

Bare nominals in French and Romanian*

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Note: In this talk we will only discuss bare *plural* nominals, specifically, Romanian Bare Plurals and French Bare Partitives.

Introduction

★ The distribution and interpretation of Bare Plurals (BPs) is known to vary across languages (Chierchia 1998, Dayal 2004, 2011, Yang 2001, a.o.).

★ While grammatical in English, (1-a), in Romance BPs either have a more limited distribution or they are altogether not allowed, as in French (1-b).

- (1) a. (i) Kids came by us. *English*
(ii) I ate cookies with my milk.
- b. (i) *Enfants sont venus chez nous. *French*
kids are come at us
- (ii) *J'ai mangé biscuits dans mon lait.
I.have eaten cookies in my milk

★ Even when acceptable, BPs across Romance do not all allow all the readings that English BPs do, namely, the kind reading, the universal reading, and the existential reading with obligatory narrow scope (see Longobardi 2001 for Italian, McNally 2004 for Spanish, Dobrovie-Sorin, Bleam, and Espinal 2006 for Romanian, a.o.).

★ How do we account for the variation in interpretation of Bare Plurals across languages? What is the source of variation?

In this talk:

★ We will explore the landscape of variation between English and Romance, specifically focusing on the interpretations of Romanian Bare Plurals and French Bare Partitives (e.g., *des chiens* 'of.the dogs'). The reason we include French Bare Partitives in a discussion of Bare Plurals is because not only do French Bare Partitives behave the same as Romanian Bare Plurals but they may also give us a clue as to what is going on with Romanian (and possibly Romance at large) Bare Plurals.

★ We will propose a unified account that captures the behavior of both English BPs, on the one hand, and Romanian BPs and French BParts, on the other.

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1 Romanian BPs and French BParts differ from English BPs in the same way

- ★ As already mentioned, French doesn't allow bare plurals.¹
- ★ French plurals need to be introduced by a complex determiner that is derived from the contraction of the preposition *de* ('of') with the definite article. Following Chierchia (1997), we will call these *des*-NPs constructions Bare Partitives (BParts).

- (2) a. *J'ai mangé biscuits dans mon lait. *French*
 I.have eaten cookies in my milk
- b. J'ai mangé **des** biscuits dans mon lait.
 I.have eaten of+the cookies in my milk
 'I have eaten cookies in my milk.'

★ We will show that French BParts behave the same as Romanian BPs (Dobrovie-Sorin et al. 2006 for Romanian, Roy 2001 for French, a.o.). Specifically, they both differ from English BPs in the same way in that they only allow the existential interpretation with obligatory narrow scope.

★ 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.

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

Context 1 (Kind reading): Alice is lecturing about various animal species and their current conservation status. She says: Platypuses are least endangered; however,

Context 2 (Subkind reading): Alice is lecturing about various animal sub-species and their current conservation status. She says: The common hippo and the pigmy hippo are on the verge of extinction;

- a. ✓ **Kind reading**
 Bears are on the verge of extinction. *English*
- b. ✓ **∃-Subkind reading** / ***Kind reading**
- (i) Urși sunt pe cale de dispariție. *Romanian*
 bears are on verge of extinction
- (ii) Des ours sont en voie d'extinction. *French*
 of.the bears are on.the verge of.extinction

★ Furthermore, Romanian BPs and French BParts never yield the generic interpretations allowed by English BPs.

(4) **Generic contexts:**

Context: Alice is describing the characteristic vocalizations of various species. She says: Typically, cows moo, cats meow,

- a. ✓ **Universal reading**
 Dogs bark. *English*

¹One construction that seems to escape this restriction is the coordination structure. The following example shows that French BPs can be coordinated. See Heycock & Zamparelli 2003, a.o., for details about this particular construction.

- (i) Chiens et chats avaient tous l'air très sale. (Heycock & Zamparelli 2003: 5)
 dogs and cats have all the.appearance very dirty
 'Dogs and cats all look very dirty.'

b. \checkmark **Existential reading/ *Universal reading**

- (i) Căini latră. *Romanian*
dogs bark
- (ii) Des chiens aboient. *French*
of+the dogs bark

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

(5) a. \checkmark **Kind reading**

- (i) Urșii 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. \checkmark **Generic reading**

- (i) Căinii latră. *Romanian*
dogs.the bark
- (ii) Les chiens aboient. *French*
the dogs bark

★ Nevertheless, Romanian BPs and French BParts share important properties with BPs in other languages. In particular, they are interpreted as indefinites in episodic contexts (6).

(6) **Episodic contexts:**

Context: Over the past few days Leo has been meeting representatives of various occupations. Two days ago he met dentists,

a. \checkmark **Existential reading**

- a. Yesterday, Leo met firemen. *English*
- b. Ieri, Leo a întâlnit pompieri. *Romanian*
yesterday Leo 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 (7).

(7) **Scopelessness:**

- a. **Narrow scope:** $\checkmark \neg > \text{BP}, * \text{BP} > \neg$
- (i) Leo didn't meet firemen. *English*
- (ii) Leo nu a întâlnit pompieri. *Romanian*
Leo not has met firemen
- (iii) Léo n'a pas rencontré de pompiers. *French*
Leo NE.has not met of firemen

- b. **Differentiated scope:** ✓Adv > BP, *BP > Adv
- (i) Leo killed rabbits for three hours. *English*
- (ii) Leo a omorât iepuri timp de trei ore. *Romanian*
Leo has killed rabbits time of three hours
- (iii) Léo a tué des lapins pendant trois heures. *French*
Leo has killed of.the rabbits during three hours
- c. **Opacity:** ✓want > BP, *BP > want
- (i) Leo wants to meet firemen. *English*
- (ii) Leo vrea să întâlnească pompieri. *Romanian*
Leo wants to meet firemen
- (iii) Léo veut rencontrer des pompiers. *French*
Leo wants meet of.the firemen

★ To summarize, Romanian BPs and French BParts only share the existential interpretation with obligatory narrow scope with English BPs.

	Kind	Generic	Episodic	Scope wrt QPs
English BPs	✓	✓	∃	Narrow scope
Romanian BPs and French BParts	*	*	∃	Narrow scope

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

★ A theory of BPs crucially needs to capture that:

1. All BPs (and French BParts) take obligatorily narrow scope with respect to other scope taking expressions such as negation or *for*-adverbials.
2. Unlike English BPs, Romanian BPs and French BParts cannot denote kinds nor can they occur in the scope of a generic operator.

2 A Neocarlsonian approach to English BPs in quantificational event semantics

The idea in a nutshell:

- ★ To capture the three primary readings of English BPs, we will assume that BPs denote kinds. Because they are kinds, they do not combine with non-kind-selecting predicates the way other arguments do (Chierchia 1998). In particular, BPs are fed via *Derived Kind Predication* that introduces existential quantification over instances of a kind.
- ★ This neocarlsonian approach of BPs will be couched in quantificational event semantics.
- ★ Why event semantics? It provides a way to analyze temporal adverbial phrases such as *for*-phrases (7-b).
- ★ Why quantificational event semantics? It has a better empirical coverage than previous proposals of event semantics.

★ Neocarlsonian = we assume that bare plurals denote kinds (Carlson 1977). More specifically, following Chierchia (1998), we assume bare plurals are type $\langle s, e \rangle$, formed via $^{\cap}$ ‘Down’, a typeshifter that converts a property into a kind, (8). Another typeshifter $^{\cup}$ ‘Up’ takes us back from a kind to instances of it, (9). When a verb is non-kind-selecting but its argument is a kind, an operation called ‘Derived Kind Predication’ (DKP) kicks in, providing existential quantification over instances of the kind, (10).

$$(8) \quad \text{a. Down, } ^{\cap}: \lambda P_{\langle s, e, t \rangle} . \lambda w_s . \iota P(w) \\ \text{b. } \llbracket \text{dogs} \rrbracket = ^{\cap} \text{dogs} = \lambda w_s . [\iota \text{dogs}(w)]$$

$$(9) \quad \text{a. Up, } ^{\cup}: \lambda d_{\langle s, e \rangle} . \lambda w_s . \lambda x_e . [x \leq d(w)] \\ \text{b. } ^{\cup} (^{\cap} \text{dogs}) = \lambda w_s . \lambda x_e . [x \leq ^{\cap} \text{dogs}(w)]$$

(10) Derived Kind Predication:

If P applies to ordinary individuals and k denotes a kind, then $P(k) = \exists x [^{\cup} k(x) \wedge P(x)]$. (to be modified)

★ Quantificational event semantics = we assume that verbs are generalized quantifiers over events (Champollion 2015), (11). Thematic roles are introduced into the derivation via applicative heads, (12). Once all the syntactic arguments of the verb have been introduced, a closure operator brings us back to a truth value, (13). See (14).

$$(11) \quad \llbracket \text{see} \rrbracket = \lambda f_{\langle v, t \rangle} . \exists e [\text{see}(e) \wedge f(e)]$$

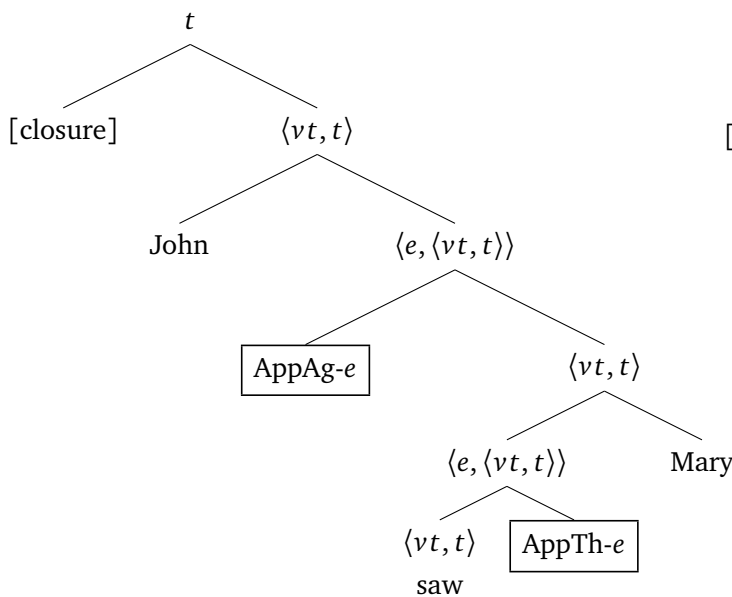
$$(12) \quad \llbracket \text{AppAg/Th-e} \rrbracket = \lambda V_{\langle vt, t \rangle} . \lambda x_e . \lambda f_{\langle v, t \rangle} . V(\lambda e_v . [f(e) \wedge \text{Ag/Th}(e) = x])$$

$$(13) \quad \llbracket [\text{closure}] \rrbracket = \lambda e_v . \text{true}$$

★ **Proposal 1:** For a kind-selecting predicate the applicative head creates an argument slot type $\langle s, e \rangle$. This gives us the kind reading, (15).

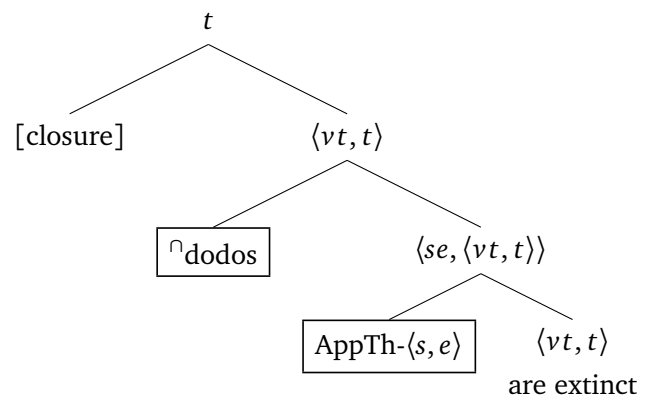
Arguments type e

(14) John saw Mary.



Arguments type $\langle s, e \rangle$ and kind-selecting predicates (the kind reading)

(15) Dodos are extinct.



When an argument is of type $\langle s, e \rangle$ and the verb is non-kind-selecting:

★ **Proposal 2:** in generic contexts, the mismatch can be repaired by movement of the kind-type argument into the restriction of the genericity operator Gn, (16). Gn acts like a modal universal quantifier, providing universal quantification over instances of the kind. Just like App before, it is type flexible and may take arguments of type $\langle s, e \rangle$ too. This gives us **the universal reading**, (18).

$$(16) \quad \llbracket \text{Gn} \rrbracket = \lambda P_{\langle e, t \rangle} . \lambda y_{\langle s, e \rangle} . \forall z \forall w \forall e [\text{Acc}_{w_0}(w) \wedge \cup y(z) \wedge C_w(z)(e) \rightarrow P(z)]$$

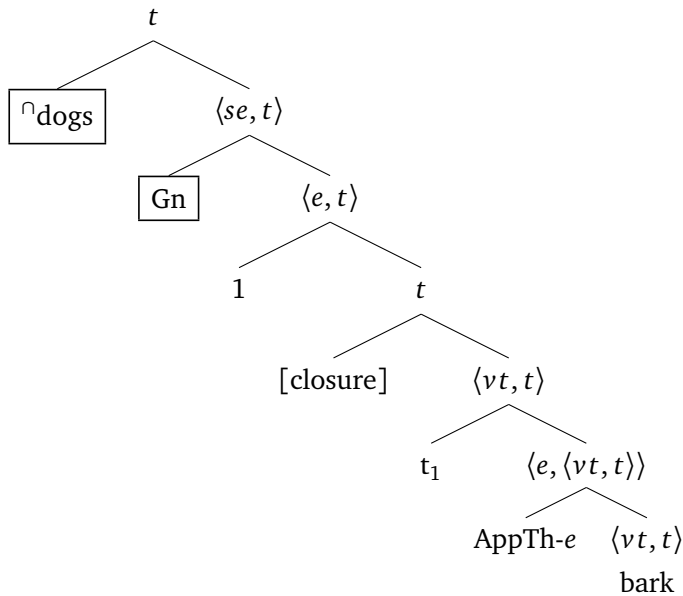
‘For every z which is an instantiation of the dog-kind, in every accessible world w in which there is a going around event by z , ...’

★ **Proposal 3:** in episodic contexts, the mismatch can be repaired locally via a version of DKP. In English, DKP is realized as yet another type of applicative head, App_{DKP} , (17), performing the same function of creating an argument slot for the verb but also providing existential quantification over instances of the kind argument. This gives us **the existential reading**, (19). If we additionally assume that negation or *for*-adverbials are introduced only at vP level, we also capture why BPs always take scope below them.

$$(17) \quad \llbracket \text{App}_{DKP} \rrbracket = \lambda V_{\langle vt, t \rangle} . \lambda x_{\langle s, e \rangle} . \lambda f_{\langle vt, t \rangle} . \exists z [\cup x(z) \wedge V(\lambda e_v . [f(e) \wedge \text{Ag}/\text{Th}(e) = z])]$$

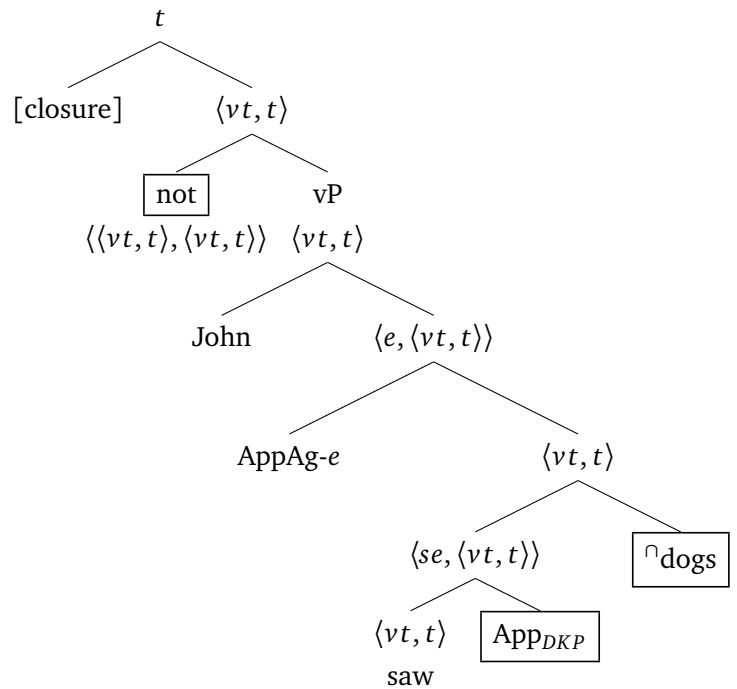
Arguments type $\langle s, e \rangle$ and non-kind-selecting predicates in generic contexts (the universal reading)

$$(18) \quad \text{Dogs bark.} \\ \forall z \forall w \forall e [\text{Acc}_{w_0}(w) \wedge \cup^n \text{dogs}(z) \wedge C_w(e)(z) \rightarrow \\ \exists e [\text{bark}(e) \wedge \text{Ag}(e) = z]]$$



Arguments type $\langle s, e \rangle$ and non-kind-selecting predicates in episodic contexts (the existential reading)

$$(19) \quad \text{John didn't see dogs.} \\ \neg \exists z [\cup^n x(z) \wedge \exists e [\text{see}(e) \wedge \text{Ag}(e) = j \wedge \text{Th}(e) = z]]$$



★ To conclude, we have blended a neocarlsonian approach to BPs with quantificational semantics. Our approach captures all the readings of English BPs: the kind reading, the generic reading, and the existential reading with obligatory narrow scope. In the next section we present our proposal for French and Romanian.

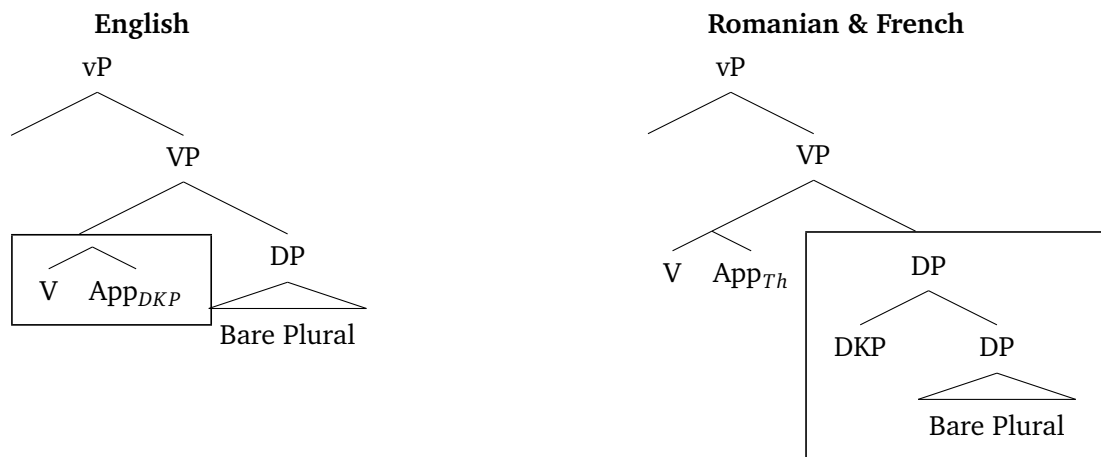
3 A unified account of Romanian BPs and French BParts

- ★ The above proposal predicts that BPs across languages should all allow the readings that English BPs have.
- ★ 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.

	Kind	Generic	Episodic	Scope wrt QPs
English BPs	✓	✓	∃	Narrow scope
Romanian BPs and French BParts	*	*	∃	Narrow scope

Table 2: Different interpretations English BPs, Romanian BPs, and French BParts

Proposal: While in English the existential quantification over instances of a kind (i.e. DKP) is built into applicative heads and therefore applies to verbs, in Romanian and French DKP combines with the kind-denoting DPs.



- ★ To illustrate, consider the following example which has the structure in Figure 1.

(20) Pisici fugăreau câini. Romanian
 Des chats chassaient des chiens. French
 ‘Cats chased dogs.’

- ★ French and Romanian NPs combine with the ‘Down’ operator, \sqcap , to refer to kinds. While \sqcap is not pronounced in Romanian, it is spelled-out *the* in French (DP₂).
- ★ Those NPs then combine with DKP, which introduces an existential quantification over instances of a kind (DP₁).

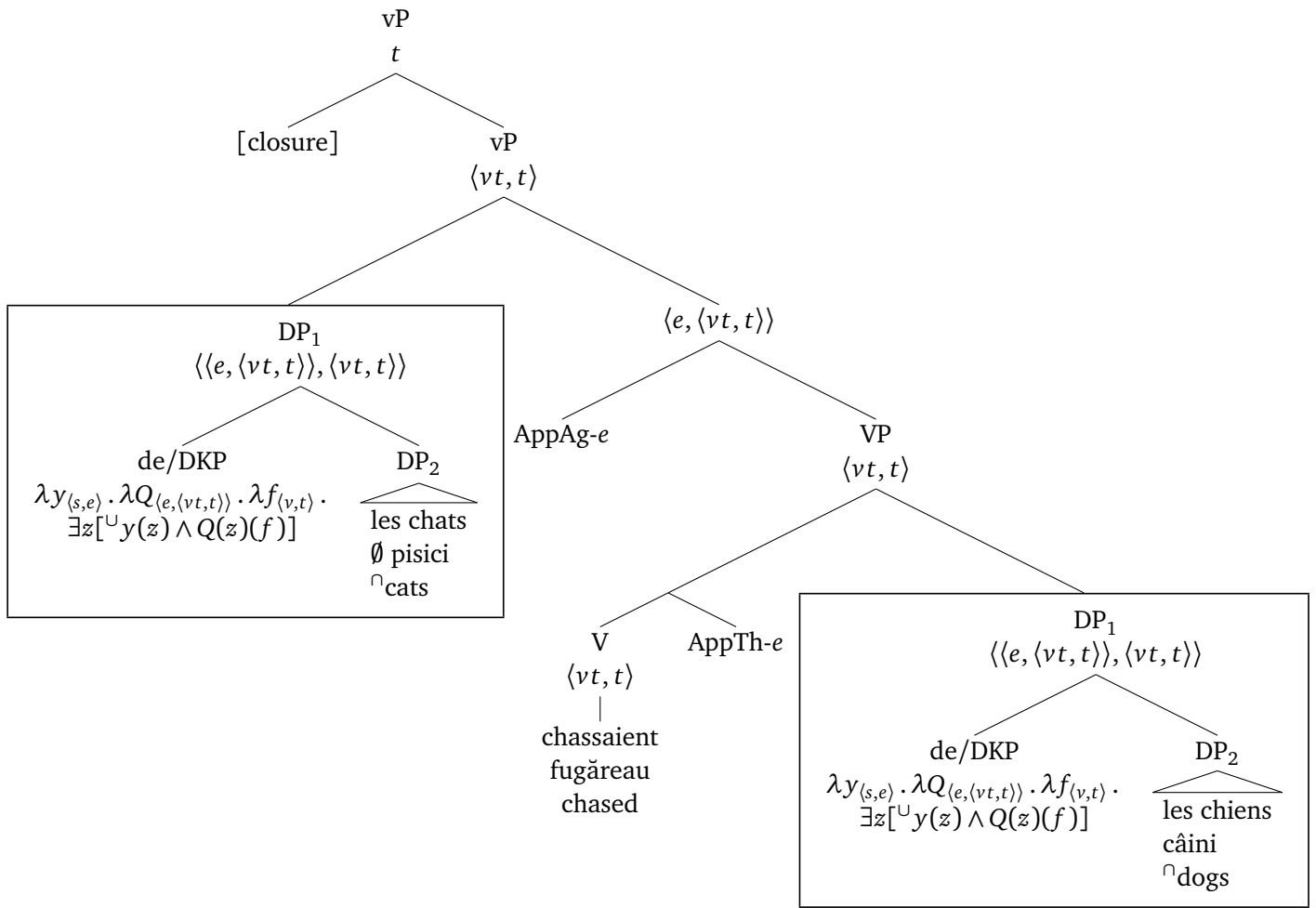


Figure 1: Proposal for Romanian and French - Structure of (20)

★ We now show that the fact that French BParts and Romanian BPs cannot have a kind reading nor can they have a generic reading follows from our proposal.

★ To begin with, (21) shows that Romanian and French do not allow the extraction of a DP out of another DP.

- (21) a. Voi aduce o sticlă de vin. Romanian
 Je vais ramener une bouteille de vin. French
 ‘I will bring a bottle of wine.’
- b. *Ce voi aduce o sticlă de? Romanian
 *Qu’est-ce que je vais ramener une bouteille de? French
 ‘What will I bring a bottle of?’

★ Given that DP₂ cannot be extracted from within DP₁ in Figure (1), we expect the kind reading of Romanian and French NPs to never be accessible.

- ★ Now, recall that (i) to get a kind reading, English BPs denoting kinds combine directly with kind-denoting predicates and (ii) to get a generic reading, English BPs have to move into the restriction of the generic operator.

- (22) a. Dodos are extinct.
 $[\cap \text{dodos} [\text{App}_{Th} \text{ are extinct}]]$
 b. Dogs bark.
 $[\cap \text{dogs Gn 1} [x_1 \text{ bark}]]$

- ★ Under our proposal, since the kind reading of Romanian and French NPs is never accessible, it follows that Romanian BPs and French BParts cannot combine with kind-level predicates nor can they combine with a generic operator.
- ★ Given our proposal, we expect to find languages in which DKP is spelled out. This seems to be the case in Maori, a Polynesian language of New Zealand. DPs introduced by the indefinite determiner *he* could be analyzed in the same way as Romanian BPs and French BParts (cf. Chung&Ladusaw 2004 for more details about Maori *he*).

- (23) *he tangata*
 DET person
 $[_{DP} \text{ he/DKP} [_{DP} \cap [_{NP} \text{ tangata}]]]$

- ★ To conclude,
 - ★ We combined a neocarlsonian approach to English BPs (Chierchia 1998) and quantificational event semantics (Champollion 2015) to capture the various readings that BPs can have (the kind reading, the generic reading, and the existential reading that displays obligatory narrow scope).
 - ★ We proposed that the difference between English BPs, on the one hand, and Romanian BPs and French BParts, on the other, follows from where DKP occurs in the structure. Crucially, in French and Romanian, DKP is syntactically projected and directly combines with the bare plural. The reason why Romanian BPs and French BParts cannot denote kinds or combine with a genericity operator follows from a ban on extracting a DP from another DP, in our case, the kind-denoting DP from the DP containing DKP.
 - ★ What is the full landscape of variation across languages? Could an analysis of this sort account for it?