

Bare plurals in articleless languages as weak definites

Overview Are bare plurals (BPs) in articleless languages (ALs) in episodic contexts always interpreted existentially, or are they ambiguous between definite and narrow-scope existential interpretations? Based on novel data from Georgian, Russian, Hindi, Chinese, Farsi, and Turkish, we argue for a third option, extending suggestions by [9]: such BPs (possibly even in English) receive definite interpretations. Apparent existential readings are instances of the familiar non-maximal interpretation of definite plurals. In particular, the relevant silent type-shifter is argued to be a weak definite operator based on maximality, in contrast to the strong one based on familiarity [11, 24].

The debate about definiteness in ALs Descriptively, BPs with object-level predicates in ALs – illustrated here with Georgian – allow for (i) generic, (12a), (ii) definite, (12b), (iii) existential, (12c), and (iv) anaphoric, (13), readings (cf. [6, 8, 9, 3, 2, 10, 23, 20] a.o.). Despite the translations in (12b) and (13), it is not self-evident that BPs in ALs have access to definite meanings, though, since BPs with existential meanings would be useable in contexts in which English would have the definite article (e.g. [13]). Approaches building on [4] argue, however, that BPs in ALs have access to both definite and narrow-scope existential interpretations (cf. [6, 8, 10] a.o.). The latter accounts for the availability of (14b) and the unavailability of (14c) with the BP under negation.

Non-maximal interpretations of definite plurals If definite interpretations are available for BPs in ALs, they should show properties associated with definite plurals in languages like English. For instance, the latter allow non-maximal interpretations, the availability of which is dependent on the question under discussion (QUD, [15, 18, 19, 16, 1, 17] a.o.): the non-maximal interpretation is available only if it resolves the QUD in the same way as the maximal one, making the former pragmatically true enough while it is strictly speaking semantically false. Consider that (1b) but not (2b) is acceptable in its scenario, as only (1b) allows a non-maximal interpretation.

- (1) a. SCENARIO 1: *A bank robbery is to take place. One has to go through one of four doors to get to the safe. The doors are next to each other, i.e., the safe can be reached via any of the four doors. Last night, one of the doors was locked and the others were all open. John asks Bill – the robber – whether he could reach the safe. Bill says:*
b. Yes, the doors were open. \rightsquigarrow ‘some of the doors were open’ (adapted from [15])
- (2) a. SCENARIO 2: *A bank robbery is to take place. There are four doors one must go through to get to the safe. If one door is locked, one cannot reach the safe. Last night, one of the doors was locked and the others were all open. John asks Bill – the robber – whether he could reach the safe. Bill says:*
b. #No, but the doors were open. $\not\rightsquigarrow$ ‘some of the doors were open’ (adapted from [15])

The QUD in (1a) is ‘Was one of the doors open?’ as one door is enough to get to the safe. Both the maximal and the non-maximal interpretations of (1b) resolve that QUD positively. In (2a), the QUD is ‘Were all of the doors open?’, since all doors must be passed to get to the safe. The non-maximal interpretation of (2b) does not resolve that QUD, whereas the maximal one resolves it positively. Because of this difference the non-maximal interpretation is only available in (1b).

Novel data If BPs in ALs can be interpreted existentially, the sentences corresponding to (1b) and (2b) should both be acceptable in their respective scenarios. To see this notice that the English indefinite statement in (3) is true in both scenario (1a) and scenario (2a).

- (3) Some of the doors were open. ✓(1a), ✓(2a)

In the scenarios (1a) and (2a), the sentences from ALs in (15) and (16), however, show the pattern found with English definite plurals. This suggests that BPs in ALs are interpreted as definites.

Weak definite *THE* (4) is the entry for the definite type-shifter in the ALs considered [14]. C is the domain restriction, X is an atom or a plurality, and max requires X to be the maximal entity in $g(C)$ making the nominal predicate f true. Distributivity is assumed to be provided by f .

$$(4) \quad \llbracket \text{THE}_C \rrbracket^g = \lambda f_{et} : \exists X \in g(C) [f(X) = 1 \wedge max(X)] . \iota X \in C [f(X) = 1 \wedge max(X)]$$

(4) is compatible with different approaches to non-maximality [16, 1, 17]. For concreteness, consider the one by [16], yielding the truth-, falsity-, and gap-conditions in (5) for (12). The truth-value gap in (5) is not contributed by *THE* but, e.g., by the distributivity operator, or might even be a general feature of pluralities. Notice that the truth-condition in (5) encodes the maximal interpretation of the definite reading of (12) and the gap-condition the non-maximal one. The truth-condition thus straightforwardly accounts for the availability of the definite interpretation for the BP in (12b).

$$(5) \quad \llbracket (12) \rrbracket^g = \begin{cases} 1 & \text{iff there is a maximal dog plurality } X \text{ in } g(C) \text{ and every atom in } X \text{ is barking} \\ 0 & \text{iff there is a maximal dog plurality } X \text{ in } g(C) \text{ and every atom in } X \text{ is not barking} \\ \# & \text{there is a maximal dog plurality } X \text{ in } g(C) \text{ and some but not every atom in } X \text{ is barking} \end{cases}$$

We suggest that the existential (12c) corresponds to a non-maximal interpretation of the definite BP. Assume the scenario in (6), in which (12) is utterable. Here John lacks the evidence to utter (12) on the basis of the truth-condition of (5). The QUD in (6) is ‘Is John able to sleep?’, which is answered negatively as soon as one of the dogs in the neighborhood is barking. The gap condition in (5) thus resolves this QUD negatively, just as the truth-condition does. I.e. (12) is true enough in (6) giving rise to (12c), assuming there are dogs in (6), which seems innocuous enough.

(6) SCENARIO 3: *John informs Bill that he cannot sleep because of barking outside. There was no prior mention of dogs. John does not know the exact number of dogs in the neighborhood.*

The availability of the negated existential (14b) also follows. Assume the scenario in (7), making (14) utterable. Now, the negation of (5) yields true in (7) given the QUD above. This is due to the the homogeneity property encoded in the falsity-condition of (5). In addition, if a particular set of dogs were familiar in the context, the negated definite truth-conditions in (14a) would be intuited. This would be a quasi-anaphoric interpretation, i.e., (13) is also accounted for. Crucially, something close to the wide-scope existential (14c) is not generated on this account.

(7) SCENARIO 4: *John informs Bill that he can sleep, since there is no barking outside. There was no prior mention of dogs. John does not know the exact number of dogs in the neighborhood.*

Strong definite *the* English (8) is not utterable in (6). With *the* requiring familiarity – encoded as anaphoricity in (9)–which is not satisfied in (6), the unacceptability of (8) in (6) follows. I.e., *THE* is a weak and *the* a strong definite operator [24].

$$(8) \quad \text{The dogs are barking.} \quad \mathbf{X}(6) \quad (9) \quad \llbracket \text{the } i \rrbracket^g = \lambda f_{et} : f(g(i)) = 1 . g(i)$$

Assume English BPs use *THE*, too. Now, whenever familiarity is satisfied, (9) and (4) yield equivalent truth-conditions, with (9) contributing a stronger presupposition. Maximize Presupposition requires (9) to be used. Conversely, the use of (4) implicates that familiarity does not hold [12, 21, 22, 5]. I.e., the BP and the explicit definite plural in (10) would have slightly different inferences. If *car* in (10) automatically provides antecedent for $g(i)$ in *the*, MP blocks *THE*.

(10) There was a ghost on campus. Students/The students were afraid. [7]

(11) I bought a car. The wheels/*Wheels need to be replaced. [7]

Data and references

- (12) *žaḡlebi kep'en.* dogs bark
 a. 'Dogs bark.' Georgian
 b. 'The dogs are barking.'
 c. 'Some dogs are barking.'
- (13) *ot'axši ramdenime biči da gogo iqo. bičebi karts t'amašobdnen.* room-in several boy and girl was. boys cards played
 'Several girls and boys were in the room. The boys were playing cards.' Georgian
- (14) *žaḡlebi ar kep'en.* dogs not bark
 a. 'The dogs are not barking.' Georgian
 b. 'There are no dogs barking.'
 c. #'There are dogs that are not barking.'
- (15) a. *ki, karebi ġia iqo.* ✓(1a) yes, doors open were Georgian
 b. *Da, dveri byli otkryty.* ✓(1a) yes, doors were open Russian
 c. *evet, kapılar açık-tı.* ✓(1a) yes, doors open-ASP Turkish
 d. *Haan, daravaaje khule the.* ✓(1a) yes, doors open were Hindi
 e. *Are, Dærha baz budæn.* ✓(1a) yes, doors open were Farsi
 f. *Shi de, men zhiqian kai-zhe.* ✓(1a) yes, door earlier open-ASP Chin.
- (16) a. *ara, magram karebi ġia iqo.* ✗(2a) no, but doors open were Georgian
 b. *Net, no dveri byli otkryty.* ✗(2a) no, but doors were open Russian
 c. *Hayır, ama kapılar açık-tı.* ✗(2a) no, but doors open-ASP Turkish
 d. *Nahin, lekin daravaaje khule the.* ✗(2a) no, but doors open were Hindi
 e. *Næ, æma dær-ha baz bud-æn* ✗(2a) no, but doors open were Farsi
 f. *Bù, dānshì men zhiqian kai-zhe.* ✗(2a) no, but doors earlier open-ASP Chin.

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