

**Introduction.** It is well-known that referential plurals support both collective predication with predicates of pluralities (‘the students are numerous’) and distributive predication with predicates of individuals (‘the students are blond’). Kind-referring plurals also support ‘collective’ predication, as in ‘birds are widespread’ (Carlson, 1977). However, with predicates of individuals, as in ‘birds fly’, it is usually assumed that there is no direct, distributive application of the predicate to the kind, but generic quantification on members of the kind (Krifka *et al.*, 1995, Chierchia, 1998 a.o.). **Summary.** In this work, I show that with predicates of individuals, Italian Definite Plurals are actually ambiguous between (i) generic quantification and (ii) distributive kind predication. This view parsimoniously explains the ESSENTIAL vs. CONTINGENT flavors of Definite Plurals (Puzzle 1, cf. section 1): generic quantification is responsible for the ESSENTIAL flavor, because of its modality; distributive kind predication is responsible for the CONTINGENT one, precisely because it lacks modal quantification. It also explains cumulative readings of characterizing sentences (Puzzle 2, cf. section 3), via the cumulative application of the predicate to the kind. I provide new Italian data corroborating this view relating to both puzzles. I also provide preliminary data suggesting that English Bare Plurals may involve similar mechanisms. **1. Puzzle 1: flavors of genericity.** As illustrated by the classical examples in (5) and (6), the Italian Definite Plural is compatible with both the ESSENTIAL and the CONTINGENT flavor; the Singular Indefinite, instead, is only compatible with the ESSENTIAL flavour (cf. Krifka *et al.*, 1995).<sup>1</sup> **1.1 New data: unavailability of the CONTINGENT flavor with subjunctive modification.** Similarly, as illustrated in (7), ‘being closed on Easter’ is an essential feature of Italian Restaurants, and both Italian Definite Plurals and Singular Indefinites can be used. Being closed on a random day is due to contingent circumstances; and indeed, only Italian Definite Plurals are compatible with this scenario (cf. (8); the facts are parallel for English Bare Plurals and Singular Indefinites, cf. Greenberg, 2004). When the Italian Definite Plural is modified by a relative in the indicative, as in (9), both flavors are possible, just like with unmodified Definite Plurals. However, when the Italian Definite Plural is modified by a relative in the subjunctive, as in (10), only the ESSENTIAL flavor is possible. **2. Proposal: pervasive kind predication.** I propose that Italian Definite Plurals can systematically denote kinds, and more specifically that an Italian sentence of the form ‘the *Ps Q*’ can always be parsed into two structures: (i) a quantificational structure involving generic quantification, as in (1a) (cf. Chierchia, 1998) or (ii) a plural, kind predication as in (1b).<sup>2</sup> The latter structure is itself ambiguous between collective and distributive readings (as well as cumulative ones, cf. 3), just like referential plurals are, as illustrated in (11)-(16).

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|--------------|---|--|
| (1) a. QUANT | $\text{GEN}_x[x \leq \cap P][Q(x)]$   | (only if <i>P</i> is a predicate of individuals) |
| b. KIND:     | $Q(\cap P)$ if <i>Q</i> is a predicate of kinds, $[\mathbf{D}_{atoms}(Q)](\cap P)$ if <i>Q</i> is a predicate of individuals. |  |

(2)  $\mathbf{D}_{atoms}(P_{\langle e,t \rangle}) = \lambda X. \forall x(\text{ATOM}(x) \wedge x \leq X) \rightarrow P(x)$

In the QUANT parse in (1a), the variables bound by GEN are obtained from material in its restriction via a process of accommodation (see, e.g., Kratzer 1995, Chierchia 1995, 1998, a.o.). In the KIND parse in (1b), ‘ $\cap$ ’ is Partee’s (1987) type-shifter used in Chierchia (1998), which manufactures a kind out of a property by taking the largest member of its extension (at any given world). For reasons of space I won’t discuss the exception tolerance of Italian Definite Plurals, but it could be explained in ways parallel to the non-maximality of referential plurals (e.g. Križ, 2015). **2.1 Solving Puzzle 1.** I assume that the ESSENTIAL flavor is part of the modal semantics of GEN, and is thus contributed by the QUANT parse in (1a); the CONTINGENT flavor is simply the absence of modality, thus contributed by the KIND parse. The Italian subjunctive, as is standardly assumed, is licensed by modal environments such as the restrictor of GEN (cf. Farkas, 1981; Panzeri, 2006). Because the subjunctive is not licensed in the KIND parse, cases like (10) only have the QUANT parse, hence only the ESSENTIAL flavor is available. **3. Puzzle 2: cumulative generalizations.** Just like English Singular Indefinites, Italian Singular Indefinite generics cannot receive cumulative readings, as shown in (17). This makes sense under (3): an individual typical elephant doesn’t live both in Africa and in Asia.

<sup>1</sup>All Italian judgments were collected from six native speakers of Italian.

<sup>2</sup>Of course, there is also the regular parse of the Italian Definite Plural as a referential plural. This differs from the (1b) parse in at least two respects: unlike the (1b) parse it can be domain-restricted and it has use constraints such as familiarity.

(3)  $\text{GEN}_x[\textit{elephant}(x)][\textit{lives-in}(\textit{Africa},x) \wedge \textit{lives-in}(\textit{Asia},x)]$

However, cumulative readings are possible with Italian Definite Plurals (just like English Bare Plurals), as shown in (18): the challenge is thus to understand what in their logical form makes these readings accessible. **3.1 New data: unavailability of cumulative readings with overt adverbs of quantification.** GEN is standardly thought of as a silent Q-adverb. Short of stipulations, we expect GEN and overt Q-adverbs like *usually* to behave alike (and they do in many respects, e.g. scopal behavior w.r.t. focus, cf. Krifka *et al.*, 1995). Interestingly, however, there is a contrast between sentences with overt Q-adverbs and sentences without them. As shown by (19), cumulative readings are not available with overt Q-adverbs: speakers report that ‘the same elephant can’t live in Africa and in Asia!’. **3.2 Solving Puzzle 2.** For cumulative sentences like (18), I propose we resort to the cumulativity operator  $**$  (Beck & Sauerland, 2000).

(4) a.  $\overset{\cap}{\textit{elephant}}[\textit{Asia} \oplus \textit{Africa} [** [\lambda y. \lambda x. \textit{live-in}(x,y)]]]] =$   
 $\forall x(\text{ATOM}(x) \wedge x \leq \overset{\cap}{\textit{elephant}}) \rightarrow (\exists y. \text{ATOM}(y) \wedge y \leq \textit{Asia} \oplus \textit{Africa} \wedge \textit{live-in}(x,y)) \wedge$   
 $\forall y(\text{ATOM}(y) \wedge y \leq \textit{Asia} \oplus \textit{Africa}) \rightarrow (\exists x. \text{ATOM}(x) \wedge x \leq \overset{\cap}{\textit{elephant}} \wedge \textit{live-in}(x,y))$

We predict cumulative Italian Definite Plural sentences like (18) to be consistent because although the QUANT reading is false, the cumulative KIND reading is true. We know independently that Italian Singular Indefinites cannot denote kinds, and thus correctly predict them to lack cumulative readings. We also correctly predict sentences with overt Q-adverbs such as (19) to be false or infelicitous. The QUANT parse is false in (19) for the same reasons as it is in (18). The KIND reading is infelicitous: no individual variable has been accommodated (unlike in the QUANT parse), so the Q-adverb can only range over events involving the whole kind, just like with proper names. Q-adverbs yield infelicity when they range over anything other than individuals in sentences with individual-level predicates such as ‘live in’ (cf. Kratzer, 1995; Chierchia, 1995): ‘John is often intelligent’ is infelicitous (cf. also (20)).

**3.3 Cumulativity + subjunctive modification.** While cumulative readings are possible when the Italian Definite Plural is modified by a relative in the indicative, they are ruled out when it is modified by a relative in the subjunctive, as shown in (21). This is predicted: the subjunctive is not licensed by the KIND parse, which is precisely the parse responsible for cumulative readings.

**4. Previous accounts.** Extant accounts of Puzzle 1 in English cannot be extended to Italian without additional stipulations. According to the most prominent, Greenberg (2004), English Singular Indefinites and Bare Plurals both provide a restriction for the modal quantifier GEN, but English Bare Plurals induce a different, more tolerant accessibility relation for GEN, which makes them compatible with both the ESSENTIAL and the CONTINGENT flavor. If we assume, extending this account to Italian, that Italian Definite Plurals induce a tolerant accessibility relation for GEN, it is not clear why and how the subjunctive affects the accessibility relation. Existing theories of Puzzle 2, instead, cannot straightforwardly predict the contrast between (18) and (19), because they don’t distinguish between cases with overt Q-adverbs and cases with GEN. For instance, Kirkpatrick (2022) gives an analysis of English Bare Plural generics in which cumulative readings are possible because GEN ranges over pluralities, to which the predicate in the scope applies cumulatively. On what grounds could we stipulate that overt Q-adverbs, unlike GEN, cannot range over pluralities? Moreover, and most importantly, no theory predicts the unavailability of cumulativity with subjunctive modification mentioned in 3.3. **5. An extension to English?** Standard theories assume that GEN is part of the verbal aspect: they predict that when the aspect is non-generic, e.g. episodic, English Bare Plurals should never receive generic interpretations. However, English Bare Plurals, unlike English Singular Indefinites, can in fact have ‘generic’ force when aspect is non-generic, e.g. with the present progressive, as in (22). This is surprising on the standard view: where does GEN come from there? An extension of the present theory to English Bare Plurals, instead, would predict this. Of course English Bare Plurals will be three-way ambiguous, between a  $\exists$ -QUANT, a GEN-QUANT, and a KIND reading. Then, while a generic aspect is instrumental for the QUANT parse to be available, the KIND parse should be available regardless. English Singular Indefinites cannot denote kinds: we correctly predict that, when aspect does not provide GEN, they can only get an existential reading, as confirmed by (22).

- (5) ESSENTIAL (*polyphonic*= essential property)
- a. I madrigali sono polifonici.  
The madrigals are polyphonic.  
'Madrigals are polyphonic.'
- b. Un madrigale è polifonico.  
A madrigal is polyphonic.  
'A madrigal is polyphonic.'
- (6) CONTINGENT (*popular*= contingent property)
- a. I madrigali sono popolari.  
The madrigals are popular.  
'Madrigals are popular.'
- b. #Un madrigale è popolare.  
A madrigal is popular.  
'A madrigal is popular.'
- (7) I ristoranti italiani sono chiusi oggi.  
The restaurants Italian are closed today.  
'Italian restaurants are closed today'
- a. Uttered on an Italian festivity day ( ESSENTIAL) ✓  
b. Uttered on a random day ( CONTINGENT) ✓
- (8) Un ristorante italiano è chiuso oggi. (As generic reading)
- A restaurants Italian is closed today.  
'An Italian restaurant is closed today'
- a. Uttered on an Italian festivity day (ESSENTIAL) ?/✓  
b. Uttered on a random day (CONTINGENT) \*
- (9) I ristoranti Italiani che **sono** gestiti da Siciliani sono chiusi oggi.  
The restaurants Italian that are-**ind.** managed by Sicilians are-ind. closed today  
'Italian restaurants that are-**indicative** managed by Sicilians are closed today.'
- a. Uttered on a Sicilian festivity day ( ESSENTIAL) ✓  
b. Uttered on a random day ( CONTINGENT) ✓
- (10) I ristoranti Italiani che **siano** gestiti da Siciliani sono chiusi oggi.  
The restaurants Italian that are-**subj.** managed by Sicilians are-ind. closed today  
'Italian restaurants that are-**subjunctive** managed by Sicilians are closed today.'
- a. Uttered on a Sicilian festivity day (ESSENTIAL) ✓  
b. Uttered on a random day (CONTINGENT) \*
- (11) a. The students are numerous. (Schematic ital.)  
b. *numerous*(*!students*)
- (12) a. The elephants are widespread. (Schem. it.)  
b. *widespread*(*∩elephant*)
- (13) a. The students are American. (Schematic it.)  
b. *!students*[*D*<sub>atoms</sub>[*λx.American(x)*]]
- (14) a. The elephants are grey. (Schematic italian)  
b. *∩elephant*[*D*<sub>atoms</sub>[*λx.grey(x)*]]
- (15) The students lifted the piano. (Schematic italian)
- a. *LTP*(*!students*)  
b. *!students*[*D*<sub>atoms</sub>[*λx.LTP(x)*]]
- (16) The linguists write 10,000 papers a year. (Schematic italian)  
(Krifka & Gerstner, 1987)
- a. *10k-papers*(*∩linguist*)  
b. *∩linguist*[*D*<sub>atoms</sub>[*λx.10k-papers(x)*]]
- (17) #Un elefante vive in Africa e in Asia.  
An elephant lives in Africa & in Asia.  
'An elephant lives in Africa and in Asia'
- (18) Gli elefanti vivono in Africa e in Asia.  
The elephants live in Africa & in Asia.  
'Elephants live in Africa and in Asia'
- (19) #Gli elefanti {tipicamente, di solito, generalmente} vivono in Africa e in Asia.  
The elephants {typically, of usual, generally} live in Africa and in Asia.  
'Elephants {typically, usually, generally} live in Africa and in Asia'
- (20) Lawyers are often intelligent. a. Many lawyers are intelligent. b. #Lawyers are intelligent on many occasions.
- (21) Gli orsi che {hanno, #abbiano} il pelo bianco vivono in Artide e in Groenlandia.  
The bears that {have-**indicative**, #have-**subjunctive**} the fur white live in Alaska and in Greenland.  
'Bears that {have-**indicative**, #have-**subjunctive**} white fur live in Greenland'
- (22) a. Sure enough, {swallows<sup>KIND,∃</sup> are / a swallow<sup>∃</sup> is} migrating now, in late March.  
b. {Americans<sup>KIND,∃</sup> are / an American<sup>∃</sup> is} buying more organic food than ever.

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