Bare plural nominals in Romanian and French

Abstract  In this paper we investigate Bare Plurals (BPs; NP_{PL}) in English and Romanian and Bare Plural Partitives (BParts; i.e. des NP_{PL}) in French. Romanian BPs and French BParts only share with English BPs the existential interpretation with obligatory narrow scope. We propose that this reading shared by all three comes from the same pieces: a non-kind-selecting predicate, a kind-denoting argument, and a special combination operation ‘Derived Kind Predication’ (DKP) glueing the two together by providing local existential quantification over instances of the kind. French BParts only have this reading because the partitive de spells out DKP. The kind and generic patterns for English, French, and Romanian fall out once we consider what happens when we remove DKP from this structure.

Keywords  Bare Plurals, Bare Partitives, Kinds, Derive Kind Predication (DKP), English, Romanian, French

1 Introduction

The distribution and interpretation of Bare Plurals (BPs; e.g., dogs in Dogs barked.) is known to vary across languages (Chierchia 1998, Dayal 2004, Dayal 2011, a.o.). For example, BPs are available in English (Carlson
but in Romance they either have a more limited distribution (Longobardi 2001 in Italian, McNally 2004 in Spanish, Dobrovie-Sorin et al. 2006 in Romanian, a.o.) or they are altogether not allowed as in French (Roy 2001, a.o.). Even when acceptable, BPs across Romance do not all allow all the readings that English BPs do, which has led to many different analyses for various languages.

In this paper we revisit this issue by comparing the case of English, Romanian, and French. Form-wise, Romanian patterns with English against French in that the former two have BPs while French uses Bare Partitives (BParts). Meaning-wise, however, Romanian patterns with French against English because they both lack the kind and universal reading of English BPs; at the same time, all of English BPs, Romanian BPs, and French BParts share the narrow-scope existential reading (§2). We propose a unified account from which both their similarities and differences follow (§3 and §4).

2 Data: A two-way distinction between English, Romanian and French

Form-wise, Romanian seems to pattern with English against French; the English Bare Plurals (BPs; NP_{PL}) in (1-a) can be rendered by BPs in Romanian patterns with English against French in that the former two have BPs while French uses Bare Partitives (BParts). Meaning-wise, however, Romanian patterns with French against English because they both lack the kind and universal reading of English BPs; at the same time, all of English BPs, Romanian BPs, and French BParts share the narrow-scope existential reading (§2). We propose a unified account from which both their similarities and differences follow (§3 and §4).

(i) a. Chiens et chats avaient tous l’air très sale.
    dogs and cats have all the appearance very dirty

   ‘Dogs and cats all look very dirty.’(Heycock & Zamparelli 2003: 5)

b. Ils sont professeurs.
   they are professors
   ‘They are professors’
manian, (1-b), but not in French, (1-c), where a Bare Partitive (BPart; des NP_{PL} ‘of the NP_{PL})\textsuperscript{2} form has to be used instead (1-d).\textsuperscript{3}

(1) a. (i) Kids came by us. \hspace{1cm} \textit{English BPs}
     (ii) I ate biscuits with my milk.

b. (i) Au venit pe la noi copii. \hspace{1cm} \textit{Romanian BPs}
     have come by us kids
     (ii) Am mâncat biscuiți cu lapte.
     have eaten biscuits with milk

c. (i) *Enfants sont venus chez nous. \hspace{1cm} \textit{*French BPs}
     kids are come at us
     (ii) *J’ai mangé biscuits dans mon lait.
     I have eaten cookies in my milk

d. (i) Des enfants sont venus chez nous. \hspace{1cm} \textit{French BParts}
     of the kids have come by us
     (ii) J’ai mangé des biscuits dans mon lait.
     I have eaten of the biscuits in my milk

Meaning-wise, however, Romanian seems to pattern with French against English; specifically, they both differ from English BPs in the same way in that they only allow an existential interpretation with obligatory narrow scope (see Dobrovie-Sorin et al. 2006 for Romanian and Roy 2001 for French). We will show this step-by-step below.

To begin with, unlike English BPs, Romanian BPs and French BParts cannot denote kinds. When combined with kind-level predicates, they only yield an existential subkind reading. That is, while (2-a) means that the whole bear kind is on the verge of extinction, the corresponding sentences in Romanian and French mean that there exist some subkinds of the bear

\textsuperscript{2}Following Chierchia (1997), we use this label to denote an NP introduced by a complex determiner derived from the contraction of the preposition de (‘of’) with the definite article les.

\textsuperscript{3}The English and French BP examples are from Chierchia (1998:355-356).
kind (e.g., the grizzly bears, the polar bears) that are on the verge of extinction, (2-b).

(2) **Kind-level predicates:**

a. ✓ Kind reading

Bears are on the verge of extinction.  

b. ✓ ∃-Subkind reading/*Kind reading

(i) Urşii sunt pe cale de dispariţie.  

bears are on verge of extinction  

(ii) Des ours sont en voie d’extinction.  

of the bears are on the verge of extinction

Furthermore, Romanian BPs and French BParts do not generally yield the generic interpretations allowed by English BPs. To illustrate, consider the English sentence in (3-a). (3-a) is interpreted as all dogs typically bark. By contrast, the corresponding sentences in Romanian and French can only get an existential reading, (3-b), i.e., that some dogs bark.

(3) **Generic contexts:**

a. ✓ Universal reading

Dogs bark.  

b. ✓ Existential reading/ †Universal reading

(i) Câini latră.  

dogs bark  

(ii) Des chiens aboient.  

of + the dogs bark

To get a kind and a generic reading, French and Romanian use the definite

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Note that French BParts can have a generic reading in some specific constructions such as ça-construction (Roy 2001, a.o.) Those constructions would need to be explored in further research.
article, as illustrated below.

(4) a. ✓Kind reading

(i) Urși+i sunt pe cale de dispariție. Romanian
bears.the are on verge of extinction
(ii) Les ours sont en voie d’extinction. French
the bears are on.the verge of.extinction

b. ✓Generic reading

(i) Câini+i latră. Romanian
dogs.the bark
(ii) Les chiens aboient. French
the dogs bark

Nevertheless, Romanian BPs and French BParts share important properties with English BPs (and more generally, with BPs across languages). In particular, in episodic contexts they are all interpreted as indefinites and therefore yield an existential reading, (5).

(5) Episodic contexts:

✓Existential reading

a. Yesterday, Leo met firemen. English
b. Ieri, Leo a întâlnit pompieri. Romanian
   yesterday Lea has met firemen
c. Hier, Léo a rencontré des pompiers. French
   yesterday Leo has met of.the firemen

Crucially, under their existential interpretation, Romanian BPs and French BParts, as English BPs, always take low scope when co-occurring with scope-taking expressions, (6). As illustrated in (6-a), English and Romanian BPs as well as French BParts all take low scope with respect to nega-
Moreover, when they co-occur with adverbial modifiers such as *for three hours*, the latter takes wide scope with respect to the BPs and BParts, (6-b). Finally, English and Romanian BPs as well as French BParts are all interpreted under the scope of intensional verbs such as *want*, (6-c).

(6) **Scopelessness:**

a. *Narrow scope* \( \sqrt{\sim} \rightarrow \text{BP} \) \( \ast \text{BP} \) \( \rightarrow \sim \)

(i) Leo didn’t meet firemen. \( \text{English} \)

(ii) Leo nu a întâlnit pompieri. \( \text{Romanian} \)
    Leo not has met firemen

(iii) Léopas rencontré de pompiers. \( \text{French} \)
    Leo NE.has not met of firemen
    ‘Leo didn’t meet any firemen.’

b. *Differentiated scope* \( \sqrt{\text{Adv}} \rightarrow \text{BP} \) \( \ast \text{BP} \) \( \rightarrow \text{Adv} \)

(i) Leo killed rabbits for three hours. \( \text{English} \)

(ii) Leo a omorât iepuri timp de trei ore. \( \text{Romanian} \)
    Leo has killed rabbits time of three hours

(iii) Léo a tué des lapins pendant trois heures. \( \text{Fr} \)
    Leo has killed of the rabbits during three hours
    ‘For three hours, Leo killed different rabbits.’

c. *Opacity* \( \sqrt{\text{want}} \rightarrow \text{BP} \) \( \ast \text{BP} \) \( \rightarrow \text{want} \)

(i) Leo wants to meet firemen. \( \text{English} \)

(ii) Leo vrea să întâlnească pompieri. \( \text{Romanian} \)
    Leo wants to meet firemen

(iii) Léo veut rencontrer des pompiers. \( \text{French} \)
    Leo wants meet of the firemen
    ‘What Leo wants is to meet firemen, he would be happy to meet any firemen.’

\(^5\)Note that surprisingly in French, the definite article *les* disappears when a BPart occurs under the scope of negation. We assume that *de NP\( _p \)* has the same structure and meaning as *des NP\( _p \)* elsewhere.
To summarize, we have shown in this section that regarding their interpretation, Romanian BPs behave as French BParts in that they only share the existential interpretation with obligatory narrow scope with English BPs.

<table>
<thead>
<tr>
<th>Kind</th>
<th>Generic</th>
<th>Episodic</th>
<th>Scope wrt QPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>English BPs</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Romanian BPs</td>
<td>*</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>French BParts</td>
<td>*</td>
<td>*</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 1: Interpretations of English BPs, Romanian BPs and French BParts

Given those data, a theory of BPs crucially needs to capture that (1) English and Romanian BPs as well as French BParts take obligatorily narrow scope with respect to other scope taking expressions and (2) unlike English BPs, Romanian BPs and French BParts cannot denote kinds nor can they have a generic interpretation; to express a kind and a generic reading, Romanian and French have to use the definite article.

3 The neocarlsonian approach to English BPs

In this section we introduce the traditional neocarlsonian analysis to English BPs, highlighting its key features so as to understand what pieces may vary in the case of Romanian and French.

Following Carlson (1977), we assume that BPs denote kinds. More concretely, following Chierchia (1998), we assume that BPs are of type $(s,e)$, formed via $\cap$, ‘Down’ – a typeshifter that converts a property (type $(e,t)$) into a kind (type $(s,e)$), (7-a)-(7-b). Another typeshifter $\cup$ ‘Up’ takes us back from a kind to instances of it, (8-a)-(8-b).

(7) a. $\text{Down}, \cap: \lambda P_{(s,e,t)} \cdot \lambda w_s \cdot tP(w)$

b. $[\text{dogs}] = \cap \text{dogs} = \lambda w_s \cdot [t\text{dogs}(w)]$
The various readings of English BPs can then be captured as follows.

English BPs are plural NPs that undergo typeshifting by $\cap$. The resulting meaning (type $\langle s, e \rangle$) can combine directly with a kind-selecting predicate (type $\langle se, t \rangle$), giving us the kind reading, (9-a). However, when an English BP combines with a non-kind-selecting predicate (type $\langle e, t \rangle$ or $\langle e, et \rangle$), a type mismatch occurs. In a generic context it can be fixed by movement of the BP into the restriction of the genericity operator Gn (via a process of accommodation), which will result in modalized universal quantification over instances of the kind, (9-b). In an episodic context it can be fixed via an operation called ‘Derived Kind Predication’ (DKP), which provides existential quantification over instances of the kind, (9-c).

(9) a. $[\text{Dodos are extinct}] = [\text{are extinct}]_{\langle se, t \rangle} (\cap \text{dodos})_{\langle se, t \rangle}$

b. $[\text{Dogs bark}] = \text{Gn} x, s [\cup \cap \text{dogs}(x) \land \text{Contain}(x, s)][\text{bark}(x)]$

c. (i) Derived Kind Predication (DKP): If $P$ applies to ordinary individuals and $k$ denotes a kind, then $P(k) = \exists x [\cup k(x) \land P(x)]$.

(ii) $[\text{Dogs are barking}] = [\text{are barking}] (\cap \text{dogs})$

$= \exists x [\cup \cap \text{dogs}(x) \land [\text{are barking}] (x)]$

Because a crucial component of the study of BPs regards their scopelessness with respect to, e.g., temporal adverbial phrases such as for-phrases, (6-b), we may wonder how we can cast these results into event semantics. We will show how this can be done in Champollion (2015)’s quantifica-
tional event semantics. Note however that our proposal is independent of whether or not one uses event semantics. (Although in §4 event semantics will allow us to easily give a stable meaning for the French morpheme de/DKP, (20), regardless of whether it applies to subjects or objects.)

Champollion (2015) proposes that verbs are generalized quantifiers over events, (10). Arguments are introduced into the derivation via applicative heads, (11). Once all the syntactic arguments of the verb have been introduced, a closure operator brings us back to a truth value, (12). The derivation of a simple sentence with arguments of type $e$ is shown in (13).

(10) $\text{[see]} = \lambda f_{v,t} \cdot \exists e[\text{see}(e) \land f(e)]$

(11) $\text{[AppAg/Th-e]} = \lambda V_{v,t} \cdot \lambda x_e \cdot \lambda f_{v,t} \cdot V(\lambda e_v \cdot [f(e) \land \text{Ag/Th}(e) = x])$

(12) $[[\text{closure}]] = \lambda e_v \cdot \text{true}$

(13) John saw Mary.

$\exists e[\text{see}(e) \land \text{Ag}(x) = \text{John} \land \text{Th}(x) = \text{Mary}]$

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6Because it has better empirical coverage than previous proposals of event semantics.
7We depart from Champollion in making the applicative a sister to a node on the verbal spine rather than to the DP. This is because we regard the applicative heads as projections of the lexical properties of the verb. This departure does not affect the core of Champollion’s proposal.
In addition to these, we also propose the following: a new applicative head AppAg/Th(\langle s, e \rangle) which creates an argument slot of type \langle s, e \rangle for kind-selecting predicates (14), giving us the kind reading of English BPs as illustrated in Figure 1; a new quantificational-event-semantics definition of Gn (15), to capture the generic reading of English BPs (see Figure 1). And a new quantificational-event-semantics definition for DKP, which we propose is yet another type of applicative head, AppAg/Th_{DKP}, 8 (16), which at the same time creates an argument slot for the verb and also provides existential quantification over instances of the kind argument. If we assume that negation or for-adverbials are only introduced at vP level (after all the arguments have been added in) AppAg/Th_{DKP} will ensure that English BPs will always take scope below them. The derivation of a sentence including both a BP and negation is given in Figure 1.

(14) \[
\text{[AppAg/Th-}\langle s, e \rangle] = \lambda V_{\langle v_t, t \rangle} \cdot \lambda x_{\langle s, e \rangle} \cdot \lambda f_{\langle v_t, t \rangle} \cdot V(\lambda e_v \cdot [f(e) \land \text{Ag/Th}(e) =}
\]

8Or AppAg/Th_{DKP} could possibly be viewed as a typeshifted version of AppAg/Th-e.
In the next section we will show how, with a minimal modification, this proposal can also be extended to French and Romanian, and how, once we have taken into account a couple of independent properties of these languages, all the empirical patterns fall out.
12

Figure 1: English BPs
4 Proposal: Capturing the interpretations of Romanian BPs and French BParts as well as of Romanian and French DEF NPs

Recall that Romanian BPs and French BParts do not behave as English BPs in that they cannot combine with kind-denoting predicates nor can they have a universal interpretation in generic contexts. Romanian BPs and French BParts only share the existential interpretation with obligatory narrow scope with English BPs (see Table 1). To get a kind and a generic interpretations, Romanian and French use the definite article. The questions raised are thus the following: What is the source of variation? And how do we account for it?

We propose that what varies between English on one hand, and Romanian and French on the other hand, is twofold. First, while in English DKP is realized as a type of applicative head (App\textsubscript{DKP}) that introduces both an argument slot for the verb and quantification over instances of the kind argument, in French and Romanian it is realized as a separate morpheme which combines the verb modified by the applicative head AppAg/Th with the kind-denoting DP, (20). Second, BPs are incarnated in two ways in those languages. That is, while in English BPs are incarnated into an NP, in Romanian and French they are incarnated into a DP with restrictions on null D.

\[(20) \quad \Box_{\text{de/DKP}} = \lambda y_{\langle e, e \rangle} \cdot \lambda Q_{\langle e, (v, t, t) \rangle} \cdot \lambda f_{\langle v, t \rangle} \cdot \exists z[]y(z) \wedge Q(z)(f)]
Let’s now consider again the following examples where Romanian BPs and French BParts get a narrow scope existential reading when co-occurring with adverbial modifiers such as *for three hours*.

(21) Existential Reading

a. Ion a fugărit câini timp de trei ore.  
   Ion chased dogs for three hours  
   
   *Romanian*

b. Jean a chassé des chiens pendant trois heures.  
   Jean has chased of the dogs during three hours  
   ‘John chased dogs for three hours.’  
   
   *French*

The analysis provided for English in Section 3 (19) cannot capture these Romanian and French data since the French BPart (and presumably the Romanian BP) does not denote a kind, unlike English BPs, and therefore cannot combine with App<sub>DKP</sub>. What we suggest is that while in English DKP is realized as a type of applicative head, App<sub>DKP</sub>, in French and Romanian it is split into an applicative head, AppAg/Th, and DKP which combines with the kind-denoting DP. To illustrate, the structure of the sentences in (21) is given in Figure 2. Both Romanian and French NPs denote properties.
They combine with the ‘Down’ operator, $\cap$, to refer to kinds. While $\cap$ is not pronounced in Romanian, it is spelled-out as the definite article *les* in French. These DPs then combine with DKP, which introduces an existential quantification over instances of the dog-kind. Here again, DKP is spelled out *de* in French\(^9\) whereas it is silent in Romanian.\(^{10}\)

Now, recall that Romanian BPs and French BParts cannot have a kind reading. In order to get a kind interpretation, Romanian and French use the definite article as illustrated below.

(22) Kind reading

\begin{itemize}
  \item[a.] Urși+i sunt pe cale de dispariție. \textit{Romanian}
bears.the are on verge of extinction
  \item[b.] Les ours sont en voie d’extinction. \textit{French}
  the bears are on the verge of extinction
\end{itemize}

We have seen that in French, $\cap$ can be spelled out as the definite article *les* making *les* ambiguous between an $\iota$ and a $\cap$ meaning. In order to derive the kind reading of the French sentence in (22), the kind-selecting predicate *sont en voie d’extinction* (‘are on the verge of extinction’) simply takes the kind-denoting DP as an argument (see Figure 2). By contrast, in Romanian, the definite article always has an $\iota$ meaning. (Since the definite

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\(^9\)Another language in which DKP seems to be spelled out is Maori, a Polynesian language of New Zealand. Maori DPs introduced by the indefinite determiner *he* could be analyzed in the same way as Romanian BPs and French BParts are (cf. Chung & Ladusaw 2004 for more details about Maori *he*).

(i) \quad \begin{array}{l}
  \text{he} \quad \text{tandata} \\
  \text{DET} \quad \text{person} \\
  \left[ DP \ \text{he}_{DKP} [DP \ \cap [NP \ \text{tangata}]] \right]
\end{array}

\(^{10}\)Note that while we have evidence that DKP combines with the kind-denoting DP in French, we do not have any for Romanian. Nevertheless, for sake of parallelism across these two Romance languages, we assume that DKP occurs in the same position in both French and Romanian.
article in Romanian shows up differently on different words, henceforth we will label it $\text{DEF}_{\text{Ro}}$ for convenience.) In order for the DP to denote a kind, we abstract over worlds (option we know to be available for Italian, Chierchia 1998) as illustrated in Figure 2. Now why can’t Romanian BPs and French BParts have a kind reading? Since French BParts (by virtue of their meaning) always include DKP introducing existential quantification over instances of the kind denoted by the DP, the only reading that they can get is an existential one. Now, in Romanian, two options are available when the DP is projected: (1) the D head remains silent and gets a $\cap$ meaning (as in (21)) or (2) the D head is spelled out as $\text{DEF}_{\text{Ro}}$ and gets a $\cup$ meaning. We further propose that Romanian has a restriction on null D heads. Specifically, if an overt determiner can be used without making the derivation crash, this determiner has to be used. Now, when Romanian DPs combine with kind-selecting predicates, options (1) or (2) would give rise to the same meaning. However, option (1) would violate the restriction on null D heads, unlike option (2), capturing the fact that Romanian has to use $\text{DEF}_{\text{Ro}}$ to get a kind reading. Now, one may wonder why option (1) has to be used in episodic contexts. If option (2) were to be used, the meaning that we would obtain is a definite meaning, since we wouldn’t need to introduce DKP to avoid the composition to crash. By contrast, when option (1) is used, DKP has to be introduced to save the derivation and we thus obtain an existential reading.

Finally, in order to get the generic reading, Romanian and French also have to use the definite article. The analysis of the following sentences is provided in Figure 2.
(23) Generic reading

a. Câini+i latră.                       Romanian
   dogs. the bark
b. Les chiens aboient.                French
    the dogs   bark

That Romanian does not use BPs to express generic readings also follows from the restriction on null D heads. The question now is, why can't French BParts get a generic reading? Since French BParts are made up of DKP, we do not expect them to get a generic meaning, as is the case in English when DKP is part of the structure. However, since in French, DKP is a morpheme, one could wonder whether its argument can be moved to the restriction of the generic operator. We argue that the kind-denoting DP cannot move to the restriction of Gn due to a ban of extraction of a DP out of another DP.

(24) a. Je vais ramener une bouteille de vin.       French
       ‘I will bring a bottle of wine.’
b. *Qu’est-ce que je vais ramener une bouteille de? French
       ‘What will I bring a bottle of?’

To conclude, we have shown in this section that a minimal modification of the neocarlsonian approach to BPs captures the existential reading that Romanian BPs and French BParts share with English BPs. We further argue that the fact that Romanian BPs and French BParts do not allow kind and generic readings follows from specific properties of those languages: namely, a restriction on null elements for Romanian and the nature of BParts as well as a ban on subextraction for French.
Bears are on the verge of extinction.

Dogs bark.

John chased dogs for three hours.
5 Conclusion

In this paper we adopted a neocarlsonian approach to English BPs (Chierchia 1998) to capture the various readings that English BPs can have, namely, the kind reading, the generic reading, and the existential reading that displays obligatory narrow scope. Since Romanian BPs and French BParts only allow the existential interpretation, we proposed that the difference between English BPs, on the one hand, and Romanian BPs and French BParts, on the other hand, follows from (1) the distinct structure of English BPs (NP: \( \cap \text{Noun} \)), Romanian BPs (DP: \( \cap \text{Noun} \)) and French BParts (DP: DKP \( \cap \) Noun) and (2) a restriction on null determiners in Romance (null Ds are banned in French, and they are a possible, though less preferred, in Romanian). Note that crucially, unlike previous proposals (e.g., Dobrovie-Sorin et al. 2006 for Romanian), we argue for a unified meaning of English BPs, Romanian BPs, and French BParts in that they all involve reference to kinds.

References


