

On Tense, Aspect and Genericity in English and Romanian: Insights from Language Acquisition

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Abstract

This paper offers a contrastive analysis of English and Romanian generic sentences, arguing that generics originate from a simple conceptual structure. We argue that the comprehension and production of generics require no functional structure, but rather merely the comprehension of lexical aspect in its simplest form, namely states. While English distinguishes generics from episodics via the progressive, Romanian’s imperfective lacks this distinction. Additionally, cross-linguistic variation is evident in the semantics of definite articles. English definite articles encode familiarity and maximality, aligning with constraints on kind reference, while Romanian articles, marked with phi-features, encode maximality and treat familiarity as an optional pragmatic feature. The paper also argues that there are good grounds to give up the covert Gen(eric) operator.

Keywords: generic, episodic, aspect, progressive, imperfective, kinds

1. Preliminaries: proposal and aims¹

1.1. The cognitive problem

Generic sentences express regularities about entities (objects and kinds) and about situations. Our study of genericity starts from the observation that the current linguistic scene shows a paradox in the description of generic sentences. Acquisition studies and cognitive studies more generally have proved that, despite their semantic complexity, generic sentences are acquired very early, at an age when it is not the case that children have developed all the functional categories of the languages, more specifically they have not put in place the quantificational system yet. Thus two-year-olds understand generic sentences with more ease and earlier than they can correctly interpret quantifiers and even cardinals.

On the other hand, linguists assign complex semantic representations to generic sentences, starting from the obvious fact that generic sentences make **intensional** statements, which are not descriptions of the world. The truth of *Mary is smoking a cigarette* is not sufficient to establish the truth of *Mary smokes*. Some generics (1), of special interest in this paper, are more complex in that they involve reference to unobservable, but intuitive entities, known as kinds. Still other generics (2) also show an overt quantificational structure, containing a generic adverbial operator, i.e. a functional element with sentence scope.

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|-----|---|-----------------------------------|
| (1) | a. <i>Birds fly.</i> | [kind generic] |
| | b. <i>Mosquitoes are irritating.</i> | |
| (2) | a. <i>Typically, Germans drink beer.</i> | [overt quantificational generics] |
| | b. <i>Generally, Mary prefers apples.</i> | |

In an attempt to give generics a uniform analysis, generic sentences have standardly been analyzed as quantificational structures, with the typical tripartite structure of generalized quantifiers: a sentence operator, a restriction and a nucleus, as in (3). It was and is generally still admitted (cf. Driemel et al. 2025 and references therein) that, when no quantifier is overt, as in sentences (1) above, the logical form (LF) of a generic sentence contains a *silent quantificational adverb*, notated Gen. Gen is a sentential operator, and it is the silent equivalent of quantificational adverbs like *usually, typically, generally, often, many times, as a rule*, etc.

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|-----|--|
| (3) | a. <i>Typically x [Germans (x)] (drink-beer (x))</i> |
| | b. <i>Gen x [dog (x)] (bark (x))</i> |

¹ Abbreviations: BP = bare plural; CL = clitic; DP = determiner phrase; DKP = Derived Kind Predication; DOM = differential object marker; Engl. = English; ILP = individual level predicate; LF = logical form; MTS = Model Theoretic Semantics; PN = proper name; PT = present tense; Ro. = Romanian; SLP = stage level predicate; ET = event time; ST = speech time; RT = reference time (cf. Reichenbach 1947).

Such complex linguistic descriptions seem hard to reconcile with the fact that, in the acquisition process, generic sentences are understood and produced so very early.

Research question 1: *Can one propose a linguistic analysis of generics which should not involve an explicit quantificational structure?*

The answer is affirmative and one of the main goals of the paper is to present such an analysis for the two languages considered in this paper, namely English and Romanian.

1.2. On the history of kind: kinds as proper names (Carlson 1977)

In English, genericity has always been based on Carlson's dissertation (1977). In good American tradition, Carlson starts from an apparently trivial problem, namely, what is the denotation of bare plurals (BPs) in English and, in a brilliant analysis, concludes that they denote kinds, and that kinds are an obligatory item in the ontology of language – a result that has gone unchallenged to date.

Let us briefly recall the steps of his argument. His first observation is that BPs have no corresponding singular, and they cannot be viewed as the plural of the indefinite singular article *a* (as often assumed in traditional grammars), since their logical properties are vastly different. BPs must be interpreted *de dicto*, while indefinites are also interpretable *de re*. In particular, they always have narrower scope than any other operators in the sentence, occurring in contexts which exclude indefinite singulars.

- (4) a. *Minnie wishes to meet a young psychiatrist. (de dicto & de re)*
b. *Minnie wishes to meet young psychiatrists.*
- (5) a. *Dogs are everywhere.*
b. **A dog is everywhere.*

Carlson (1977; 1980: 60) notices that BPs are like PNs, since both denote atomic entities (kinds, persons) and are insensitive to the singular/plural contrasts. Actually, kinds and names are **basic referential expressions**. Moreover, there are contexts reserved for BPs and PNs (6), contexts that exclude DPs (7), i.e. nominals with overt quantifiers.

- (6) a. *Slim is **so-called** because of his slender build.* (PN)
b. *Cardinals are **so-called** because of their color.* (BP)
- (7) a. **Those cardinals*
b. **All cardinals*
c. **Most cardinals*
d. **No cardinals*
e. **The cardinals* } *are **so-called** because of their color.*

On this strength, Carlson concludes that **BPs are proper names of kinds**, and establishes the existence of the two types of generics: kind generics, whose subject is a kind-term, and characterizing generics, whose subject is a PN or some other uniquely identifying term. Both characterizing generics and kind generics clearly make reference to multiple situations, so this parallel strengthened the quantificational analysis, invoking the existence of a covert operator Gen in sentences like (8).

- (8) a. *Dogs run.*
b. *Mary goes to school.*

Kinds are intensional entities, functions on situations, worlds, or tuples of indices. As applied to any index, the kind function yields the extension of the kind at that index. Individuals in the extension of the kind represent **kind-realizations**, called **stages of the individual**. The full identity of the individual is the kind-function. An essential argument supporting the individual vs. stage distinction is that natural languages use lexical and grammatical means for marking the difference between individual-level predicates (ILPs) and stage level predicates (SLPs). Here is a sample of English and Romanian adjectives which illustrate the difference:

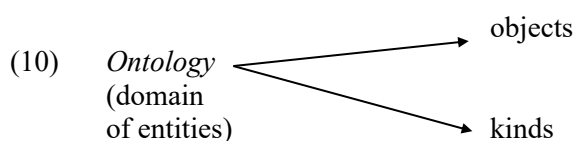
- | | | | |
|-----|---------|--|---|
| (9) | English | ILP
<i>intelligent</i>
<i>blue-eyed</i>
<i>rude</i> | SLP
<i>nervous</i>
<i>afraid</i>
<i>scared</i> |
|-----|---------|--|---|

	<i>hard-working</i>	<i>tired</i>
	<i>fearful</i>	
	<i>polite</i>	
Romanian	<i>înalt</i> ‘tall’	<i>înfricoșat</i> ‘scared’
	<i>deștept</i> ‘smart’	<i>nervos</i> ‘nervous’
	<i>politicos</i> ‘polite’	<i>înfuriat</i> ‘infuriated’
	<i>fricos</i> ‘fearful’	<i>obosit</i> ‘tired’

Starting from a simple linguistic problem – what is the denotation of bare plurals –, Carlson has radically modified the ontology of language and the construction of identities.

With respect to the *ontology of language*, Carlson proposes that entities can be kinds or objects. Kinds denote intensional entities, functions which, in each situation/world, return the extension/realization of the kind in that world. Objects are realizations of kinds i.e. elements in the extension of kinds.

The denotation of kind terms depends on the properties of the predicate. With ILPs, kind terms have kind denotation in generic sentences, with SLPs they denote kind realization (stages of the kind), and the kind term has existential interpretation.



Kinds are perceptually accessible only through their realizations, and, as shown by Carlson (1977) and later by Chierchia (1998), there is a constant semantic relation between kinds and the objects in their extension. Like Carlson, Chierchia examines sentences like (11), and proposes that the relation between kinds and objects obtains by means of a Derived Kind Predication rule, stated in (12):

(11) *Lions are ruining the garden.*

(12) **Derived Kind Predication (DKP)**

(Chierchia 1998: 364)

If P applies to objects and k denotes a kind, then

$P(k) = \exists x [{}^Uk(x) \wedge P(x)]$

Applied to sentence (11), the DKP says that if *ruin the garden* is a kind-level property, and if x is an object in the extension of the property, then that object x *can ruin the/my garden*. The interest of the DKP is that it makes visible the source of the existential quantifier in sentences with SLPs.

The ontology of Carlson’s dissertation has been widely embraced and has been lying at the basis of all discussions of genericity and quantification since 1977.

1.3. The range of English and Romanian generics

Solving the cognitive linguistic problem raised above presupposes a detailed analysis of Romanian and English generics. The table below maps the range of English and Romanian generics, taking into account the realization of their subjects.

The range of generics in English and Romanian (generic subjects)		
	English	Romanian
definite singulars (DPs)	OK <i>The tiger is striped.</i>	OK <i>Tigrul e vârgat.</i> ‘The tiger is striped’
bare plurals (NPs) ²	OK <i>Birds fly.</i>	—
definite plurals (DPs)	—	OK <i>Păsările zboară.</i> ‘Birds fly’

² There is similarity of behavior between plurals of countable nouns (bare plurals) and singulars of uncountable nouns which denote mass terms. Mass terms can also be subjects of generic sentences (*Water flows*, similar to *Dogs bark*). The aforementioned similarity springs from the fact that both denote pluralities in the sense of Quine (1960).

indefinite singulars (DPs)	OK <i>A king is generous.</i>	OK <i>Un rege e generos.</i> 'A king is generous'
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For lack of space, we mostly focus on plural generics and their equivalents following the Carlsonian tradition, leaving other types of generics (e.g. indefinite singulars) for future research.

Comparative investigations of generic sentences should answer at least following questions.

(1) The first question is whether the language establishes the contrast between generic and episodic sentences by functional means.

As to the subject, the table above shows diverse NP or DP realizations of the subject in generic sentences, which raise further questions:

(2) Why is it that the definite article is obligatory in all Romanian generic sentences? Rephrasing the question, why is it that Romanian bare nouns (plurals and uncountables) have existential, but not generic readings?

(3) Why is it that, while English uses the definite article in singular generics, plural definite subjects do not have generic readings (they can't be kind generics)?

(4) Why is the distribution of the definite article different, in spite of the assumed similarity of meaning of the definite article in the two languages? The assumed semantic features of the definite article are maximality (descending from Russell's 1905 uniqueness) and familiarity, a pragmatic property introduced in semantics by Heim (1982) (see also Farkas and de Swart 2007).

Research question 2: *Providing answers to these questions represents the second goal of this paper.*

2. Tripartite generic sentences vs. binary, subject-predicate generics

2.1. Aim and outline of the section

The presentation above has shown that gradually all generic sentences (whether kind or characterizing generics) have come to be analyzed as quantificational, with an overt or covert adverbial quantifier, and the sentence getting a uniform tripartite LF (sentential operator+ restrictor+ nucleus, as in (3)). The sentential quantifier binds situation variables or worlds.

In this section we argue that, while this analysis is adequate whenever a quantifier is overtly expressed, there are good grounds to give up the covert Gen operator, and analyze the remaining generic sentences as binary subject-predicate sentences, or rather Topic-Comment ones, where the subject is a referential term with unique reference, designating a kind or a unique object, and the compatibility with kinds and reference to a plurality of situations follows from the temporal-aspectual properties of generic predicates. We propose that the early acquisition of generics follows from the fact that the comprehension and production of binary generics simply requires the comprehension of lexical aspect.

2.2. The tripartite structure

Acceptance of the tripartite structure arose from two observations about generics. First, for many generics, introducing adverbs of quantification such as *typically*, *generally*, *usually* has little impact on their meanings: (*Usually*), *water is refreshing*. The claim of the tripartite analysis was simply that the adverb is covert, when not overt. Second, in the case of English, a relevant observation was the subject was an NP with no determiner, and "such nouns are ordinarily analyzed as predicates, so they have argument places that need saturation. There is nothing at the level of surface structure that can saturate the argument: surface structure merely provides another predicate of the same order and adicity, e.g. "bark". A natural thought, then, is that generics contain an unpronounced element which saturates the predicate" (Liebesman 2011: 1-2) by variable binding. Hence a generic sentence like *Dogs bark* was assigned the tripartite LF in (13b).

- (13) a. *Dogs bark.*
b. Gen x[*dogs* (x)] [*bark* (x)]

Both *dogs* and *bark* are treated as predicates, whose variables are bound by the generic quantifier.

Further studies like Rimell (2004) or Liebesman (2011) have proposed however that the tripartite analysis should, actually can!, be resorted to only if there is linguistic evidence for it. In this spirit, Rimell (2004) discusses a subclass of generics, namely characterizing sentences. She argues that one can postulate a tripartite analysis only if either the operator or the restrictor, or both are overt, as is the case in (14a). In (14b-c), the presence of the restrictor is sufficient for inferring the adverbial quantifier in the LF of the sentences.

As known, *when*-clauses and *if*-clauses are familiar restrictors of an overt generic quantifier, and the presence of the generic quantifier is not necessary since it can be inferred from the presence of the restriction. Sentence (14d) is an example of a generic sentence where only the adverbial operator is visible.

- (14) a. *Mary generally eats green beans when she is hungry.*
 b. *Mary eats green beans when she is hungry.*
 c. *If hungry, Mary eats green beans.*
 d. *Generally, Mary prefers to shop in open food markets.*

In sum, the generics in (14) illustrate the three-member structure, unlike those in (15) and (16), which have a binary structure. Rimell (2004) concludes that if both the operator and the restrictor are absent, one should not postulate any generic operator; rather, the sentences in (15) have a simple subject-predicate structure. The subject in (15) is the PN of an individual, while as Carlson (1977) initially said, the subject in (16) is the PN of a kind (i.e. ‘boots’) – the subject is kind referring and kinds may inherit properties from their members, in much the same way that ordinary objects inherit properties from their parts. The LF of binary sentences is (15a)/(15a'), with a predicate which should express a definitional property of the subject.

- (15) a. *Mary walks to school.*
 a'. walks to school (m)
 (16) a. *Boots (b) are made for walking (=MFW).*
 a'. MFW (b)

In the following sections, we detail the structure of the so-called simple generics.

3. The theory of simple generics

Semanticists of all persuasions (referential semantics and cognitive semantics) have continued to investigate kinds as ontological entities under different aspects. Some of them are sketched below.

3.1. Reference to kinds

The strongest argument in favor of admitting that kinds have reference is the discovery by Carlson of *kind-level predicates*, i.e. predicates that can have only kind-level subjects. Frequently quoted examples include: *widespread*, *rare*, *frequent*, *become extinct*, *grow bigger*, etc. as seen below:

- (17) a. *The dodo is extinct.*
 b. *Wolves grow bigger as we go north.*
 c. *White tigers are rare.*
 d. *Water runs down, not up.*

It is obvious that none of these predicates can be true of individual objects in the extension of the predicate. Rather, only the kind itself answers the selectional demands of the verb. On the other hand, as already suggested, ILPs are also compatible with kinds, so they should also be considered kind-level predicates. This is apparent in the possibility of coordinating ILPs and kind selecting predicates (18), admitting that coordination requires sameness of semantic types. Liebesman (2011) argues that generics with BP subjects should be treated *uniformly*.

- (18) a. *Mosquitoes are widespread.*
 b. *Mosquitoes are irritating.*
 c. *Mosquitoes are widespread and irritating.*

Example (18c) that coordination of a kind selecting predicate and an ILP is possible, so both appear with the same semantic type. Therefore, kind predications uncontroversially have binary and similar LFs.

From the point of view of later theorizing, kind selecting predicates cannot involve a Gen operator, since the subject of a kind selecting predicate cannot be analyzed as a predicate with an open variable. The postulation of Gen is not only undesirable, but impossible.

A second type of evidence that generic subjects denote kinds is that they can be paraphrased in terms of ‘kind-of-entity’.

- (19) a. *Dogs bark.*
 b. *This kind of animal barks.*
 c. *Dogs are running on my lawn.*
 d. *This kind of animal is just running on my lawn.*
- (20) a. *Blue whales are extinct.*
 b. *This kind of whale is extinct.*

3.2. Kinds and properties

While that kinds have object properties is unsurprising, given that they are acquired through generalization (see below), a still open question is which object properties are selected to become kind properties and, quantitatively, which object properties are sufficiently likely to turn into kind properties in generic sentences.

Maintaining an objectivist denotative semantics which accounts for the truth conditions of sentences, the question “becomes one of what corresponds in the mind to the meaning of phrases denoting kinds and phrases denoting their features.” (Carlson 2009: 6). Carlson’s more recent view is that kinds typically represent *labeled concepts*. There are aspects of generic semantics that can plausibly be seen as linked to and shaped by conceptual structures.

In principle, the conceptual connection between kinds and properties should be sufficiently strong to secure the truth of binary (simple) generic sentences. From this perspective, philosophers and psychologists in the tradition of Model Theoretic Semantics (MTS) or in the more recent approach of semantics from a cognitive perspective (Conceptual Semantics), as well as many linguists working independently, have thrown light on different conceptual connections relating kinds and their properties. Following Prasada and Dillingham (2006), Carlson (2009) distinguishes between k-properties and t-properties. K-properties are definitional, meaning that it is not possible for a member not to have its k-properties, as in the examples below. “T-properties”, on the other hand, are merely statistical regularities (examples from Carlson 2009).

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|------|---|--|
| (21) | k-properties (principled)
<i>airplanes have wings</i>
<i>trains travel on tracks</i>
<i>cheetahs run fast</i>
<i>doctors diagnose ailments</i> | t-properties (statistical regularities)
<i>barns are red</i>
<i>cars have radios</i>
<i>dogs wear collars</i>
<i>golfers wear plaid pants</i> |
|------|---|--|

Expectedly, whether some given property is k or t depends on what kind of object it is predicated of. For instance, *redness* said of *barns* is a t-property, while said of *blood* it is a k-property.

K-properties are more stable than t-properties. If for instance, bears ceased hibernating, they’d still be bears, and presumably we would have to invoke some serious climate change to account for loss of a k-property. In contrast, if one noted that bears no longer performed in circuses, no corresponding big change should be assumed, since this is a merely a t-property.

More types of connections between kinds and their properties are discussed in Prasada et al. (2013), throwing light on the (ir)relevance of generally accepted notions that should characterize generics, such as the roles of prevalence, cue validity and normalcy in licensing generics. Prasada et al. (2013: 406) assume that “generic sentences provide a window into our conceptual system”. Specifically, generic sentences reveal the distinct ways in which our conceptual system can represent connections between kinds and properties.

Coming back to k- and t-properties, they show that one way of representing generic knowledge is through principled and statistical connections between kinds and their properties. Prasada et al. (2013: 406) show that principled connections involve three dimensions: an explanatory dimension, a normative dimension, and a statistical dimension. “Principled connections support *formal explanations* whereby a property of an instance of a kind is accounted for by reference to the kind of things it is (e.g., “Fido has four legs *because* he is a dog”). They also license *normative expectations*: we expect that instances of the kind *should* have the properties to which the kind has a principled connection (e.g., “Fido by virtue of being a dog *should* have four legs”). Finally, principled connections ground the expectation that the property will generally be *highly prevalent* (e.g. “*most* dogs have four legs”).” (Prasada et al. 2013: 406). Generic knowledge that involves principled connections to a kind is “represented as aspects of **being that kind of thing**” (Prasada et al. 2013: 406). By contrast, statistical connections involve properties prevalent among instances of a kind, and do not

support formal explanations or normative expectations (*Barns are red/ *A barn is red*³.) (Prasada et al. 2013: 406).

However, two other existing classes of generics do not seem to involve either principled or statistical generalizations. For a generic like *Sharks attack bathers* or *Ducks lay eggs*, it appears that the property can hold for just a limited percentage of the respective kind; nevertheless, the generic will be licensed, i.e. accepted as true by speakers. Leslie (2008: 384) suggests the term *striking property* for examples like those below:

- (22) a. *Sharks attack bathers.*
b. *Pitbulls maul children.*
c. *Mosquitoes carry the West Nile Virus.*

Leslie and Prasada suggest “that striking property generics involve causal connections between the kind and the property, in the sense that the shared nature of the members of the kind causes them to be disposed to have the property in question, whether or not they actually do. [...] such a causal connection between the kind and the property is required for a striking property generic to be accepted” (Prasada et al. 2013: 407). While the cognitive approach has easily integrated striking property generics, the classical quantificational account simply cannot accommodate them.

A second class of generics that does not straightforwardly involve principled or statistical connections is what Leslie (2008) dubs *minority characteristic generics*, illustrated below:

- (23) a. *Ducks lay eggs.*
b. *Lions have manes.*

Minority characteristic generics are similar to generics that involve principled connections as they involve properties that appear to be “part of the nature of the kind” (Leslie et. al 2011). But they entail properties that are manifested by less than half of the instances of the kind (e.g. only fertile mature female ducks lay eggs) (Leslie et. al 2011, Prasada et al. 2013). So, they are licensed even if they lack the attributes of prevalence and normalcy.

Conclusion: a classification of generics on the basis of the properties they predicate

On the basis of the relation between kinds and properties discussed above, there are (at least) 4 types of generic representations for which experimental evidence is available. Generic sentences may rely either on *principled* or *statistical* connections, or on *striking properties* and *minority characteristics*.

3.3. There is no Gen

The ternary representation of binary generics by postulating a covert Gen operator started as an attempt to provide truth conditions for generics on the model of overtly quantified sentences. A quantified sentences like *Every student studies* (Every_x [student (x)] (studies(x)) is true iff every x which is a student studies; by parity of reason, *Students study* was taken to mean something like “Typically, students study”, or, taking into account that generics tolerate exceptions, “(Nearly) all students study”. The common belief about generics was that they express strong, nearly universal generalizations.

The discussion above, based on Leslie’s four-fold classification of generics, convincingly shows that **one cannot properly specify the quantificational force of Gen** (though see Kirkpatrick 2024), because the latter widely varies between universal and weak existential, as observable below.

- (24) a. *Lions have four legs.*
a'. *All lions have four legs.*
b. *Ducks lay eggs.*
b'. *About half of the ducks lay eggs.*
c. *Sharks attack swimmers.*
c'. *Some sharks attack swimmers.*

³ Unavailable as a generic, possible as a descriptive statement (*A barn is red, the other one is green*).

Given the diversity of generic sentences, it cannot be clearly specified what the quantificational force of Gen is in the **same context**, namely the context of a generalized quantifier. Its force varies from universal to types of existential quantification.

As is well known, there are other quantifiers, e.g. such as *any*, which can be either universal or existential. But these values obtain in complementary contexts, so the interpretation of *any* is unambiguous in particular cases. Thus, *any* is an existential quantifier in negative sentences, and a universal free choice item in modal contexts.

- (25) a. *He didn't find any student in the room.*
 a'. $\neg \exists x$ [student (x)] (he found x in the room).
 b. *Anyone could have arrived late last night.*
 b'. Could [any x [x arrived late last night]]
 b''. **Anyone arrived last night.*

Confronted with such data, Liebesman (2011) concludes that Gen cannot be provided with an interpretation, i.e. it is *intractable*, and thus it simply does not exist.

Another assumed benefit of Gen was an argument from *uniformity*: if Gen is adopted, then all generics are tripartite structures. However, this claim is falsified by generics with kind-level predicates. While Gen can bind the variable of ILPs, it cannot do so for kind selecting predicates since one cannot further raise the semantic type of a kind. In such sentences, the kind is treated as PN, i.e. a logical constant, whose semantic type cannot be raised.

A third argument against the existence of Gen is that this operator is not phonologically realized in any of the natural languages studied so far. It is known that all the other semantic operators – and, more generally, all functional categories – are phonologically realized in some languages. Thus, universal absence from surface structure is a powerful argument against postulating a covert category – in this situation, Gen.

3.4 The acquisition of generics - the cognitive view

Semanticians practicing semantics from a cognitive perspective find the acquisition of generics puzzling. As apparent above, generic sentences involve subtle semantic difficulties. In the first place, generics do **not describe situations**, since they are intensional entities. Their subjects refer to kinds, whose members are not directly accessible. They also require properly identifying and accepting generic properties. Linguistically binary generics seldom bear any identifying morphemes. Anyway, English and Romanian BP generics bear no overt markers of genericity.

However, language acquisition studies have proved that generics are acquired quite early on. Children start using generics **by two years of age** (Sneed German 2008). A second puzzle is that generic sentences are acquired significantly earlier than overtly quantified sentences, despite the overt marking of the latter (Gelman 2003, Roeper et al. 2006). Thus, Leslie (2008: 19) remarks that “it is perplexing that children master them [generics] more readily than explicit quantifiers”, a phenomenon that demands an explanation. Leslie’s proposed answer is that generics and overt quantifiers are acquired by different learning strategies.

By definition, generic sentences express generalizations. They are acquired using *inductive* or *ampliative learning*, in other words learning that goes beyond the instance with which one is presented, reasoning that goes from one to many. “Inductive learning is what allows the child to avoid a hot stove after a single burn” (Leslie 2008: 21). Inductive generalization is central for the acquisition of knowledge throughout one’s life. Leslie (2008: 21) assumes that “no theorist would deny that the capacity to generalize – the capacity for inductive learning – is innately given”.

The capacity to generalize can be observed early in life. Graham et al. (2001) found that twelve to fourteenth months old children are willing to generalize non-obvious properties, such as rattling when shaken, generalizing (only) to perceptually similar objects, but not to other objects⁴.

Importantly, this innate disposition is accessible to infants before they have acquired language. A study on nine-months old children (Baldwin et al. 1993), which intended to estimate the effect of language acquisition on inductive learning, remarks that while labeling objects through language aided infants in generalizing to a broader range of objects and to categorize faster, the nine months-old children were already inclined to generalize to the class of perceptually similar objects, even before they could speak.

⁴ In the same vein, it is important to recall that psychologist Frank Keil (1986) observed that, from a very young age, children are aware of the distinction between natural objects and man-made ones (artifacts).

Inductive generalization constitutes “the human mind’s **default manner of generalizing information** from a few instances to many” (Leslie 2008: 21). It is this innately given default mechanism of generalization which underlies the infants’ as well the adults’ comprehension of generic sentences (Leslie 2008: 22). This procedure is also at play in evaluating and **producing** generics. “If a speaker’s knowledge and experience with members of class K leads her default mechanism to generalize the property of being F to that kind, then she will express this with the generic ‘K’s are F’” (Leslie 2008: 22). If this is how generics are grasped, the paradox of acquisition dissolves. If generics are indeed understood in this way, the acquisition paradox is resolved: by the time children encounter generics, they already possess this default mode of generalization.

The only linguistic ability that is required for the comprehension and production of generic sentences is the ability to divide the sentence into a TOPIC and a COMMENT, which is a pragmatic partition, later grammaticalized as a subject-predicate structure. As early as that, however, in agreement with the TOPIC/COMMENT structure, generic sentences require the kind phrase to precede the property, i.e. the word order in generic sentences is typically SV, irrespective of whether the language is SVO (English) or VSO (Romanian) (Cornilescu 2000). A good example of preference for the SV order in generics is Romanian. Thus, in this language, the VS order seems to rule out the generic interpretation and to allow only episodic readings. The SV order, in contrast, accommodates both readings.

- | | | | | |
|------|---|-------------------------------|---------|--------------------|
| (26) | a. <i>Zboară</i>
fly
‘The birds are flying’ | <i>păsărilor</i>
birds.DEF | (Ro.) | (episodic) |
| | b. <i>The birds are flying.</i> | | (Engl.) | |
| (27) | a. <i>Păsările</i>
birds.DEF | <i>zboară.</i>
fly | (Ro.) | (generic/episodic) |
| | b. <i>Birds fly.</i> | | (Engl.) | (generic) |
| | c. <i>Birds are flying.</i> | | | (episodic) |

While generics are acquired through the *default cognitive strategy of the conceptual system*, the comprehension of overt quantifiers requires different cognitive operations, and presupposes the **inhibition/deactivation the default mechanism** (see the studies cited in Leslie 2008). In terms of our discussion so far, overt quantifiers have the different, i.e. ternary, logical structure – quantifier-restrictor-nucleus. When the conceptual system is confronted with the LF of a tripartite structure, it must compute the relation between the restrictor and the nucleus (scope) in a way that is appropriate to the particular overt quantifier in the sentence. The overt quantifiers presumably supply explicit instructions to the evaluating conceptual system.

Some studies propose that there are different degrees of cognitive complexity in acquiring the interpretation of quantifiers; in particular, universal quantifiers (*all, each, every, any*) are assumed to be more ‘difficult’ than existential ones (Geurts 2003)⁵.

Assuming that generics uniquely instantiate the default mode of generalization, whereas alternative generalization strategies rely on inhibitory processing, we are led to predict—and indeed find—distinct empirical outcomes, such as the fact that children process generics with greater ease, the fact that they are more often used in maternal speech. It has also been shown that if faced with a demanding cognitive task like interpreting sentences with *all* and *some* (explicit quantifiers), then, under some circumstances, a young child may fail to implement the more demanding computation and resort to the default one associated with generics (see Hollander et al. 2002). In conclusion the comprehension of generics reflects a more basic process than the comprehension of explicit quantifiers.

3.5 Kinds as maximal sums. Principle C effects. The range of generic interpretations

Under the binary analysis of generics, kinds are referential expressions, specifically PNs of kinds. Since they are lexical, kind-phrases fall under Principle C of Binding Theory, which states that a lexical phrase, as

⁵ The cognitive problem Geurts (2003) puzzles over is the following: while generic sentences are acquired very early, young children have difficulties with processing the universal quantifiers: *all, every, each*. In contrast with universal quantifiers, *some*, and more generally, weak quantifiers trigger adult-like responses from the beginning. Issues with quantificational sentences have been observed in three-year-olds and persist at least up to age 7. From a semantic point of view, the crucial factor is that weak determiners are intersective, thus the quantifier merely expresses the relation between two sets. Strong quantifiers have more complex representation, in particular, they are presuppositional, i.e. their restriction must be non-empty.

opposed to a pronoun, should have no antecedent in any domain. There are examples of sentences, noted by Brugger (1993), and much later analyzed by Husband (2019), that kind-phrases indeed engender Principle C effects. One example is sentence (28c), with the verb *exterminate*, a verb which selects a kind-level object, namely *black panthers* in (28c). An object-level direct object (*John*) is ungrammatical with *exterminate* (28a). The presence in (28c) of the same kind-phrase, *black panthers*, in subject position violates Principle C and produces infelicity (uninterpretability, even ungrammaticality).

- (28) a. **Black panthers exterminated John.*
 b. *Black panthers_j exterminated themselves_j.*
 c. #*Black panthers_j exterminated black panthers_j.*

Sentence (28b), where coreference is correctly expressed by an anaphoric pronoun, observing Principle A of Binding Theory, is well-formed.

This result seems to be contradicted by the examples in (29) apparently identical with (28).

- (29) a. *Highlanders adore highlanders.*
 b. *Women do not know that women are disadvantaged.*

In spite of the two identical lexical phrases, sentences (29) are interpretable. Sentence (29a) could mean that highlanders as a group are very fond of the kind highlanders.

Faced with this serious problem, Husband (2019) proposes that a different representation of kinds is needed, and proposes that BPs denote **maximal sums of subkinds**. This analysis allows two identical lexical phrases to co-occur in the same sentence, provided that they bear different referential indices.

In examples (c) below, there is a clear reading which take reference to two different subkinds, requiring the relevant NPs to have distinct indices (examples from Husband 2019: 4-5).

- (30) a. *Plate tectonics influenced the evolution of birds.*
 b. *Birds_i influenced the evolution of themselves_i.*
 c. *Birds_i influenced the evolution of birds_j.*
 (31) a. *World War II_i invented Americans_j as we currently know them.*
 b. *Americans_j invented themselves_j as we currently know them.*
 c. *Americans_{j/*j} invented Americans_j as we currently know them.*

Thus, there is another way of conceptualizing kinds, by making reference to subkinds. BP generics denote maximal sums of subkinds.

- (32) a. Kind reference [DP *dinosaurs*^{kind}
 b. Subkind reference [DP *dinosaurs*^{subkind}

Husband's analysis contributes to the theory of kinds in more than one way. First, in English studies, he is the first to propose a **compositional analysis** of BPs. In his analysis, the plural marker *-s* is present because the NP denotes a plurality, a sum of subkinds, and, moreover, a maximal sum. Saying, as Carlson did, that plural nouns are PNs was rather counterintuitive.

Importantly, given that the exact number of subkinds is not asserted, it is possible for the BPs in sentences (33) to refer to a **maximal group of subkinds of tiger**, i.e. to **the kind itself**. Husband thus comments that sentences (33) with BPs seem to be truth-conditionally equivalent to sentences (34), where the definite singular subjects or objects undoubtedly make direct reference to the kind atomic entity.

- (33) a. ***Tigers** are threatened with extinction.*
 b. *Ed Roberts invented **computers**.*
 c. ***Mammals** evolved to live on land.*
 (34) a. ***The tiger** is threatened with extinction.*
 b. *Ed Roberts invented **the computer**.*
 c. ***The mammal** evolved to live on land.*

However, *tigers* need not refer maximally; any sufficiently representative set of subkinds would satisfy the truth-conditions of (33), thereby distinguishing the subkind interpretation from the (unique) kind reading

available in (34). Husband implicitly suggests the possibility that BPs, and thus generic subjects/objects, denote only subkinds, constructing kinds as sums of subkinds with maximal reference.

Many other linguists, working on languages other than English, also noticed that generic subjects and objects may also denote subkinds (e.g. Krifka 1995, Dobrovie-Sorin and Laca 1999, 2003, Beyssade 2005 among others), but did not develop the subkind interpretation into a more general theory of kinds. Nor did they consider Principle C effects. Husband's analysis is more flexible and can accommodate a variety of generics, as well as quantificational sentences. For example, in English, a subkind interpretation is readily available for numerals, indefinites and quantified nominals (35):

- (35) a. *Two tigers are threatened with extinction.*
 b. *Ed Roberts invented a computer.*
 c. *Most mammals evolved to live on land.*

Such nominals clearly cannot receive a kind interpretation and the subkind reading stands out⁶.

The intensive study of kinds by linguists enriched the inventory of generic readings. To conclude this section we mention two more generic readings.

(i) *The quasi-universal reading*

Dobrovie-Sorin and Laca (1999, 2003) have enriched the analysis of English BPs with the “quasi-universal readings”, more exactly to cases where the maximal sum denoted by the BP is “restricted by the discourse contexts”, resulting in a quasi-universal reading.

- (36) a. *We're at the end of the term. Students are exhausted.*
 b. *It hadn't rained for three months. Farmers were worried and speculators were happy at the prospect of rising food prices.*

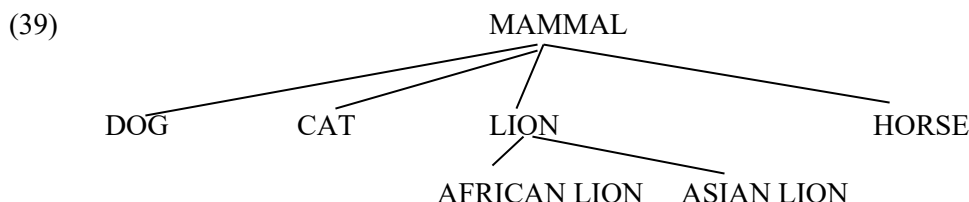
Given their context dependence, and the non-definitional property attributed to the subjects, these sentences are likely to express statistical regularities.

(ii) *The taxonomic reading*

Taxonomic readings are illustrated by sentences (37) as different from (38):

- (37) a. *Lions are felines.*
 b. *Whales are mammals.*
 (38) a. *Kitty is a feline.*
 b. *Spot is a dog.*

To deal with this problem, Dayal (2004) proposes that there is an ambiguity in common noun denotations with regard to whether they denote in the regular domain of individuals, as in sentences (38), or in a taxonomic domain, which is like a plurality of categorial hierarchies (see (39)), which may interrelate. Taxonomic sentences like those in (37) are precisely based such hierarchies. Taxonomic hierarchies are set on the basis of the essential properties of the kind and do not countenance accidental properties of kind-realizing objects.



4. The linguistic perspective

The presentation above has shown that, from a cognitive semantics perspective, as well as from the point of view of MTS, generic sentences look alike in UG, while, in section 1, several striking differences between English and Romanian have come to light. Given this, there are two problems to solve.

⁶ The distinct indices in (30)-(31) are meant to say that the subkinds referred to by the first and the second bare plurals are referentially distinct, but “there are many formal ways to be distinct” (Husband 2019: 8). Distinct may denote complete disjointness, or it may simply indicate a lack of full overlap.

(i) What is the state of the linguistic system at the time when the first generics are produced, a stage which should be similar cross-linguistically, and should be the linguistic counterpart of the default mode of generalization of the conceptual system?

(ii) The second relevant question is what linguistic properties of English and Romanian account for the differences in the structure of the sentence patterns that have generic interpretations.

4.1. Early generics and lexical aspect

Under the cognitive approach, the comprehension of early generics is based on the default manner of generalization of the conceptual system, which requires that the two lexical constituents, the nominal and the verbal one, should simply be associated with the concepts they denote.

In the analysis we propose, we claim that in early generic sentences, verbs are interpreted as *lexical states* (cf. also Ralston 2024). We have adopted the so-called Aristotle-Dowty-Vendler (Dowty 1979, Vendler 1967) classification, according to which predicates are divided into states (*to love, to be tall*), accomplishments (*to eat an apple*), achievements (*to reach the top, to find the book*), and activities (*to run, to work*).

Stative verbs are felicitous in the Present Tense (PT) in adult English and Romanian, and sentences like (40) mean that a certain state holds of the subject at Speech Time (ST).

- (40) a. *John loves Mary.* (Engl.)
 b. *Ion o iubeste pe Maria.* (Ro.)
 John her.CL loves DOM Mary
 ‘John loves Mary’

The acquisition of generics does not require the acquisition of Tense. Stativity of the predicate is sufficient for genericity. An important property of generic sentences is that they are *atelic*. Hence the discussion below focuses on the two atelic verb classes, namely states and activities, hoping to demonstrate that only lexical states accommodate generic interpretations. The framework of discussion is that of a mereological logic, starting from the idea that lexical aspect deals with the internal temporal constituency of predicates.

In this framework, even if states and activities share some properties, there are also important differences. On the similarity side, both states and activities are *cumulative*, a cross-categorical property, defined as early as Quine (1960), that holds in the nominal as well as in the verbal domain.

- (41) a. $\text{CUMULATIVE}(P) =_{\text{def}} \forall x, y [P(x) \wedge P(y) \rightarrow P(x \oplus y)]$ (Quine 1960)
 b. $\text{CUMULATIVE}(P) =_{\text{def}} \forall e, e' [P(e) \wedge P(e') \rightarrow P(e \oplus e')]$

A predicate *P* is cumulative iff it holds of two entities, it also holds of their sum. Cumulativity is a defining property of atelic verbal predicates, and also of mass nominals and plurals. Thus, the sum of two stretches of *walking* is another stretch of *walking*, etc. Also, for states like *two years of being happy* added to another *three years of happiness* may produce a total of *five years of happiness* in a person’s life.

While states and activities are both cumulative, they differ with respect to *divisibility*, another important, but controversial cross-categorical predicate property, for which Krika and Champollion (2016) among others propose the following definition:

- (42) $\text{DIVISIBLE}(P) // \text{DIVISIVE}(P) =_{\text{def}} \forall e [P(e) \rightarrow \forall e' [e' < e \rightarrow P(e')]]$
 A predicate *P* is divisive iff whenever it holds of something, it also holds of each of its proper parts (this is the downward closure property).
 “<” the proper part relation $\forall x, y \in U [x < y \leftrightarrow x \leq y \wedge x \neq y]$
 “≤” the part relation: $\forall x, y \in U [x \leq y \leftrightarrow x \oplus y = y]$
 “⊕” the binary sum operation, it is a function from $U \times U$ to U , idempotent, commutative and associative.

Cumulativity and divisibility stand in a dual relation to each other; cumulative reference “looks upward” from the parts to the whole, whereas divisive reference “looks downward” from the sum to the parts (Champollion and Krifka 2016).

Importantly, it has been settled that divisibility does not actually hold for activities, but only for states. The same is true about the “subinterval property”, proposed in Bennett and Partee (1978), for both states and activities:

- (43) “Subinterval property
Subinterval verb phrases have the property that if they are the main verb phrase of a sentence which is true at some interval of time I, then the sentence is true at every subinterval of I including every moment of time in I.”

(Bennett and Partee 1978:72)

States verify divisibility without any constraint. If a state predicate is true of any individual at a given interval, it will also be true at *all* subintervals, including moments of time (Bach 1981).

Let us see that activities do not satisfy divisibility. As Filip (2020: 31) shows, “[i]f an activity predicate is true of its argument at a given interval, it will not be true at *any* subinterval or *any* moment of time”. Consider the activity verbs *walk*, *run*, *talk*, or *stroll*. If we consider only one instant contained in some interval of x’s *walking*, the verb *walk* will not hold for x at that single moment. “Imagine seeing one frozen frame from a video clip showing a person lifting one foot: you would not be able to judge whether that person is walking, running, strolling, and the like, or simply lifting one foot. What qualifies as being describable by *walk*, *run*, *stroll*, or *jog*, for instance, takes up a certain minimal interval of time. This means that if an activity predicate holds for its argument at a given interval, it will not hold at any single moment of that interval, but rather at some «sufficiently large» subinterval. But just what is «sufficiently large» to count as walking or running, what is the lower limit on such an interval, depends on a particular activity predicate and its context of use as well as world knowledge, and cannot be specified once and for all for any given predicate. This is the essence of the *minimal-parts problem* raised by activities.” (Filip 2020: 31).

An important property of predicates is *homogeneity*: a predicate is homogenous if it is both cumulative and subdivisible. It follows from the discussion above that only states are homogenous, while activities are not.

Concluding, with respect to lexical aspect, there is a clear difference between states, which are *homogenous* (cumulative and divisible), and activities, which are *not* homogeneous (cumulative only).

Let us consider now the contribution of lexical aspect to genericity. Apart from homogeneity, states also have another relevant property: **they are true at any instant of the predicate**. Thus, given a sentence like *Bob has blue eyes*, the sentence is true at any moment of the open-ended interval which is denoted the state, an intuitive result. Likewise, a generic sentence like *The child goes to school* can be evaluated at any one instant of the open-ended interval which represents the state. A multiplicity of instantiations of one or several generic sentences will thus be true within the state predication. Therefore, the multiplicity of events invoked by generic sentences is the result of homogeneity and the open-ended interval associated with lexical states, and does not need to be the result of adverbial quantification.

Lexical states also permit the understanding of kinds. At any moment of time T and at any location L, a generic sentence like *Dogs bark* will be made true by (usually) different members of the kind K. Thus, kinds appear to be time-location functions on the temporal interval denoted by the lexical state. Once again, kinds are intensional entities and any instantiation of the kind will function as a truth-maker for the generic sentence.

In the analysis that we have proposed, the understanding and production of early generics requires nothing beyond pairing words and concepts, and grasping the concepts. As apparent, the subinterval property, conferred by divisibility, creates reference to multiple events, producing an effect similar to the Gen operator. Chierchia (1995) as well as Giorgi and Pianesi (1997) also analyze states as internally/lexically quantified.

Early generics require *no functional structure*, and this is why generics are understood and produced so early.

4.2 Generic Predicates: tense and aspect

4.2.1 The Present Tense puzzle

As is well known, there is a sharp difference between English and Romanian regarding the Present Tense (PT). In Romanian, the PT has perfective and imperfective uses (44), therefore, its occurrence in generic sentences is not surprising. It is simply an instance of the imperfective present.

- (44) a. *Maria mănâncă o banană la micul dejun.* (Ro.) [-perf, +present]
‘Mary is eating a banana at breakfast.’

- b. *Câinii latră.* [-perf]
 ‘Dogs bark.’
 c. *Maria deschide frigiderul, scoate o banană și o mănâncă.* [+perf, historic, narrative]
 ‘Mary opens the fridge, takes out a banana and eats it.’
 d. *Examenele încep/au loc luni.* [+perf, futurate]
 ‘Exams start/take place on Monday.’

The distribution of the perfectivity feature is easy to understand. The Romanian PT is imperfective when it has present reading, i.e. speech time (ST) = reference time (RT), in sentences (44a-b). In contrast, the PT is perfective when ST≠RT (44c-d).

Importantly, both of the imperfective sentences (44a-b) are ambiguous between an episodic and a generic reading. Compare the pair below:

- (45) a. *Ai mare grijă! **Câinii latră** și-i vor trezi pe stăpâni.* (Ro.) (episodic)
 ‘Take good care! The dogs are barking and will wake up the masters’
 b. *Ai mare grijă! S-ar putea să fie câini în curte și **câinii latră**.* (generic)
 ‘Take good care! There may be dogs in the yard and dogs bark.’

In sum, Romanian imperfectivity is not sufficient to distinguish generic from episodic sentences.

4.2.2. On the English Present Tense

In contrast to Romanian, the English (simple) present is known (e.g. Giorgi and Pianesi 1997) to always be perfective, whence the need to use the present progressive in sentences where an event unfolds at utterance time.

- (46) a. **Mary eats a banana now.* [+perf]
 a'. *Mary is eating a banana now.* [-perf]
 b. *Mary opens the fridge, takes out a banana and eats it.* [+perf]
 c. *The exhibition closes tomorrow.* [+perf]

Sentence (46a) refers to an event unfolding at utterance time; the simple present cannot have this interpretation. (46b) is a narrative discourse using a historic present; events have to be interpreted in sequence, they have perfective meaning. In (46c), the present has a non-present, future interpretation. Just as in Romanian, the [+perf] feature is suitable whenever RT≠ST.

Giorgi and Pianesi (1997: 163-169) explain that perfectivity of the PT is a late effect of the leveling of inflections in English. English verbs come to be bare stems and there is a considerable amount of N-V homonymy, in pairs like [V walk], [N walk]. At the same time, the categorial features +N, +V are interpretable at LF (Chomsky 1995) and should be specified when the lexical item enters a derivation. This means that verbs and nouns should be recognizable as such. Giorgi and Pianesi (1997: 163-169) hypothesize that in the absence of any agreement morphology (person, number), “the only way for the verb to acquire the categorial features is by means of its association with an aspectual feature. The category aspect contributes the feature [+perf]”. The result is that English eventive predicates denote closed events, which cannot be simultaneous with ST. The inherent perfectivity of the English verb is apparent in pairs like the following, where the bare verb clearly denotes a bounded interval.

- (47) a. *John saw Mary eat an apple.*
 b. *John saw Mary eating an apple.*

The perfectivity of the English present does not prevent it from being standardly and preferentially used in generic sentences. Under the analysis we have adopted, where there is no covert generic operator, the only option for genericity in the present is to propose that in generic sentences, the VP of a generic sentence turns into *state* by *recategorization of its lexical aspect*, before the VP combines with Tense. Thus, English present generics are always states, basic or derived. The simple present is actually the standard form of genericity, with kind-level generics (48a) as well as characterizing generics (48b).

- (48) a. *Dogs bark.* (kind generic)

- b. *Steve goes to college.* (characterizing generics)

In contrast, the English Past is transparent, allowing the lexical aspect feature of the VP to go through. As a result, the Past Tense can be episodic or generic, with the generic reading being stativized, as the case is for the PT.

- (49) a. *Tom went to school this morning.*
 b. *At the time, boys and girls didn't go to the same school.*
 c. *The milkman called on Sunday.* (generic or episodic)

The ambiguity of the Past Tense can be removed in context, but also by using the specific genericity marker *used to*, restricted to the past sphere.

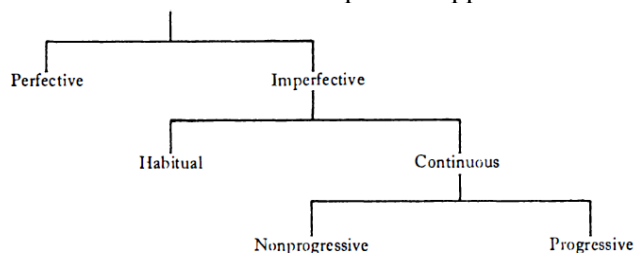
- (50) *The milkman used to call on Sunday.*

4.2.3. Aspectual differences

Filip and Carlson (1997) review the means of expressing genericity cross-linguistically and note that genericity is an independent semantic category, which cannot be reduced to Tense, Aspect or Mood. Nevertheless, they remark that in many languages, there is a strong connection between imperfectivity and genericity, and this conceptual connection is apparent in both Romance and Germanic languages. The above examination of English and Romanian in section 1.3 has shown a robust aspectual contrast between English, which uses the progressive to differentiate generic from episodic sentences, and Romanian, whose imperfective forms cannot do so, whence the ambiguity just illustrated in the preceding section.

The source of the contrast is that imperfective forms have a different range of interpretations, more extended or more restricted, as apparent in Comrie's (1976: 25) classification below:

- (51) Comrie's classification of aspectual oppositions



Comrie's classification shows that the Romanian (/Romance) imperfective covers **habitual events** and is therefore suitable to express genericity. It also covers **continuous events**, i.e. events unfolding, **irrespective of lexical aspect**. In particular, even states are compatible with the imperfect (52c). As a result, the Romanian imperfective does not distinguish between states (52a, 52c, 52d) and activities (52b), since an important property of the imperfect is that it always holds over open-ended intervals of time (52).

- (52) a. *Nicăieri nu umblă/umblau câinii cu covrigi în coadă.* (Ro.)
 nowhere not walk/walked dogs with pretzels in tail
 lit. 'Nowhere are dogs walking around/did dogs walk around with pretzels on their tails.' →
 'Nowhere is/was life a bed of roses.'
- b. *Maria tricotează o vestă.*
 Mary knits a vest
 'Mary is knitting a vest.'
- c. *Românii știu/știau bine franțuzește.*
 Romanians.DEF know/knew well French
 'Romanian know/knew French well.'
- d. *Își irosește viața. pe nimic.*
 CL.DAT.3SG wasting life.DEF on nothing
 'She/he is wasting her/his life for nothing.'

It should now be clear why the Romanian imperfective cannot distinguish between generic sentences (states) and episodic sentences (activities)

4.2.4. The English Progressive

The creation of the progressive in Modern English was a (rather late) answer to the perfectivity of the Present, described above. Jespersen (1948: 193) mentions that the expanded tenses *I am reading*, *I was reading*, etc. “were not fully developed even in Shakespeare’s time; the distinction between the simple and expanded tenses is now a wonderful means of expressing temporal and emotional nuances”. In particular, the perfective present could not report events in progress at ST, i.e. it cannot be continuative. Comrie (1976: 12) insightfully observes that unlike the Romance continuative, “progressiveness is the combination of continuousness and nonstativity”. The exclusion of states from the domain of the progressive has an important beneficial effect. Progressives (i.e. activities, achievements, accomplishments) have a limited duration, they hold over a bounded interval of time. Hence, analysts like Zagana (2007) claim that the event time (ET) of a progressive sentence should be divided into an initial and a final subevent, and that the truth of a progressive sentence is computed only over the initial subevent. In a pair of examples like (53), sentence (53b) is true, if there is a building activity, over the first interval of the ET required for the successful building of a new road.

- (53) a. *They built a new road in Romania.*
b. *They are building a new road in Romania.*

The important result is that given their non-stativity, progressive sentences are *inherently closed*. The non-progressive/progressive opposition is also an opposition between generic and episodic sentences.

- (54) a. *The birds were flying when the rain started.* (activity, imperfective)
b. *Birds fly./Dinosaurs were huge.* (state, perfective)

In conclusion, the considerable differences between the Romanian imperfective and the English progressive clearly show why English formally differentiates between generic and episodic sentences, and why Romanian does not.

Expectedly, Romanian speakers are aware of the difference between states and activities, which is signaled by other means. Among these, at least two stand out: one is the focus of activities on RT, since RT is included within the span of the event. This property was described as a characteristic of the progressive in Jespersen (1924: 278), and therefore of activities too. The purport of the progressive and, more generally of a verbal form which expresses an activity “is not to express duration in itself, but relative duration compared with the shorter time occupied by some other action” (Jespersen 1924: 278) or with the reference times itself, as apparent in the following examples:

- (55) a. *Ploua când a plecat.* (Ro.)
rained when has left
‘It was raining when he left’
b. *It was raining when he left.* (Engl.)
(where *Când a plecat/when he left* represent RT)

Equally important in dissociating states (generic sentences) from activities (episodic sentences) is the speaker’s ability to grasp the difference between kind-level properties (56a) and object-level properties (56b).

- (56) a. *Maria ține o prăvălie peste drum.*
Mary holds a shop across street
‘Mary runs a shop across the street.’
b. *Maria ține o floare în mână.* (Ro.)
Mary holds a flower in hand
‘Mary is holding a flower in her hand’

4.2.5. A consequence: nominal interpretations in progressive sentences

From the point of view the present discussion, it can be shown that the semantics of the progressive actually determines the interpretations of the NP/DPs in the sentence. Progressive sentences are true with respect particular situations contained in a particular possible world (see Dowty 1979).

Let us consider kinds first. Remember that kinds are functions on possible worlds; the value of these functions with respect to any given worlds is/are the individual(s) which is/are the (actual) realizations of the kind in that world. It immediately follows that kind-level **nominals are incompatible with progressive sentences**, and, more generally, with activities, which are closed time-intervals. The nominals in progressive sentences, and in activities more generally, are *kind realizations* (objects).

What is the precise form of the kind-realization, in our view, depends on **the epistemic state of the speaker**. It may be that the individuals that realize the kind are quite unfamiliar. This may give the existential reading of the kind, as in the following well-known examples, analyzed by Chierchia (1998) as below:

- (57) a. *Dogs run.*
b. *Dogs are running on my lawn.*
- (58) **Derived Kind Predication (DKP)** (Chierchia 1998: 364)
If P applies to objects and k denotes a kind, then
 $P(k) = \exists x [{}^U k(x) \wedge P(x)]$

There are also kinds (i.e. maximal sums that generalize over individuals), illustrated in the sentences below, whose extensional value at some particular time-world pair is a unique individual, identified by a PN or a definite descriptions.

- (59) a. *American presidents are rich.*
b. *Donald Trump is rich.*

In many situations the extension of the kind-function will be a group of individuals that the speaker is familiar with, and the speaker will use definite phrases (definite or possessive phrases) to refer to them.

- (60) a. *In trouble people turn to **friends**.*
b. *When I was once in trouble, I turned to **my friends**.*
- (61) a. ***Parents** offer **financial help**.*
b. ***My parents** offered **their financial help** (during my studies).*

The discussion above reveals that the use of the definite article in progressive, and, more generally, in activity sentences, signals Heim's (1982) familiarity feature. In other words, the speaker and the interlocutor can uniquely identify the referent of the definite description. Given this, we propose that the English definite article is provided with an additional familiarity feature (i.e. [+familiar]); familiarity is, in fact, a pragmatic feature that has been grammaticalized in English. This is not the case in Romanian which, as you remember, does not distinguish between states and activities. As we will see below, the expectation is that kinds, which are intensional entities (i.e. functions over time-world pairs), are unfamiliar and therefore do not take the definite article.

4.2.6 Assumption of acquisition theory regarding the development of article systems

From the point of view of the analysis above, what is puzzling regarding the definite article in English and Romanian generic sentences is not the definite article used in Romance, but the absence of a definite article in English.

We have noticed that there are two ways of conceiving of kinds, namely: (i) kinds are PNs and (ii) kinds are maximal sums. The second definition introduces the feature [+maximality], which is an obligatory feature of the definite article in the Russellian tradition. Given this, it is expected that languages that have a definite article will use it to refer to maximal sums.

Maximality is also a feature of kinds in English, yet the definite article is prohibited⁷. We think that the explanation has to do with the difference between episodic and generic sentences in English, therefore what is at stake is an effect of the English progressive. We have seen that the progressive cannot accommodate kind-denoting phrases, which are inherently [-familiar] in Heim's terms. As a consequence, in progressive

⁷ Recall, however, that definite singular generics are allowed in both languages.

sentences, when the speaker talks about a familiar entity, he will use the definite article or a PN, as shown above (examples in section 4.2.5). As a matter of fact, familiarity, a pragmatic property in principle, has been grammaticalized in English, so the English definite article is characterized as [+definite, +maximal, +familiar].

4.2.7. *Generics are acquired early on*

Remember that children start using generics by two years of age, earlier than they use explicit quantifiers. Linguistic research has also paid extensive attention to the acquisition of the definite article. The following two results obtained in these studies are relevant for the present inquiry.

(i) First, it is acknowledged that (at least) in Romanian all children go through an initial stage (1;5-1;10) when they produce both NPs and DPs, and the DPs frequently contain the definite article. It has also been underlined that at this early stage it is relatively difficult to ascertain whether the child has the meaning of the definite article. According to Avram (2001: 113), “during the first stage, the definite article seems to be present from the beginning, but it is not used in an adult-like way; it is extended to contexts where the indefinite article and bare nouns are used by adults (...) what seems to be the definite article is an ‘impostor’ during this stage” (Avram 2001: 113). Avram (2001: 113) also notices that during the second stage of acquisition [1;10-2;4] “the definite article continues to be overused in non-adult contexts”. Similarly, Gavarró et al. (2006) observe that, despite robust findings that emergence of determiners is early, there is little direct evidence as to the children’s acquisition of the target meanings. However, “one natural hypothesis is that these minimal structures are automatic and that the acquisition of the semantic mapping should not require extensive language experience. If minimal default structures produce a default interpretation directly from UG, we expect children to directly recognize the relevant meanings” (Gavarró et al., 2006). Happily, these results are convergent with Leslie’s cognitive description of article acquisition as well as with our analysis above

(ii) The second, more applied, fact is that in a comparison between Dutch (Germanic) and French (Romance) regarding the deletion/retention of the definite article in the acquisition process, there is a period where deletion roughly represents the same percentage, followed by a second one where the article is almost always retained in French, but not in Dutch⁸.

4.2.8. *The presence/absence of the definite article explained*

The discussion above allows to explain the different distribution of the definite article with different categories of nominal phrases.

(i) Consider English BPs and uncountable singular nouns first. They are conceptualized as PNs of kinds. As shown above, their similarity with object-level PNs (= names of individuals) is underlined by Carlson, observing that both occur in the “so-called”-context, a context which excludes overt determiners, as shown above in section 1.2, examples (6)-(7).

BPs could never target the determiner slot where the definite article is specified as [+familiar] because they are [-familiar].

Importantly, in the case of English BPs, maximality is derived from the uniqueness of the PNs.

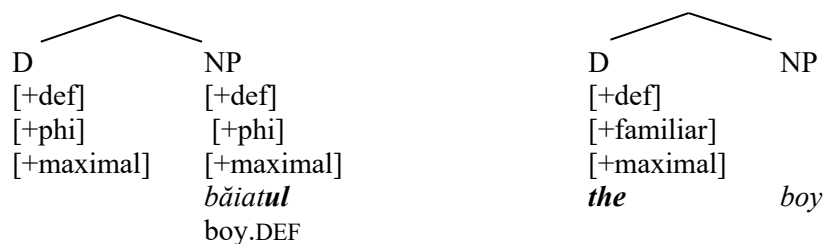
To conclude, English BPs are [+maximal] and [-familiar].

(ii) Consider next English definite plurals. These nominals have a [+familiar] feature, i.e. they reflect knowledge of the referent of the DP by both the speaker and the hearer, as discussed above. Therefore, they can match the familiar definite article. As such, English definite plurals cannot refer to kinds, which are [-familiar].

(iii) Romanian definite nominals come next. The different composition of generic sentences in English/Romanian also follows from the different morphology of the definite article in the two languages. The Romanian article expresses the same semantic features, but it is also a **suffix** that carries **phi-features** (gender, number, case). The presence of agreement features results in the fact that the definite article is involved in agreement processes (Cornilescu and Nicolae 2011). In Romanian, and more generally, across Romance, the definite article is a classifier licensing and **overtly marking** the inflectional (phi-) features of the noun; hence Romanian nouns suffixed by the definite article are inherently definite. The differences between the definite articles in the two languages are apparent in the schema below.

(1)	a.	DP	(Romanian)	b.	DP	(English)
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⁸ Van de Velde (2002) presents acquisition data on the use of definite determiners in Dutch and French by monolingual 4- and 6-year-olds. French children consistently produced definite determiners and rarely used bare nouns, with no significant differences between age groups. In contrast, Dutch children produced more bare nouns—though still infrequently (10.9% at age 4)—than their French counterparts.



Since kinds are maximal entities, their maximality feature automatically triggers the presence of the definite article. Therefore, generic subjects/objects are definite in Romanian.

(iv) Finally, consider Romanian BPs. According to Chierchia's (1998) typology, Romanian is a language where bare NPs (in contrast with DPs) are not argumental. This claim is not exceptionless, since we find BPs as subjects (and objects!). In subject position, they are existentially quantified, and, at LF, they are interpreted VP-internally (Diesing 1992). In object position, they denote properties and are usually interpreted as predicate modifiers by incorporation (see van Geenhoven 1998, Dobrovie-Sorin and Laca 1999, 2003 among many). In any case, they are not maximal and hence cannot be generic.

5. Conclusions

1. The contrastive examination of English and Romanian generics has first revealed that both (probably) all languages have the same initial structure for generic sentences related to the earliness of generic acquisition. The comprehension and, then, production of generics requires no functional structure, but rather merely the comprehension of lexical aspect in its simplest form, that of states. Generic subjects are interpreted as proper names of kinds, as names of concepts. No quantificational elements are required. From a cognitive perspective, the state of the conceptual system is the default one.

2. From a comparative point of view, a striking contrast is the aspectual one. Through its bounded interval nature, the English progressive marks a clear contrast between generics (which are open-ended states) and episodic sentences (which are limited duration progressives). The Romanian imperfective is open-ended in all its uses (generic, episodic or other), so that no contrast between generics and episodics can be established in Romanian by verbal means. This is a major difference in the grammar of generic sentences in these languages.

3. With respect to the distribution of the articles, the difference lies in the composition of English/Romanian definite articles. From a semantic perspective, as clearly pointed out first by Heim (1982), the use of the definite/indefinite article reflects the epistemic state of the speakers. This has important consequences: the definite article is used in familiarity contexts; progressive sentences do not countenance reference to kinds because they are unfamiliar. Given these properties, kinds are denoted as bare plurals in English. Under the kinds as proper names approach, maximality follows from the uniqueness of proper names. The feature composition of the English definite article is the following: D: [+definite, +familiar, +maximal].

4. Unlike the English definite article, the Romanian one additionally bears phi-features, and is only optionally [+familiar]; therefore, its feature matrix is: D: [+definite, +phi, +maximal]. Familiarity is a pragmatic feature of the Romanian definite article which has not been grammaticalized. Maximality requires the presence of the definite article in generic sentences.

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