internal argument is realized inside VP, the external argument has to be realized outside VP in S-structure

This assumption is obviously incompatible with Diesing’s proposal on lowering in German and Dutch. Standard tests for the position of nominal elements, which normally show that the existential subjects in (64) to (66) are VP-internal at Surface Structure, show otherwise when a definite Object is realized inside the VP. Since it cannot be taken as guaranteed that existential subjects always surface in their base position, we will assume, contrary to Diesing (1992), that German does have

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²¹ (70) does not describe the phenomenon exhaustively. In addition to definite objects, prepositional arguments and indefinite internal arguments - even though in a weaker way - can also have the same effect. The purpose of this section is only to isolate a precise context allowing existential subjects to stay outside the VP in German and Dutch. We do not consider (70) to be a universal generalization, but, as we will soon see, data that support (70) can also be found in some Romance languages.
lowering.²²

Data involving was für-split supports the generalization in (70). The wh-element was is extracted from the nominal expression was für Frauen in (71), and moved to the specifier of CP. The remainder, consisting of the trace of the wh-element and für Frauen, has to stay in a governed position at Surface Structure. The internal argument was für Frauen in (71a) stays inside the VP, was für-split is possible. In (71b) on the other hand, the internal argument, preceding the external argument, occupies a position outside the VP, was cannot be extracted.

(71) a. Was haben die Ameisen [t für Frauen] gebissen
       what have the ants (S) for women (O) bitten
       Which women did the ants bite

b. *Was haben [t für Frauen] die Ameisen gebissen
       what have for women (O) the ants (S) bitten

External arguments can undergo was für-split, too. In (72a) the internal argument precedes the external one, from which the wh-element has been extracted. Crucially, (72a) contrasts with (72b). This fact, noticed by Kratzer (1988), does not follow from the linear order of the constituents. Linear order does allow an analysis of the subject as occupying a governed position.

(72) a. Was haben die Mutter [t für Ameisen] gebissen
       what have the mother (O) for ants (S) bitten
       Which ants bit the mother

b. *Was haben [t für Ameisen] die Mutter gebissen
       What have for ants (S) the mother (O) bitten

(Kratzer 1988)

The contrast instead follows from (70). Because of the definite object inside the VP the subject is un governed. Notice that, if the object is realized outside the VP, as

²² Something has to be said now about general restrictions on when nominal expressions can be lowered at LF. Following Diesing’s (1992) basic intuition, lowering is excluded in German because of free word order. In contrast to English subjects, which receive nominative case in the specifier of IP, German and Dutch subjects can also be case marked in their base position (cf e.g. Den Besten 1983). Therefore German subjects need not raise to the specifier of IP in order to receive case. If we assume that an element can be lowered only if it is forced to leave the VP, the different behavior of indefinite subjects of monogargumental predicates and transitive predicates follows: subjects of transitive predicates have to raise to the specifier of IP because of (70) and can therefore be lowered into their base position. This assumption, however, which could easily be formulated in terms of Earliness, is not free of counterexamples, which we will not discuss in this article.
in (72a), the subject can stay inside the VP.\textsuperscript{23}

(70) is not to be understood as an exhaustive and complete description of the distribution of German and Dutch subjects (cf fn.22), nor as universally valid. But interestingly, data that may support (70) can also be found in some Romance languages. Consider for example the contrast between (73b) and (73c). In (73c) where the clitic-left dislocated object is realized outside the VP, the subject can be realized inside the VP, where the government requirement for empty D\'s can be fulfilled. In (73b), on the other hand, where the object stays inside VP, the bare plural subject - according to (70) cannot be realized inside the VP, giving rise to an ECP violation. The same holds for the contrast between (74a) and (74b).

\begin{itemize}
  \item[(73)]
    \begin{enumerate}
      \item a. Siempre ocupan los estudiantes la biblioteca
      \item b. ??Siempre ocupan estudiantes la biblioteca
      \item c. La biblioteca siempre la ocupan estudiantes
    \end{enumerate}

  \begin{itemize}
    \item [(74)]
      \begin{enumerate}
        \item a. Siempre leen los estudiantes este libro
        \item b. ??Siempre leen estudiantes este libro
      \end{enumerate}
  \end{itemize}

\textsuperscript{23} Contexts with $es$ insertion in German (the pleonastic element $es$ is inserted in the specifier of CP) may be interpreted as further evidence for (70). Cardinaletti (1990) argues that this element is not bare generated in the specifier of CP, but raised to this position from the specifier of IP. This hypothesis can account for the following contrast. A bare plural in a sentence introduced by $es$ can only have existential interpretation (i) but not generic interpretation (ii). Kratzer (1988) assumes that the subject of individual-level predicates like tall has to be realized in [SPEC,IP]. But, if $es$ is coindexed with a trace in [SPEC,IP], as proposed by Cardinaletti, this position is not available for the subject in (ii).

\begin{enumerate}
  \item i. Es sind Biber anwesend
      ES are beavers present
  \item ii. *Es sind Biber groß
      ES are beavers tall
\end{enumerate}

The existential subject in (i) does not conflict with the trace of $es$. But, crucially for (70), when a definite object is present, insertion of $es$ becomes ungrammatical.

\begin{itemize}
  \item [(c)]
    \begin{enumerate}
      \item *Es hat ein Mann das Haus gebaut
      \item ES has a \underline{man} the house built
    \end{enumerate}
\end{itemize}

An analogous argument can be construed with VP-topicalization. Although indefinite subjects can be topicalized within the VP, they cannot when the VP contains a definite object. We won't go into further detail.
c. Este libro siempre lo leen estudiantes
   this book always cl read students

Note, that Spanish, in contrast to Italian, has VSO (73a,74a). Along the lines of Zubizarreta (1992), one could assume that Spanish has an additional position for the (definite) subject, external to the VP but following the verb in Surface Structure. Italian then would lack this position. As predicted by (70) indefinite subjects can be realized inside VP only if no object is realized inside VP (75,76).

(75) a. *Occupano sempre Marocchini la biblioteca
        Occupy always Moroccans the library
b. La biblioteca, la occupano sempre Marocchini
   The library cl occupy always Moroccans

(76) a. *Leggono sempre studenti questo libro
        Read always students this book
b. Questo libro lo leggono sempre studenti
   This book cl read always students

3.3 A further kind-level context. If we analyze VP-external existential DPs as lowering, we expect elements intervening between the surface position and the base position to block lowering. Negation is one such element. Consider the contrast in (77). Although (77a) is acceptable (modified bare plurals can occupy ungoverned positions in Italian), (77b), with negation, is ungrammatical.

(77) a. Politici corrotti hanno occupato la biblioteca
b. *Politici corrotti non hanno occupato la biblioteca
   politicians corrupt not occupied the library

The same contrast shows up in German.24

(78) a. daß Studenten die Bibliothek besetzt haben
b. *daß Studenten die Bibliothek nicht besetzt haben
   that students the library not occupied have

If we assume (79), (77b) and (78b) become ungrammatical because the bare

24 (77b) and (78b) become acceptable if the bare plurals are exceptionally stressed.
plural subjects do not receive any interpretation.

(79) NEG blocks lowering

If negation blocks lowering, the bare plurals cannot be interpreted in the scope of existential closure (with narrow scope with respect to negation). Second, because of time-reference, adverbial quantification is not available (cf section 1.3); the bare plurals cannot be bound by GEN. Third, since bare plurals always have "narrowest scope" (Carlson 1977), they cannot be interpreted with wide scope with respect to negation. The variable introduced by the bare plurals in (77b) and (78b) fails to be bound, causing an ungrammatical logical representation. Note that indefinite singulars, which can either be specific or non-specific as in (80a), can only have the specific interpretation in contexts like (80b) where negation is present.\footnote{Indefinite singulars with existential interpretation cannot stay inside the scope of negation even at Surface Structure. The indefinite object in (ii) can not have existential interpretation unless it is contrastively focused.}

(80) a. Un politico corrotto ha occupato la biblioteca
    a politician corrupt occupied the library

   b. Un politico corrotto non ha occupato la biblioteca
    a politician corrupt not occupied the library

(81) contrasts with (77b) and (78b). The definite plurals are ambiguous. They can either denote a specific group of individuals or, crucially, refer to a kind. Under the latter interpretation (81a) expresses that the kind corrupt politician did not occupy the library, without referring to any specific group of corrupt politicians.

(81) a. I Politici corrotti non hanno occupato la biblioteca
    the politicians corrupt not occupied the library

   b. daß die Studenten die Bibliotheek nicht besetzt haben
    that the students the library not occupied have

\footnote{i) John ate an apple
   ii) John did not eat an apple

We assume that indefinite singulars, and bare plurals, cannot be lowered because they are incompatible with negation. In this article, we cannot discuss the implications and apparent counterexamples of this assumption (cf: Brugger & Poletto (in progress).}
Generic Interpretations and Expletive Determiner

The contrast between (77b) and (78b), on the one hand, and (81), on the other hand, constitutes further evidence for our claim that German and Romance bare plurals cannot refer to kinds. The only possible interpretation for the bare plurals in (77b) and (78b) would be reference to kind. But, since German and (modified) Romance bare plurals cannot be construed as referring to kinds, they are excluded from these contexts. The definite determiner is required, as shown in (81). English bare plurals, on the other hand, which can refer to kinds, are compatible with these contexts (82a). Note that since the definite determiner in English does not function as an expletive, the definite plural in (82b) unambiguously denotes a specific group of individuals.

(82) a. Students did not occupy the library
       b. The students did not occupy the library

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