0. Introduction: variation in syntax and interpretation

Principles-and-parameters theory is likely to be the main achievement of the linguistic sciences after and along with the historical-comparative method. It proposes a model of grammatical variation according to which differences in the morphosyntactic components of human languages are discrete, finite and more limited in number than they appear on the surface (i.e. several superficial differences turn out to cluster together at the appropriate level of analysis).

An important current question is whether a comparable state of affairs holds for semantic properties of natural languages, namely 1) whether differences really exist in the interpretive components, 2) whether they display the same parametric properties pointed out above, and 3) to which extent they can be connected to independently manifested syntactic differences. In simpler words, one may ask whether comparative semantics is possible, which form it may take, and how independent it can be of (comparative) syntax.

Crucial evidence should in principle be provided by possible cases of crosslinguistic syntactic homonymy, i.e. phrasal expressions with roughly the same surface structure across different languages, but mapping to clearly distinct logical representations.

In this article I will push forward a line of inquiry initially suggested in Longobardi (1994), arguing that Romance and English bare nouns differ in meaning, though not in shape, in a formal and grammatically predictable way, and improving descriptively on my own as well as on other recent accounts. The main proposal will be that Romance bare nouns are nothing but indefinites (quantificational variables, existentially or generically bound) in Heim’s sense, while English bare nouns are ambiguous between this quantificational interpretation of indefinites and a referential (i.e. kind-referring) one.
The analysis will then crucially exploit and empirically support the distinction between referential (or DP-level) and quantificational (or sentence-level) genericity, along lines first proposed by Gerstner and Krifka (1988) and related semantic literature.

This approach will lead to a better conceptual understanding of the fundamental typological connection between the DP-internal syntax of *proper names* and the semantics of *bare nouns* established in Longobardi (1994). The principles of mapping between syntax and, ultimately, semantics will then turn out to be rather abstract, in that they unify superficially quite distinct and non-trivially related phenomena (bare nouns and proper names), and to be subject to subtle and precise parametric variation, connected to a number of purely syntactic properties.

Such results allow for some preliminary answers to the questions raised above and may contribute to lay down the foundations for the empirical study of comparative semantics.

1. Bare nouns and proper names

In the Romance and in most of the Germanic languages, only three types of nouns may occur as arguments without being overtly introduced by a member of a class of mutually exclusive items: most usually a definite or indefinite article, a quantifier or a demonstrative; let us call such items *determiners* and the relevant arguments *determinerless* (meaning superficially determinerless) argument nominals. The three types are: 1) singular non-mass interpreted nouns 2) mass nouns 3) plurals:

(1) Ho incontrato Maria  
I met Maria

(2) a. Bevo sempre vino  
I always drink wine
b. Mangio patate  
I eat/am eating potatoes

The first type is essentially lexically defined (though in a non-trivial way; cf. Longobardi 1996) and is roughly coextensive with the traditional class of proper names; it is clearly distinct from the other two by a cluster of several syntactic and semantic properties, most of which will be discussed in depth later. Assuming Carlson’s (1977) ontological partition of *individual* entities into *objects* and *kinds*, type 1) nouns seem to lexically refer to objects, types 2) and 3) to kinds. The two latter types behave alike

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1 For the present purposes I will class among determiners also cardinals and certain quantity expressions, such as molto ‘much’, poco ‘little’, or abbastanza ‘enough’.
from essentially all relevant viewpoints, except for the mentioned mass/plural distinction, and I will refer to them under the collective term bare nouns (BNs). While determinerless proper names instantiate quite different surface structures in English and Romance, BNs can be shown to essentially display the same superficial syntax in the two language types (cf. Longobardi 1994 and sect. 4 below).

2. Romance bare nouns as indefinites

2.1 The interpretations of Italian bare nouns

Romance BNs, in the sense defined above, are subject to some interpretive and distributional constraints. Following Longobardi (1994), I will analyze the interpretation of BNs as independent of the peculiar constraints on distribution affecting them in Romance, which are rather widely discussed in the literature (cf. Contreras 1986, Delfitto and Schrötten 1992 among others) and can anyway be circumvented by adding some adjectival or relative modification to the BN.

All scholars seem to agree that in the modern Western European languages argument BNs may at most oscillate between an existential (henceforth symbolized as Ex) and a generic or quasi-universal reading (pretheoretically symbolized as Gen: notice that this notation is used throughout the paper as a simplistic cover label for different types of genericity, including both DP-internal and sentence-level genericity, and not as an operator symbol). In other words, definite specific readings appear to be generally excluded.4

The first important analysis of BNs, that of Carlson (1977), essentially only based on English, regarded BNs as a unitary phenomenon, i.e. as uniformly kind-referential expressions, the counterpart for kinds of what classical proper names are for objects; the two readings were considered combinatory variants in essentially complementary environments.

Kratzer (1988) and Diesing (1992) introduced the tools of crosslinguistic analysis into the study of BNs, comparing German to English. More importantly, their proposals deal with Germanic BNs as quantificational expressions, whose variable would be

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2 It is misleading to talk about the relevant properties of these items by referring to them just as bare plurals, as has often been the case in the literature since Carlson (1977), precisely because this obscures the fact that plurals and mass nouns behave alike in all the important respects (on this point also cf. Chierchia 1996). For the whole question see Delfitto (forthcoming).

3 For the hardly definable semantics of such readings cf. the various essays collected in and referred to in Carlson and Pelletier (1995).

4 Cf. Crisma (1997) for some relevant discussion.
unselectively bound by distinct abstract operators responsible for the existential or generic reading respectively. The distribution of such distinct readings according to patterns briefly sketched in section 4.1 below allows for some overlapping environments, in which BNs are predicted (apparently correctly) to provide ambiguities.

In neither analysis, anyway, are Romance BNs taken into consideration. As is often the case, the comparative analysis of Romance and Germanic turns out, however, to be highly revealing for the understanding of English BNs as well.

So far, essentially three approaches have been presented to the interpretation of Italian (by and large other Romance languages appear to be at best equally restrictive: cf. Dobrovie Sorin and Laca 1996 and Benedicto 1997 for some important recent approaches) BNs:

Casalegno (1987) suggested that, unlike English, Italian clearly allows only existentially quantified BNs: i.e. only Ex

Longobardi (1994) suggested that Italian BNs differ from the English ones in being mostly existential but capable of a generic interpretation in a limited set of environments (essentially only with I(ndividual)-, non-K(ind)-level predicates in Carlson’s (1977) sense): i.e. Ex, sometimes Gen

Chierchia (1996) proposed that Italian BNs, at the appropriate level of idealization (i.e. abstracting away from pragmatic and lexical factors and other poorly understood aspects), do not differ in interpretation from the English ones in any syntactically precise and relevant respect: i.e. Ex, Gen, essentially distributed as in English

In this work I will argue that the interpretation of Italian (more generally Romance) BNs and English BNs (and perhaps most Germanic BNs, mutatis mutandis) differs systematically and in a syntactically well definable way, thus vindicating the spirit, though not the letter, of Casalegno’s proposal, but also remedying the insufficiencies of Longobardi’s (1994) presentation and trying to account for the relevant evidence brought to light by Chierchia. This will lead me to elaborate and strengthen the conclusion, advocated in Longobardi (1994), that Romance and Germanic BNs are, in many cases, different semantic objects.

In so doing I will explore and sometimes take advantage of some notions and dimensions of semantic variation proposed in the literature for classifying the relevant environments, namely the distinctions between:

Stage-level vs. Individual-level predicates (from Carlson 1977)

Particular (or Episodic) vs. characterizing predication (cf. Carlson and Pelletier 1995, 2ff)

True kind-level vs. Cardinality predicates (cf. Carlson and Pelletier 1995, 95)
We will first examine the readings of BNs in subject position of three types of predicates in turn: S-level predicates, I-level predicates and K-level predicates.

Consider, then, the following Italian examples, involving a S(tage)-level predicate (the availability of the existential and generic reading is indicated for each sentence by \textit{Ex} and \textbf{Gen} respectively; furthermore all the judgements and the discussion throughout the paper abstract from the so-called subkind or ‘taxonomic’ reading, in Carlson and Pelletier’s 1995, 5ff sense):

(3) a. Elefanti di colore bianco hanno creato in passato grande curiosità \textit{Ex}
    White colored elephants raised a lot of curiosity in the past

b. Elefanti di colore bianco possono creare grande curiosità \textbf{Gen}/?\textit{Ex}
    White colored elephants may raise a lot of curiosity

c. Elefanti di colore bianco hanno creato sempre/spesso in passato grande curiosità \textbf{Gen}/?\textit{Ex}
    White colored elephants always/often raised a lot of curiosity in the past

These examples show that both existential and generic readings are possible for Italian BNs: however, when the verbal aspect determines an episodic reading for the predication, only Ex is normally available (cf. (3a)); Gen can obtain (and sometimes even be favored) only in two subcases: if an adverb of generic quantification occurs (cf.(3c)), presumably binding the subject à la Lewis (1975), or if the aspect of the sentence is of a gnomonic or characterizing nature as in ((3b)).

With I(ndividual)-level predicates, which are supposed to be always characterizing by their lexical meaning (they express generalizations about different stages of an individual) a subject BN can normally only be Gen:

(4) Cani da guardia di grosse dimensioni sono più efficienti \textbf{Gen}
    Watch dogs of large size are more efficient

Consider that in all such cases in which a Gen reading is possible for a BN, the characterizing flavor of the sentence does not depend on the BN itself but rather on the predicate and the verbal aspect, since any type of subject, including a proper name, would preserve the same effect. Thus in Carlson and Pelletier’s terms, the type of genericity at work here appears to be a sentence-level feature, not the consequence of any specifically kind-denoting property of the subject nominal, since proper names under normal conditions (in singular, determinerless occurrences) are likely to denote objects and not kinds.

The third class of relevant predicates is constituted by Carlson’s so called K-level predicates, namely those that cannot apply singularly to the objects which realize a kind but only collectively to the kind itself; here neither Gen nor Ex are possible readings of the relevant (i.e. non-taxonomic) type:

(5) a. *Elefanti di colore bianco sono estinti
White colored elephants have become extinct
b. *Elefanti di colore bianco diventano sempre più grandi man mano che si va a nord
(Ex)
White colored elephants grow larger as one drives North
c. *Elefanti di colore bianco sono così chiamati per la pigmentazione della loro pelle
White colored elephants are so-called because of the pigmentation of their skin

(sentence (5b) is irrelevantly grammatical with Ex under a pragmatically improbable non-K-level reading of the predicate)

Let us now attempt some semantic comparison. Notice that at least two differences arise with respect to English BNs, to which we will return later: generic BNs in Italian are impossible with classical K-level predicates (5a, b, c) and with episodic predicates as in (3a), while the Gen reading is acceptable for the English correspondents or even the glosses of the same examples.

The latter conclusion cannot be exclusively based on the gloss of (3a), though: for the English past tense is by itself ambiguous between an episodic and an habitual interpretation, the latter corresponding to that of Romance imperfect, a tense able to license the Gen reading of BNs. However, when the environment and the lexical choices force an unambiguous episodic reading, in English Gen continues to be available: for instance, the following episodic (6a, b = only existential in Romance, ambiguous in English) vs. characterizing (6c = ambiguous across the board) predications repropose and confirm the generalization arrived at.

(6) a. Elefanti di colore bianco passeranno il Giudizio Universale domani alle 5 Ex
White colored elephants will undergo the Final Judgement tomorrow at 5
b. Elefanti di colore bianco sono stati sterminati in massa da un cataclisma nel 1874 Ex
White colored elephants were mass-exterminated by a cataclysm in 1874
c. In questi casi, pompieri di grande esperienza intervengono in soccorso delle vittime dell’incidente Ex/Gen
In such cases, firemen of great experience run to the rescue of the victims of the accident

Here too, English contrasts with Italian insofar as the possibility of a Gen reading of (6a, b) is considered. Therefore, BNs in the two languages are likely to precisely

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5 The pragmatics of the Final judgment assumed here (though theologially improbable) for the purpose of making the Gen reading acceptable in English is that God judges all beings species after species and perhaps by collective (kind) responsibility.
instantiate a good case of crosslinguistic syntactic homonymy, in which one and the same (to the relevant extent) surface construction maps onto different semantic representations.

As a consequence of this recognition, then, it appears that Gen is possible with a good deal of Italian BNs, \textit{pace} Casalegno (1987) (cf. egs. (6b,c), (4), (6c)), but also that some systematically predictable contrast arises between English and Italian with respect to the distribution of this Gen reading, \textit{pace} Chierchia (1996) (cf. egs. (3a), (5a,b,c) and (6a,b). Furthermore, it appears that a Gen reading may arise also for subjects of certain aspectually well-definable S-level predicates (cf. egs. (3b,c), (6c), thus displaying a distribution less restricted than assumed in Longobardi (1994).\textsuperscript{6}

2.2 Bare nouns and overt indefinites

At this point it is important to make a crucial syntactic observation, which, to my knowledge, failed to be recorded in previous work on the subject: exactly the same interpretative conditions holding of Romance (but not English) bare nouns hold of most Romance (and English) overt indefinites, be they plurals, introduced by a cardinal determiner or by the so-called partitive article of Italian or French, or singulars introduced by an indefinite article.\textsuperscript{7}

Thus, (7)-(10) (plural indefinites) and (11)-(14) (singular indefinites) correspond to (3)-(6) above, with exactly the same distribution of the two readings:

\begin{enumerate}
\item a. Degli/Due/Molti elefanti di colore bianco hanno creato in passato grande curiosità
\hspace{1cm} \textit{Ex}
\item b. Degli/Due/Molti elefanti di colore bianco possono creare grande curiosità
\hspace{1cm} \textit{Gen/Ex}
\item c. Degli/Due/Molti elefanti di colore bianco hanno creato sempre/spesso in passato grande curiosità
\hspace{1cm} \textit{Gen/Ex}
\end{enumerate}

\textsuperscript{6} BNs of the form ‘N1 \textit{di} Demonstrative N2’, where the second N belongs to a set of classificatory items meaning ‘kind’, ‘size’ etc. must be kept out of the picture here. They systematically behave not like generic BNs, but rather like definite generic DPs of the sort discussed in section 3.1 and seem anyway to induce one of those taxonomic readings from which we are abstracting away from in this article. As a fundamental reference for an analysis of these constructions cf. Zamparelli (1995).

\textsuperscript{7} On the partitive article cf. Delfitto (1993), Chierchia (1997); for its origin in Romance see Foulet (1928).
Part. art. /Two/Many white colored elephants always/often raised a lot of curiosity in the past

(8) a. Un elefante di colore bianco ha creato in passato grande curiosità
A white colored elephant raised a lot of curiosity in the past

b. Un elefante di colore bianco può creare grande curiosità
A white colored elephant may raise a lot of curiosity

c. Un elefante di colore bianco ha creato sempre/spesso in passato grande curiosità
A white colored elephant always/often raised a lot of curiosity in the past

(9) Dei/Due cani da guardia di grosse dimensioni sono più efficienti
Two watch dogs of large size are more efficient

(10) Un cane da guardia di grosse dimensioni è più efficiente
A watch dog of large size is more efficient

(11) a. *Degli/Due elefanti di colore bianco sono estinti
Two white colored elephants have become extinct

b. *Degli/Due elefanti di colore bianco diventano sempre più grandi man mano che si va a nord
Two white colored elephants grow larger as one drives North

(Ex)

c. *Degli/Due elefanti di colore bianco sono così chiamati per il loro colore
Two white colored elephants are so-called because of their color

(12) a. *Un elefante di colore bianco è estinto
A white colored elephant has become extinct

b. *Un elefante di colore bianco diventa sempre più grande man mano che si va a nord
A white colored elephant grows larger as one drives North

(Ex)

c. *Un elefante di colore bianco è così chiamato per il suo colore
A white colored elephant is so-called because of his color

(13) a. Degli/Due/Molti elefanti di colore bianco passeranno il Giudizio Universale domani alle 5
Two/Many white colored elephants will undergo the Final Judgement tomorrow at 5

Ex

b. Degli/Migliaia di/Molti elefanti di colore bianco sono stati sterminati in massa da un cataclisma nel 1874
Ex
Part. art. /Thousands of/Many white colored elephants were mass-extirminated by a cataclysm in 1874.

c. In questi casi, dei/due pompieri di grande esperienza intervengono in soccorso delle vittime dell’incidente

Ex/Gen

In such cases, Part. art. /two firemen of great experience run to the rescue of the victims of the accident

(14) a. Un elefante di colore bianco passerà il Giudizio Universale domani alle 5 Ex

A white colored elephant will undergo the Final Judgement tomorrow at 5

b. Un branco di elefanti di colore bianco è stato sterminato in massa da un cataclisma nel 1874 Ex

A herd of white colored elephants was mass-extirminated by a cataclysm in 1874

c. In questi casi, un pompier de grande esperienza interviene in soccorso delle vittime dell’incidente

Ex/Gen

In such cases, a fireman of great experience runs to the rescue of the victims of the accident

These paradigms, then, allow us to state the following generalization:

(15) Romance argument bare nouns have the same interpretations as (both Romance and English) overt indefinites occurring in the same environments

2.3 Semantics and pragmatics

Let me now address a detail of some importance: in the examples involving cardinal determiners the Gen reading appears roughly to designate every group of at least \( n \) (\( n = \) two/many etc.) 'normal' objects of the relevant kind, say white colored elephants. In other words, the cardinal appears to stay in the restrictor of a generic operator. On the analogy, the generic reading displayed by examples with the partitive determiner or the singular indefinite article might perhaps designate every set of an indefinite number of normal objects or of at least one normal object of the relevant kind, respectively. If this were the case, the acceptability conditions for the generic interpretation of all indefinites should involve pragmatic conditions on precisely such a group or collective reading. For example, when a predicate necessarily forcing a non-collective reading of its subject is used, then the pattern becomes minimally different, since plural cardinal quantifiers (the fourth subcase) seem to refuse the generic reading, only retaining the existential one:

(16) a. Tennisti di grande classe vincono (sempre / spesso / di solito / raramente / difficilmente) il singolare del torneo di Wimbledon
Tennismen of great class (always/often/usually/rarely/hardly) win the singles at Wimbledon

b. Un tennista di grande classe vince (sempre / spesso / di solito / raramente / difficilmente) il singolare del torneo di Wimbledon
A tennisman of great class (always/often/usually/rarely/hardly) wins the singles at Wimbledon

c. Dei tennisti di grande classe vincono (sempre / spesso / di solito / raramente / difficilmente) il singolare del torneo di Wimbledon
Partit. art. tennismen of great class (always/often/usually/rarely/hardly) win the singles at Wimbledon

d. Molti/Tre tennisti di grande classe vincono (sempre / spesso / di solito / raramente / difficilmente) il singolare del torneo di Wimbledon
Many/Three tennismen of great class (always/often/usually/rarely/hardly) win the singles at Wimbledon

In fact, the alternation between the two readings is easily obtained in (16a-c), by prosodically focusing either the subject (existential reading) or the verb (generic reading). But in (16d) the cardinal determiners seem not to stay in the restrictor, but to compete with the generic operators (adverbs of quantification or just habitual aspect) for selection of the same individual variable and the relevant interpretation fails, probably as a case of vacuous quantification. With potentially collective predicates the generic reading of cardinal plurals is restored:

(17) Due attaccanti di grande classe portano (sempre / spesso / di solito / raramente / difficilmente) la propria squadra di calcio alla vittoria
Two forwards of great class (always/often/usually/rarely/hardly) lead their football team to victory

But notice that another way to circumvent the impossibility of the generic reading in cases like (16d) (i.e. retaining a non-collective predicate) amounts to explicitly making the existence of a group and the specification of its cardinality pragmatically relevant:

(18) Tre grandi tennisti della stessa famiglia / dello stesso paese vincono (sempre / spesso / di solito / raramente / difficilmente) il singolare del torneo di Wimbledon
Three great tennismen of the same family/village (always/often/usually/rarely/hardly) win the singles at Wimbledon

Thus, the expression of cardinality in the restrictor apparently violates pragmatic (conversational?) conditions, unless
1) the predicate is collective
or

2) the relevance of the cardinality is specified in the environment

All of this suggests that pragmatic factors filter out interpretations which are per se grammatically correct and should in principle provide uniform paradigms: such interpretations can be forced to become acceptable once the right pragmatics is made salient. This proposal agrees with Carlson and Pelletier (1995, 35) and will find extensive application directly in sect. 2.4.

2.4 Cardinality predicates

Recently, Chierchia (1996) has made the important observation that what looks like a generic reading of BNs obtains in Italian also in subject position of certain predicates which might appear to be K-level in the sense defined above, since they do not seem to naturally apply to objects but rather to kinds. If this were true, it would raise a problem for the picture proposed so far, in which K-level predicates should be able to take generic subjects in English, but not in Romance. The best acceptable of the relevant examples seem to be of the following type, mostly adapted from, or modelled after, Chierchia (1996):

(19) a. Ragazzе in minigonna sono rare/introvabili, in questo paese
   Girls in miniskirt are rare/cannot be found in this village
b. Dopo il disastro nucleare, purtroppo, cani con difetti congeniti sono diffusi, qui
   After the nuclear disaster, unfortunately, dogs with genetic flaws are widespread, here
c. ?Lezioni corrotte diventano più frequenti man mano che ci allontaniamo dall’archetipo
   Corrupted variants become more frequent as far as we move away from the archetype
d. ?In questa zona, politici disonesti abbondano/scarseggiano
   In this area, dishonest politicians abound/are scarce

With such predicates, the existential reading (if, as usual, we exclude taxonomic or subkind interpretations) often seems anyway inappropriate, so, when grammatical, most of these sentences seem to only have a sort of generic reading and the judgements

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8 Examples with coordinate nouns as subjects are not relevant to the point: coordinate determinerless nouns have been independently shown (cf. Longobardi 1994) to be virtually completely free from the syntactic and semantic constraints affecting the non-coordinate ones.
will anyhow be referred to such interpretation. What I want to argue is that even in this case the fundamental generalization (15) is respected and thus such predicates cannot be classed with proper K-level predicates like those of (5) and (11)-(12).

It is then necessary to show that, once again, the contrast between (19) and (5) does not just concern BNs, but overt indefinites as well. Let us start with the partitive article, which is semantically the closest analogue to BNs:

(20)  a. Delle ragazze in minigonna sono rare/introvabili, in questo paese
     Part. art. girls in miniskirt are rare/cannot be found in this village
     b. Dopo il disastro nucleare, purtroppo, dei cani con difetti congeniti sono diffusi, qui
        After the nuclear disaster, unfortunately, Part. art. dogs with genetic flaws are widespread, here
     c. ?Delle lezioni corrotte diventano più frequenti man mano che ci allontaniamo dall’archetipo
        Part. art. corrupted variants become more frequent as far as we move away from the archetype
     d. ?In questa zona, dei politici disonesti abbondano/scarseggiano
        In this area, partit. art. dishonest politicians abound/are scarce
the sentences of (20) seem acceptable to me, at least as much as those of (19) are.
At first sight, the same is not true of cardinal indefinites:

(21)  a. ??Tre ragazze in minigonna sono rare/introvabili, in questo paese
     Three girls in miniskirt are rare/cannot be found in this village
     b. *Dopo il disastro nucleare, purtroppo, molti/tre cani con difetti congeniti sono diffusi, qui
        After the nuclear disaster, unfortunately, many/three dogs with genetic flaws are widespread, here
     c. *Molte/Tre lezioni corrotte diventano più frequenti man mano che ci allontaniamo dall’archetipo
        Many/three corrupted variants become more frequent as far as we move away from the archetype
     d. *In questa zona, molti/tre politici disonesti abbondano/scarseggiano
        In this area, many/three dishonest politicians abound/are scarce

However, it is already worth noticing that (21a) is more acceptable than the others, if one can force a ‘three...together’ interpretation, i.e. with the collective reading of the sort first discussed in the previous section. Now, consider the correspondents
to each of the other sentences of (19) once the pragmatic context for such a collective reading is made explicit:

(22) a. Dopo il disastro nucleare, purtroppo, tre cani gemelli con difetti congeniti sono diffusi, qui
    After the nuclear disaster, unfortunately, three twin dogs with genetic flaws are widespread, here
b. Due lezioni corrotte nella stessa riga diventano più frequenti man mano che ci allontaniamo dall’archetipo
    Two corrupted variants in the same line become more frequent as far as we move away from the archetype
c. In questo paese, due politici astuti e con idee compatibili abbondano/scarseggiano
    In this country, two clever politicians with compatible views abound/are scarce
    (in a context where we are looking for a ticket of presidential/vice-presidential candidates)

Therefore, even in this respect, such predicates seem to tolerate an indefinite subject no less than many non-K-level predicates of the previous section, once the appropriate pragmatics is provided.

Let me now consider the thornier case of singular indefinites. Here three subcases must be carefully distinguished. The immediate correspondent of (19a) is already grammatical, the other cases are not:

(23) a. Una ragazza in minigonna è rara/introvabile, in questo paese
    A girl in miniskirt is rare/cannot be found in this village
b. Dopo il disastro nucleare, purtroppo, un cane con difetti congeniti è diffuso, qui
    After the nuclear disaster, unfortunately, a dog with genetic flaws is widespread, here
c. Una lezione corrotta diventa più frequente man mano che ci allontaniamo dall’archetipo
    A corrupted variant becomes more frequent as far as we move away from the archetype
d. In questa zona, un politico disonesto abbona/scarseggia
    In this area, a dishonest politician abounds/is scarce

However, the pattern is even less uniform. The b. and c. subcases become also acceptable if the now familiar pragmatics for the collective reading is suggested, so that the determiner may be understood as expressing the cardinality of a group. An
exact cardinality environment for the singular indefinite article implies the relevance of uniqueness in the given situation; once the latter condition is warranted, grammatical examples can be naturally provided:

(24) a. Dopo il disastro nucleare, purtroppo, almeno un cane per nidiata con difetti congeniti è diffuso, qui
   After the nuclear disaster, unfortunately, at least one dog per stock with genetic flaws is widespread, here
b. Un’unica lezione corrotta per ogni pagina manoscritta diventa sempre più frequente man mano che la recensio si avvicina all’archetipo
   A single corrupted variant per handwritten page becomes more and more frequent as the recensio gets closer to the archetype

Instead, no singular of any sort can be rescued with the lexical choices of (23d), namely abbondare and scarseggiare:

(25) a. Dopo la rivoluzione, un unico figlio maschio è raro/ diffuso/ è diventato sempre più frequente/ *scarseggia/ *abbonda, nelle campagne cinesi
   After the revolution, an only male child is rare/widespread/ has become more and more frequent/is scarce/abounds, in the Chinese countryside

Setting aside this latter problem for a while, let me observe that the predicate of (23a) and those of (23b and c) differ in a sense analogous to monotone decreasing and increasing quantifiers, respectively. That precisely this factor may be the relevant one for their contrast in the paradigm (23) is strongly suggested by the improved acceptability of ‘decreasing’ versions of (23b and c):

(26) a. Dopo il disastro nucleare, purtroppo, un cane senza difetti congeniti è introvabile, qui
   After the nuclear disaster, unfortunately, a dog without genetic flaws is hard to find, here
c. Una lezione corrotta diventa sempre più rara man mano che ci allontaniamo dall’archetipo
   A corrupted variant becomes rarer as far as we move away from the archetype

It is plausible then that the pragmatics licensing the collective reading may be easily implicitly understood in decreasing environments, while it must be overtly suggested in the increasing ones. Decreasing predicates would roughly act like negative polarity licensers of ‘a single N’ expressions. The plausibility of this solution becomes more apparent by paraphrasing the sentences with the collective reading made explicit in the two cases:
Bare nouns, proper names and the syntax-semantics mapping

(27) a. One can hardly find groups of normal dogs (even) of cardinality one, here
b. One can easily find groups of abnormal dogs of cardinality one, here

The second utterance, to be pragmatically normal, seems to require the specification of a context where coming in singletons is relevant of abnormal dogs (the ‘one per stock’ case, for instance), the first one sounds as a (baroque) way of stating “it is hard to find even a single normal dog”.

Thus, on the whole, BNs with such predicates are available, with what looks like a generic flavor of the sentence, by and large to the same extent as the usual overt indefinites are. The one clear exception to this conclusion is provided by the fact that singulars, and only singulars, remain unacceptable with *abbondare/scareggia re (cf. (25)), to which we will return directly.

It seems, then, that out of merely distributional criteria we must recognize another class of predicates, which, empirically, cannot be assimilated to classical K-level predicates (and which must be internally at least bipartite). In fact, compare these examples to typical K-level predicates, as in (28) here or in (11)-(12) above:

(28) a. *Un lupo siberiano diventa più grande man mano che si va a nord
   A Siberian wolf grows bigger as one drives North
b. *Dei lupi siberiani diventano più grandi man mano che si va a nord
   Partit. art. Siberian wolves grow bigger as one drives North
c. *Molti/Tre lupi siberiani diventano più grandi man mano che si va a nord
   Many/Three Siberian wolves grow bigger as one drives North

Let me observe that this new class can also be semantically characterized, and has been independently identified in Carlson and Pelletier (1995, 95): it consists of verbal and adjectival predicates whose lexical meaning quantifies the amount (and states the distribution) of the entities designated by the subject. An immediate similarity appears with the case of Lewis’ (1975) adverbs, though in this case the quantificational force resides not in an adverb (like rarely, hardly, frequently, often,...), but in the (often corresponding) lexical verb or adjective. Following Carlson and Pelletier (1995), I will then refer to members of this class as cardinality predicates. Consider, as we have seen, that the class naturally divides into two subtypes:

(29) a. Predicates like: ‘rare, hard to find, missing, scarce...’
   b. Predicates like: ‘widespread, frequent, abound...’

on the obvious analogy with corresponding quantifiers, I called them ‘decreasing’ and ‘increasing’ cardinality predicates.

Thus, all indefinites, including bare nouns, may occur as generic subjects of decreasing cardinality predicates, while with increasing cardinality predicates the possibility is limited to those without any specification of cardinality (bare nouns and parti-
tives), unless such numerical specification of the size of the group is pragmatically relevant, essentially as was the case with non-collective predicates of section 2.3.

Now let me consider the last problem: among cardinality predicates we have seen that the ones refusing a singular indefinite subject are *abbondare* and its exact antonym *scarseggiare*, as in (25) above and in the following:

(30) *In questo paese una ragazza in minigonna abbonda/scarseggia*

In this village a girl in miniskirt abounds/is scarce

but notice that these verbs independently require as a selectional property that their subject be a mass or plural noun, as is shown by testing them with a singular count kind-denoting definite:

(31) a. *Il serpente a sonagli abbona/noi in questa stagione*

The rattlesnake abounds/is scarce in this season

b. I serpenti a sonagli abbondano/scarseggiano in questa stagione

The rattlesnakes abound/are scarce in this season

c. La fauna alpina abbonda/scarseggia in questa stagione

The alpine fauna abounds/is scarce in this season

Thus, the impossibility of (30) and the like is likely to be simply reducible to the selectional properties of *scarseggiare*/*abbondare*. The same reasoning cannot be applied to the other cardinality predicates such as *essere diffuso*, *diventare più frequente* etc.:

(32) a. *Il serpente a sonagli è raro/introvabile/diffuso in questa area*

The rattlesnake is rare/hard to find/widespread in this area

b. Il serpente a sonagli diventa sempre più frequente man mano che ci si adentra nel deserto

The rattlesnake becomes more and more frequent as one proceeds inside the desert

Correctly, such predicates allow more easily for the generic reading of singular indefinite subjects.

A careful analysis, involving syntax, semantics and pragmatics, is thus likely to overcome the impression of unpredictability and lexical idiosyncrasy of the behavior of BNs in such a domain. Indeed, on these grounds the paradigms of this section can be virtually completely regularized and generalization (15) maintained and further confirmed.
2.5 The distribution of the two readings revisited

Thus, as a result of the previous survey, the environments relevant for the assignment of each of the two readings to Romance BNs (and to English and Romance overt indefinites) proved to essentially amount to the following:

for Ex:

\[(33)\]
\[\begin{array}{l}
\text{a. all episodic predicates} \\
\text{b. characterizing S-level predicates}
\end{array}\]

for Gen (now even more a pretheoretical label for a heterogeneous set of phenomena):

\[(34)\]
\[\begin{array}{l}
\text{characterizing (i.e. non-episodic, gnomic) non-K-level predicates, i.e.:} \\
\text{a. I-level (i.e. lexically characterizing) predicates} \\
\text{b. S-level predicates with habitual aspect} \\
\text{c. predicates in the scope of certain adverbs of generalizing quantification} \\
\text{d. cardinality predicates (abound, be rare, etc.)}
\end{array}\]

With respect to the S-/I-level distinction, the distribution of the two readings can therefore be represented as follows:

\[(35)\] (first approximation)

\[\begin{array}{c}
\text{episodic} \\
\text{S-level} \\
\text{characterizing (habitual)} \\
\text{I-level} \\
\text{lexically characterizing}
\end{array}\]

\[\begin{array}{c}
\text{Ex} \\
\text{Gen}
\end{array}\]

To sum up, the readings of Romance BN subjects seem to be roughly distributed as follows:

\[(36)\]
\[\begin{array}{l}
\text{a. Ex with S-level predicates only (as in English, cf. Kratzer 1988, Diesing 1992)} \\
\text{b. Gen with characterizing predicates only (thus more restricted than in English)}^{10}
\end{array}\]

\[9\] Recall that predicates used in episodic sentences appear to be necessarily S-level since I-level predicates were noticed to always give rise to characterizing sentences.

\[10\] Hence, the existence of non-complementarity is correctly predicted (in agreement with Diesing 1992), namely with characterizing S-level predicates; cf. again (6c) above.
Notice, already, that the notion ‘I-level’ does not play any direct role in the description of the assignment rules for the two readings. However, the situation is even more complicated and more revealing also in our comparative perspective.

In fact, among the four subcases of (34), (34a) is isolated with respect to the other three, in that the latter environments all contain an intuitively quantificational element (habitual aspect, appropriate adverb, lexical meaning of the predicate) which might be responsible for the generic reading and which is, instead, absent from I-level predicates as such. This fact could already suggest that (34a) is perhaps spurious in (34) and that I-level predicates do not belong by their own nature in the class of licensors for Gen.

Some empirical evidence directly bears on this point: at a closer look I-level predicates appear at least split in two the generic reading (all judgements through (42) are given only with respect to the latter, i.e. abstracting away from the sporadic possibilities of Ex readings, to avoid irrelevant complications):

(37) a. Stati di grandi dimensioni sono pericolosi
   States of large size are dangerous
b. ??Stati di grandi dimensioni sono prosperi
   States of large size are prosperous
(38) a. Cani da guardia di grosse dimensioni sono più efficienti/aggressivi
   Watch dogs of large size are more efficient/aggressive
b. ??Cani da guardia di grosse dimensioni sono più pelosi/neri
   Watch dogs of large size are more hairy/black
(39) a. Uccelli di zone paludose sono ghiotti di insetti
   Birds from marshy areas are crazy about insects
b. ??Uccelli di zone paludose sono scuri/intelligenti
   Birds from marshy areas are dark/intelligent

Let us call the two subclasses A and B respectively. Again, two facts are remarkable: 1) in English the correspondents of the (b) examples are fully acceptable, and 2) Romance and English overt indefinites replicate the Romance pattern of BNs, being more fully acceptable as generics with class A:

(40) a. Uno stato di grandi dimensioni è pericoloso
   A state of large size is dangerous

11 Actually, Higginbotham and Ramchand (1997) have convincingly questioned the idea that, in English at least, Ex is possible for BN subjects of any S-level predicate. Therefore, even the notion S-level might fail to play a role in a more accurate version of the assignment rules.
b. ??Uno stato di grandi dimensioni è prospero
   A state of large size is prosperous

(41) a. Un cane da guardia di grosse dimensioni è più efficiente
   A watch dog of large size is more efficient
b. ??Un cane da guardia di grosse dimensioni è più peloso
   A watch dog of large size is more hairy

(42) a. Un uccello di zone paludose è ghiotto di insetti
   A bird from marshy areas is crazy about insects
b. ??Un uccello di zone paludose è scuro/intelligente
   A bird from marshy areas is dark/intelligent

(Of course an adverb like ‘usually’ restores full acceptability of Gen in all the (b) examples)

What can the reason be for the existence of this so far unnoticed split in the class of I-level predicates? Pending further study of more lexical choices, it is tempting to observe that class A seems somewhat more ‘eventive’ than class B, a fact which might approximate it to S-level predicates: if so, one may try to conjecture that it is not the lexical nature of I-level predicates that provides for the generic reading, but rather always an habitual interpretation of the verbal aspect. Let us then tentatively suppose that ‘durational’ aspects, like that of a present or imperfect, neutralize an habitual/stative semantic distinction, only the latter, obviously, being compatible with predicates of the non-eventive class B.

These new observations lead us to the following minimal descriptive restatement of the conditions of assignment of the two readings to overt indefinites and to Romance BNs:

(35’) (revised)

\[
\begin{align*}
\text{S-level} & \quad \text{lexically characterizing B (stative)} \\
\text{I-level} & \quad \text{lexically characterizing A (habitual)} \\
\end{align*}
\]

\[
\begin{align*}
\text{episodic} & \quad \text{characterizing (habitual)} \\
\text{Ex} & \quad \text{Gen} \\
\end{align*}
\]

63
If this general picture is roughly correct, it follows that the distinction S-/I-level is severely insufficient for the description of the readings of BNs. Anyway, in one more case it is descriptively true that the assignment of a generic reading to Romance BNs is more restricted than in English and rather follows the pattern of Romance and English overt indefinite.

3. Two types of genericity

3.1 Referential and quantificational genericity

Now, all the environments licensing the generic reading of overt indefinites and Romance BNs (as well as those of (33) of course, involving default existential closure) display a common feature: they contain an intuitively quantificational element (essentially habitual aspect, generic adverb, lexically quantificational meaning of the predicate), which is likely to be responsible for the characterizing flavor of the sentence and may be taken to unselectively bind a subject variable (cf. some analogy with donkey-anaphora). Let us call the environments where the Gen reading may hold of overt indefinites and Romance BNs Q-characterizing ones. In these environments, as we noticed, genericity appears a sentence-level rather than a DP-level property.

On the grounds of these generalizations let me then formulate (43) as the central hypothesis of this paper:

(43) Romance BNs are always indefinites (à la Heim 1982), i.e. quantificational variables existentially or generically bound

A generic reading is instead always possible in Romance in all the environments discussed, crucially including the ones where it fails to obtain for BNs, if the same plural (or mass) nouns occurring bare above are introduced by the definite article:¹²

(44) a. Gli elefanti di colore bianco hanno creato in passato grande curiosità Gen
    The white colored elephants raised a lot of curiosity in the past

b. Gli elefanti di colore bianco sono estinti Gen
    The white colored elephants have become extinct

¹² As in English, in Romance kind-referring nominals can be made out of singular count definites, essentially with the same peculiarities of the English ones. French, which is known to disallow argument BNs completely, largely resorting to the partitive article in their place (this is perhaps the reflex of the impoverished number morphology of French, as argued by Delfitto and Schroten 1992), patterns, instead, like the rest of Romance with respect to definite generics.
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c. Gli elefanti di colore bianco diventano sempre più grandi man mano che si va a nord
   The white colored elephants grow larger as one drives North

d. Gli elefanti di colore bianco sono così chiamati per la pigmentazione della loro pelle
   The white colored elephants are so-called because of the pigmentation of their skin

e. Gli elefanti di colore bianco passeranno il Giudizio Universale domani alle 5
   The white colored elephants will undergo the Final Judgement tomorrow at 5

f. Gli elefanti di colore bianco sono stati sterminati in massa da un cataclisma
   The white colored elephants were mass-exterminated by a cataclysm

(45) a. Gli stati di grandi dimensioni sono prosperi
   The states of large size are prosperous

b. I cani da guardia di grosse dimensioni sono più pelosi
   The watch dogs of large size are more hairy

c. Gli uccelli di zone paludose sono scuri/intelligenti
   The birds from marshy areas are dark/intelligent

The syntactic evidence, thus, forces one to recognize at least two major types of generic nominals in a Romance language such as Italian: indefinite generics, including BNs, with the limited distribution sketched out in (34) above, and definite generics, with essentially a syntactically context-independent distribution.

Notice that, semantically, it is at least clear that indefinite generics cannot achieve the non-distributive reading which is required by true K-level predicates such as be extinct, grow bigger as you drive North and so on.

According to Gerstner and Krifka (1988), among others, the generic reading required of subjects of K-level predicates cannot be constructed quantificationally, but is achieved only through direct naming of the kind, i.e. in a (kind-)referential way. In other words, such predicates cannot naturally provide what was termed above a Q-characterizing environment. The facts above may be interpreted, then, as suggesting that such a kind-referential reading is available to Romance definite nominals but not to indefinites, including Romance BNs. It is useful to repeat and stress that the latter follow, in this respect, the well known behavior of English singular indefinites, as exemplified in the glosses of the corresponding Italian sentences above.

Therefore, one may state that, exactly like other indefinites, Romance BNs can be interpreted as existentially quantified and, in some well definable environments,
also as generically quantified, but not as kind-referring expressions. This hypothesis is summarized in (46)-(47):

\[(46)\]
\[\begin{enumerate}
\item a. Referential generics (kind names) are only expressible through overtly definite DPs in Romance
\item b. Quantificational generics are expressible through various sorts of indefinite DPs (indef. art., partitive art., cardinality expressions, bare nouns) bound by unselective \textit{generic} operators
\end{enumerate}\]

\[(47)\] \textit{Generic} operators: habitual aspect, appropriate adverbs of quantification, cardinality predicates

Thus, once more, even on purely syntactic and crosslinguistic evidence, genericity as such turns out to be an epiphenomenon covering two quite distinct interpretative strategies, kind reference and quantification.

3.2 Object bare nouns

Object BNs have been generally less carefully considered in the literature (with the notable exception of Dobrovie-Sorin and Laca’s 1996 work); once analyzed in the correct perspective they turn out, modulo some minor independent complications,\(^{13}\) to behave like the subject ones and to confirm the generalizations arrived at. Longobardi (1994) had already noticed that (in contrast with English) some object BNs in Italian are not ambiguous but only display the existential reading; this is the case with objects of \textit{episodic} predications:

\[(48)\] \textit{Ex}
\[
\text{Ho escluso solo vecchie signore}
\]
\[\text{I only excluded old ladies}\]

The very same lexical predicate, used in a \textit{characterizing} environment, may resume a generic reading for its object BN:

\[(49)\] \textit{Gen/Ex}
\[
\text{Una buona legge esclude solo cittadini stranieri dal diritto di voto}
\]
\[\text{A fair law only excludes foreign citizens from right to vote}\]

Other predicates seem to express a constant property of the object and can, thus, be viewed as lexically I-level w.r.t. the object argument; thus they allow the generic interpretation and actually disfavor the existential one, an important observation by Dobrovie-Sorin and Laca (1996):

\[(50)\] \textit{Gen}
\[
\text{Amo / Adoro / Mi piacciono arance di grandi dimensioni}
\]

\(^{13}\) Cf. Longobardi (1998) for details.
I love/adore/like oranges of large size

Finally, some predicates, known to be K-level with respect to the object, disallow generic bare objects completely:

(51) *Edison ha inventato lampadine
     Edison invented bulbs

As one may expect on the grounds of the behavior of subjects, the use of the definite article can restore (or retain) Gen in all cases, at the expense of Ex, while an overt indefinite like the partitive article essentially retains all the interpretations of the corresponding BN:

(52) a. Ho escluso solo le vecchie signore
     I only excluded the old ladies
     Gen
     b. Una buona legge esclude solo i cittadini stranieri dal diritto di voto
     A fair law only excludes the foreign citizens from right to vote
     Gen
     c. Amo/Adoro/Mi piacciono le arance di grandi dimensioni
     I love/adore/like the oranges of large size
     Gen
     d. Edison ha inventato le lampadine
     Edison invented the bulbs
     Gen

(53) a. Ho escluso solo delle vecchie signore
     I only excluded Partit. art. old ladies
     Ex
     b. Una buona legge esclude solo dei cittadini stranieri dal diritto di voto
     A fair law only excludes Partit. art. foreign citizens from right to vote
     Gen/Ex
     c. Amo/Adoro/Mi piacciono delle arance di grandi dimensioni
     I love/adore/like Partit. art. oranges of large size
     Gen
     d. *Edison ha inventato delle lampadine
     Edison invented Partit. art. bulbs

Thus, the pattern of object BNs essentially parallels that of subjects exemplified in 2.1 and, again, opposes Italian and English in the case of episodic and K-level predications: in fact, the gloss of (48) is ambiguous between Ex and Gen, as argued in Longobardi (1994), and that of (51) is acceptable.

---

As usual, the judgments abstract away from the possibility of taxonomic readings.
3.3 English bare nouns

The crucial difference between the pattern (35’) and that of English BNs, as usefully described e.g. in Diesing (1992), is, then, that genericity seems possible in English in at least three subcases where it is disallowed in Romance, i.e. with episodic predicates (in both subject and object position), with class B (non-eventive) I-level predicates, and with classical K-level predicates as well.

Hence, in such environments, Romance and English overt indefinites and Romance BNs behave alike, patterning along the lines in (35’), while, instead, English generic BNs correspond to overt definite nominals of Romance (and to English overt definite singulars, like the white elephant). Therefore it is plausible 1) to assume (35’), which is anyway necessary in English at least as a (set of) condition(s) on overt indefinites, as universal; 2) to suppose that English BNs have an additional possibility to achieve a generic reading (on this conclusion also cf. Dobrovie-Sorin and Laca 1996). This prompts the following conjecture:

(54) English generic bare nouns in these environments are not quantificational expressions, but kind-referring expressions (proper names for kinds)

The conclusion is, then, that English BNs are (semantically, though not in their overt syntax and not necessarily in their LF) ambiguous: they can be either kind names or variables (the latter existentially or generically bound,15) doing partial justice to both Carlson’s original proposal and Kratzer-Diesing’s approach.

If this proposal is correct, the whole comparative analysis, encompassing Romance and Germanic, provides sharp syntactic support for some mainly semantic distinctions proposed in the literature, in particular for Gerstner and Krifka’s (1988) distinction between definite (referential) and indefinite (quantificational) generics and Carlson and Pelletier’s (1995, Introduction) distinctions between 1) characterizing and kind-referring genericity, 2) true kind-level and cardinality predicates.

15 The idea that English BNs might be potentially ambiguous even as generics is anticipated in Carlson and Pelletier (1995, 11): the attribution of a quantificational generic reading, in addition to being the null hypothesis (given their behavior as existentials), is based on their patterning with overt indefinites rather than with singular definites when not denoting a natural or ‘well-established’ kind:

(i) a. A wounded tiger is dangerous
    b. ??The wounded tiger is dangerous
    c. Wounded tigers are dangerous

On such examples also cf. Vergnaud and Zubizarreta (1992).
4. The semantic parametrization

4.1 Bare nouns and the Mapping Hypothesis

More importantly, the analysis allows us to state in a more formal way a fundamental parametric difference between the mapping of syntactic structures to semantic properties in the Romance and English (but to some extent Germanic) nominal systems:

- Romance bare nouns are only quantificational expressions (i.e. variables, indefinites, like overt indefinites and unlike proper names)
- Germanic bare nouns can also be referential (i.e. generic constants, kind names, unlike overt indefinites and like proper names) (cf. Carlson 1977)

This parametrization, better summarized in (55)-(56) below, makes the differences in interpretation between Romance and English BNs fully understandable and largely predictable without any appeal to vague pragmatic or lexical criteria:

(55) referential  Gen   (in all environments)  
English BNs:  quantificational  
Gen   (in Q-characterizing environments)  Ex   (in S-level environments)

(56) quantificational  
Italian BNs:  Gen   (in Q-characterizing environments)  Ex   (in S-level environments)

To sum up the empirical differences motivating this parametric proposal, consider the following observations:

(57) English but not Romance BNs can be generic in object position with all sorts of predicates, in particular with:
- episodic (cf. translation of (48))
- K-level (cf. translation of (51))

English (and most Germanic) but not Romance BNs can be generic in subject position with all sorts of predicates, in particular with:
- episodic (cf. translations of (3a), (6a, b))
- true K-level (cf. translations of (3e, f, g))
- stative (Class B) I-level (cf. translations of (37b), (38b), (39b))
Let me now draw some consequences of this state of affairs for the influential approach to BNs and the mapping problem presented in Diesing (1992) (also cf. Kratzer 1988). Let us recall the main theorems following from Diesing’s (1992) system of axioms (her Mapping Hypothesis) for the description of English BNs:

for BNs outside VP (like preverbal subjects):

\[ \text{with S-level predicates} = \text{Ex/Gen} \]
\[ \text{with I-level predicates} = \text{Gen} \]

for BNs inside VP (like non-scrambled objects):

\[ \text{Ex} \]
\[ \text{(Gen only in a subset of cases, those admitting supposed covert scrambling)} \]

Though crucial aspects of Diesing’s Mapping Hypothesis have received new straightforward confirmation precisely from the Romance domain (cf. Longobardi 1998), some apparent problems for the approach might seem to emerge from this picture: it would probably be too strong for English in the case of (57a-b), too weak for Romance in the cases mentioned in (57c, d and e).

However, the first problem is now automatically solved by our admitting the possibility of referential genericity for Germanic BNs. The second problem is settled by introducing the characterizing/episodic distinction for predicates and restricting the definition of generic operators to a subset of the former type of environments (Q-characterizing). Thus, the present analysis does not contradict the Mapping Hypothesis, but may complement it by addressing and remedying some of its empirical inadequacies.

4.2 Bare nouns and proper names: typology, learnability and the D-parameter

Longobardi (1994, 1996) has made two core proposals concerning the syntax-semantics mapping in the domain of nominal denotation.

First, such works have pointed out the existence of an important distinction between Romance and English nominal syntax concerning proper names (PNs) in argument function, i.e. object-referring nominal arguments. In English such nouns may occur determinerless remaining in the normal post-adjectival position of determined nouns, i.e. they do not need to either be introduced by an overt determiner or move to the D (pre-adjectival) position (they actually cannot): from this viewpoint they do not differ structurally from bare common nouns. This behavior is well revealed by examples with adjective-noun sequences:

(58) a. Ancient Rome (was destroyed by the barbarians)
    b. *Ancient Rome (was destroyed by the barbarians)

(59) a. I met third children everywhere
b. *I met children third everywhere

In Romance, argument object-referring nouns are always necessarily introduced by a phonetically expanded D node: either they occur after a visible determiner (an expletive article) or are themselves moved to D (hence necessarily crossing over adjectives); in this sense their syntax sharply contrasts with that of bare common nouns, which is essentially the same as in English.

(60) a. *Antica Roma (fu distrutta dai barbari)
    Ancient Rome (was destroyed by the barbarians)
b. Roma antica (fu distrutta dai barbari)
    Rome ancient (was destroyed by the barbarians)
c. L’antica Roma (fu distrutta dai barbari)
    The ancient Rome (was destroyed by the barbarians)

(61) a. Ho incontrato terzi figli dappertutto
    I met third children everywhere
b. *Ho incontrato figli terzi dappertutto
    I met children third everywhere

The surface DP-internal structures involved are represented in (62) (with e symbolizing the lack of overt determiner):

(62) a. English BNs = English PNs
    [e (Adj) N]   [e (Adj) N]

b. Romance BNs   Romance PNs
    [e (Adj) N]   [Art (Adj) N]   [N (Adj) t]

Second, Longobardi (1994, 1996) has also proposed the existence of a crucial typological generalization relating the two types of D-less nominals: a proper name may occur without a D position phonetically filled (by an expletive determiner or by N-raising) iff a generic (plural or mass) noun may as well in all environments (i.e. iff BNs can be referential generics, in the terms of this article). In other words, if the semantics of BNs is of the English type, the syntax of PNs will be of the English type as well, and viceversa.

Though empirically well motivated (all the Germanic languages are likely to pattern on the English side, all of Romance and probably Greek and Albanian pattern
on the Italian side) and technically expressible, the relation between the two phenomena remained conceptually hard to understand.

Under the present account to the semantic parametrization of BNs, the typological generalization becomes perfectly understandable: PNs are referential expressions, actually object-referential; BNs differ in Italian and English precisely with respect to their capacity to function referentially, kind-referentially of course. I.e. referential generic BNs and PNs have something a priori in common, they are referential expressions. Longobardi’s (1994, 1996) generalization can now be more perspicuously rephrased as follows: BNs can be referential iff they have the same formal syntax as PNs, the prototypical referential expressions. The condition is positively satisfied in English, though not in Italian.

In other words, languages always use a unified strategy to assign object- and kind-reference to nominal structures, but this strategy is crosslinguistically parametrized: in English referential status can be assigned to nominals with no overtly realized D, in Romance it necessarily depends on a D position overtly occupied either by the noun itself (raising proper names, with object-reference) or by its placeholder, an expletive article in Vergnaud and Zubizarreta’s (1992), Longobardi’s (1994) sense (referential generic common nouns, with kind-reference, or proper names, with object-reference).16 The two parametric strategies are represented in (63):

16 Of the two strategies for reference, Romance kind-referring nominals can only use one: they can just be expressed through the definite expletive article, not via N-raising to D: Longobardi (1994, 1996) explained this fact by attributing it to the marked (Last Resort) status of overt syntactic movement (Chomsky 1995) in conjunction with the assumption that raising to D would not be necessary (a ‘last resort’) for common nouns to provide a grammatical output, as is instead the case with proper names.
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(63) a. English:

\[
[e \text{ (Adj) N}]
\frac{\text{Quantificational}}{\text{Referential}}
\]

b. Romance:

\[
[e \text{ (Adj) N} \quad \text{[Art (Adj) N]} \quad \text{[N (Adj) t]}}
\frac{\text{Quantificational}}{\text{Referential}}
\]

Therefore, in English, BNs can be referential (kind-referring), unlike the Romance ones, precisely because they have the same surface structure as PNs. The crosslinguistic variation in the interpretation of BNs discussed in this paper is reduced to the abstract parametric difference discussed by Longobardi (1994, 1996) with its far-reaching ramifications: in certain languages the referential feature of the determiner position, D, is ’strong’, that is visible systematic association of referential items with D (either by overt movement of the noun itself or by means of an expletive placeholder) is necessary, rather in the sense in which question operators must be visibly associated by wh-movement to the clause-initial position in many languages. In other languages, the referential properties of D are ’weak’, i.e. referential readings may affect nominal items not overtly associated with D, exactly as, in some languages, question words are not overtly wh-fronted (Huang 1982, Cheng 1991 among much related work).

Ultimately, the bulk of the parametric distinction is thus whether the referential or variable status of D must be encoded in the PF or not (cf. Longobardi 1996 for some speculations on this point related to Lazzeroni’s 1995 observation that similar semantic properties in some languages may even affect the prosodic phonology of head nouns): in Romance a D empty at PF is always translated into a variable, in Germanic it need not.17 N-to-D movement or an expletive article are two formal devices to prevent a D from being phonologically empty, hence to achieve a referential reading.18

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17 The head noun in such structures with empty Ds would naturally end up in the restrictor of the variable. The possibility of expressing the generalization this way was originally pointed out to me by Brenda Laca (p.c.) and suggested in writing by Benedicto (1997).

18 Natural independent principles ensure that N-to-D be available only to PNs, while the expletive strategy is available to both (certain) proper names and common nouns (i.e. referential generics) (cf. Longobardi 1996).
The same parameter accounting for the syntax of PNs and the semantics of BNs has been argued in the works cited to neatly cover three other morphosyntactic domains in which Romance contrasts with Germanic (especially affecting the syntactic distribution of BNs, the determiners of empty nouns and Case licensing within DP), so that it eventually turns out to be supported by a cluster of at least five apparently unrelated surface sources of evidence and is a good example of the deductive potential of a sound parametric theory.\footnote{Benedicto’s (1997) interesting approach, though sharing important basic insights with the present one and especially with Casalegno’s (1987) (not sufficiently accurate) semantic conclusions, tries to relate the differences between Romance and English BNs to properties of the verbal systems, obscuring the generalizations clearly connecting them, in my opinion, to PNs and other facets of nominal syntax.}

To sum up, the present line of analysis recommends itself, in comparison to other current approaches, for at least four empirical and conceptual reasons:

\begin{enumerate}
  \item deals with the interpretations of English BNs
  \item deals with the interpretations of Romance BNs
  \item deals with the interpretations of Romance and English overt indefinites
  \item explains the typological relation between the syntax of PNs and the interpretations of BNs
  \item makes the Romance evidence more easily compatible with the insights of the Mapping Hypothesis
\end{enumerate}

If these conclusions are correct, they suggest that a very close and abstract mapping exists between syntax and semantics, which emerges even under parametrically different surface forms.

But they also suggest some preliminary and partial answer to the main questions raised in the introduction: crosslinguistic variation of fine-grained interpretive properties, like the difference between referential and quantificational genericity as applied to the interpretation of BNs, actually exists, and seems to share the main features of syntactic parametrization. In these cases, comparative semantics seems definitely possible and as contentful as other components of a Principles-and-parameters theory of UG.

However, such crosslinguistic differences are, in principle, hardly manifested in children’s primary corpora, since they have often to do with the assumed logical representations of truth-functionally quasi-equivalent utterances. But the parametric clustering of the interpretation of BNs with other, clearly morphosyntactic, properties opposing Romance and English nominal systems provides an answer to this problem as well. The more visible differences in the behavior of proper names (and...
especially in all the other properties proposed to be connected to it in Longobardi 1994, 1996) make the relevant syntactic parameter straightforward to set, triggering the acquisition of certain crosslinguistically variable semantic properties otherwise unlearnable under normal conditions.

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