No need for a theory of the distribution of readings of English bare plurals

Introduction. English bare plurals (BPs) can have (at least) three readings: generic, existential and Condoravdi’s (1997) reading. The distribution of these readings is constrained by a variety of grammatical factors: argument type (ILP vs SLP distinction); syntactic scope (wide vs narrow); focus assignment; argument type (subject vs object); etcetera. Various authors have thus developed rich theories of the distribution of readings of English BPs, that consist of a number of different operators (GEN, Chierchia’s DKP, existential closure, etc.) and a number of grammatical constraints on these operators. I argue that such a theory is not needed. I submit that all English BPs come with the same covert determiner 0, no matter their readings; that 0 has existential force, yielding BPs’ existential reading; while other readings arise through a mechanism of pragmatic strengthening modeled on Spector’s (2007) pragmatics for the semantics of plural morphology.

Spector (2007). In upward entailing environments (UEEs), plural morphology triggers a plurality inference: (1a) says John bought at least two books. This plurality inference disappears in downward entailing environments (DEEs): (1b) denies he bought any, not that he bought two. In nonmonotonic environments (NMEs), the plurality inference survives in the positive component of meaning: (1c) says that three boys bought at least two books; but it disappears in the negative component: (1c) denies anyone else read any book, not just that anyone else read more than one.

(1) a. John bought books. \[\begin{array}{c}
\text{b. John didn’t buy books.} \\
\text{c. Only three boys bought books.}
\end{array}\]

In order to account for pattern (1), Spector (2007) assumes that PL is semantically equivalent to \(\text{(at least) one}\) so that both are asymmetrically entailed by \(\text{(at least) two}\), as in (2a) (where arrows stand for entailment). Furthermore, PL and one are Horn-mates and differ only because the former is not a Horn-mate of two while the latter is, as in (2b) (where dotted lines stand for Horn-mateness). In DEEs like (1b) there are no implicatures, so that PL reveals its plain semantics, whereby it is equivalent to one. In UEEs, one triggers the scalar implicature that two is false, whereby the “only one” reading. Through a mechanism of double strengthening detailed in Spector (2007) and Fox (2007), PL in (1a) thus triggers the implicature that this implicature of one is false, whereby the “more than one” reading. The correct meaning for the NME (1c) is easily derived. Crucially, the “more than one” inference of PL is parasitic on the “not more than one” implicature of one.

Proposal. The BP dogs is generic in UEEs (3a). This readings disappears in DEEs: (3b) does not just deny that dogs are generally carnivorous. In NMEs, the generic reading survives in the positive component of meaning: (3c) says dogs in three countries are generally carnivorous; but disappears in the negative component: (3c) doesn’t just deny dogs are elsewhere generally carnivorous.

(3) a. Dogs are carnivorous. \[\begin{array}{c}
\text{b. It is false that dogs are carnivorous.} \\
\text{c. In only three countries, dogs are carnivorous.}
\end{array}\]

As patterns (1) and (3) are formally analogous, I suggest to extend Spector’s account to English BPs, as follows. Every English BP, no matter its reading, is headed by a phonologically null determiner 0, i.e. dogs stands for \([0]\) dogs. The determiner 0 is semantically equivalent to some so that both are asymmetrically entailed by all/most/generally, as in (4a). Furthermore, 0 and some are Horn-mates and differ only because the former is not a Horn-mate of all while the latter is, as in (4b). In DEEs (3b) there are no implicatures, so that 0 reveals its plain existential semantics. In UEEs, some triggers the implicature that all/generally is false, whereby the “only some” reading. Again through double strengthening, 0 in (3a) thus triggers the implicature that this implicature of some is false, whereby the universal/generic reading. The NME (3c) falls into place.

Prediction. This proposal predicts BP’s generic reading to be parasitic on the not-all implicature of the corresponding overt indefinite. The distribution of BP’s generic/existential readings thus depends on the distribution of the not-all implicature of overt indefinites, as stated in (5).
distribution of the latter implicature is constrained in a complicated way (beyond the scope of this paper). And this is the source of the complicated distribution of BP’s readings. Thus, (5) says that there is no need for a dedicated theory of the distribution of BP’s readings; we need instead a theory of the availability of the not-all implicature for overt indefinites, and that’s all we need.

(5) An occurrence of the BP [∅ NP] has a generic (existential) reading iff the corresponding overt indefinite [some NP] triggers (doesn’t trigger) the not-all implicature out of the blue. The talk shows that (5) is indeed borne out on a number of classical cases, such as the following.

■ Case #1. Readings of BP subjects correlate with predicate type (Carlson 1972): dogs has generic reading with the ILP carnivorous in (6a) and existential reading with the SLP play in (6b).

(6) a. Dogs are carnivorous  a’. Some dogs are carnivorous.
   b. Dogs were playing in the backyard.  b’. Some dogs were playing in the backyard.

This pattern (6a)/(6b) conforms to (5): out of the blue, some dogs triggers the not-all implicature in (6a’) but not in (6b’). This pattern (6a)/(6b) thus follows straightforwardly from (4).

■ Case #2. BP objects can be existential independently of predicate type, as in (7a)-(7b).

   b. John knows good lawyers.  b’. John knows some good lawyers.

The intensional BP object lawyers in (7c) is instead construed generically. This pattern again conforms to (5), as some lawyers does trigger the not-all implicature in (7c’).

■ Case #3. Existential BPs only have narrow scope, as in (8a), thus lacking scope ambiguities.

(8) a. Every boy read books. (∀∃, ∃∀)  b. Every boy read some books. (∀∃, ∃∀)

Again, this pattern conforms to (5). I argue that when some books has wide scope wrt to every boy in (8b), it triggers the not-all implicature, as in “Some books are such that every boy read them.” That is not necessarily the case when some books has narrow scope in (8b), as in “For every boy there are some books he read.” When wide scoped, the BP books in (8a) thus only gets the generic reading, while the existential reading is only available when the BP is narrow scoped.

■ Case #4. Surprisingly, BP subjects of ILPs get the existential reading if embedded under another universal operator: (9a) can mean that for every man there are women related to him (Fox 1995).

(9) a. Jewish women are related to every Jewish man.
   b. Some Jewish women are related to every Jewish man.

In conformity with (5), some women in (9b) triggers no implicature when scoped below every man.

■ Case #5. The BP typhoons in (10a) can be construed as existential or generic (Wilkinson 1991).

(10) a. Typhoons arise in this part of the pacific.  b. Some typhoons arise in this part of . . .

In conformity with (5), some typhones in (10b) does or does not trigger the not-all implicature, depending on whether the sentence is construed as about typhoons or about this part of the pacific.

■ Other readings. (a) The BP students in (11a) is neither generic nor existential, rather equivalent to the definite the students (Condoravdi 1997). By (4), the reading predicted for this BP is existential plus the negation of the implicature triggered by some students in (11b). The latter implicature is that it is false that the students on campus were aware, not that all students in general were. The predicted meaning of (11a) is thus that the students on campus were aware, as desired.

(11) a. In 1985 there was a ghost haunting the campus. Students were aware of this fact.
   b. In 1985 there was a ghost haunting the campus. Some students were aware of this fact.

(b) For the kind-reading, I assume (as Diesing 1992 and Chierchia 1995) that BPs are ambiguous between kind-denoting terms and predicates with the null determiner ∅; my proposal only applies to the latter. (c) To account for extreme narrow scope existential BPs (Carlson 1972), I assume that ∅ can take narrower scope than overt indefinites. My proposal crucially predicts that extreme narrow scope generic BPs cannot exist (as the alternative with the overt indefinite is unavailable).