Generic reference in English:

A metonymic and conceptual blending analysis*

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0. Introduction: Outlining problems of genericity

0.1. Types of generic reference

The notions of genericity and generic reference apply to types, or kinds, or classes, which are part of the structured, or idealized, model of the world (Langacker 1991: 264, 1995; Taylor 2002: 359). Genericity is, however, not a uniform phenomenon. Scholars of genericity (see e.g. Krifka et al. 1995, Nickel 2005) generally distinguish between two basic classes of genericity: characterizing generalizations, as in (1a), and direct reference to a kind, as in (1b).

(1) a. *A lion* has a bushy tail.

b. *The lion* is a predatory cat.

Sentence (1a) expresses a characterization of a type, the species 'lion'. The predication *has a bushy tail* describes a characteristic attribute, which, however, need not apply to all members of

the type: there are, in all likelihood, lions in the world that do not have a bushy tail. A characterizing generalization thus allows for exceptions. Sentence (1b), by contrast, does not allow for exceptions: it is a statement about the species 'lion' as a whole. The generic noun phrase *the lion* "directly" refers to a type and the predicate *is a predatory cat* categorizes the type.

The dichotomous distinction between these two types of genericity is certainly justified from a truth-conditional point of view. However, the borderlines between characterizing generalizations and direct reference to a kind are far from clear-cut. Genericity is—as suggested by Chesterman (1991: 38) and Anderson (2004: 446–450)—much rather to be seen as forming a cline from full to marginal genericity. Such a cline would take into account conceptual as well as linguistic aspects, such as the type of construction, the predicate, tense, aspect, information structure, adjuncts, and type of generic reference.[1] This study is concerned with types of generic reference in English and their conceptual basis.

English distinguishes four types of generic reference by means of two dimensions: definiteness/indefiniteness of the article and singular/plural number of the noun. I assume that each form of generic reference conveys its own generic meaning.[2] Striking differences between the generic NPs can, for example, be observed in their behavior with respect to non-human and human referents in subject position. As shown in Table 1, three of the four types of generic reference display different degrees of acceptability depending on whether they denote a non-human or a human generic referent. Such seeming irregularities are, of course, in need of explanation and are also dealt with in the ensuing discussion.

Table 1. Generic reference with non-human and human subjects in English

generic form	non-human generic subject	human generic subject
(a) indefinite singular	*A lion has a bushy tail.*	*?An Italian loves pasta.*
(b) indefinite plural	*Lions have bushy tails.*	*Italians love pasta.*
(c) definite singular	*The lion has a bushy tail.*	*?The Italian loves pasta.*
(d) definite plural	*?The lions have bushy tails.*	*The Italians love pasta.*

It has often been noted that the forms used for generic reference in English are identical to those of non-generic, or individuative, reference. In fact, no language seems to have forms that are exclusively reserved to mark generic referents.[3] It is therefore to be expected that individuative and generic reference are not just related with respect to their forms but also with respect to their meanings. An important commonality between individuative and generic reference has been observed by Hawkins (1978). In both types of reference, the indefinite article refers exclusively while the definite article refers inclusively. Thus, both the indefinite individuative referent in *A lion jumped at me* and the indefinite generic referent in *A lion has a bushy tail* are exclusive in that at least one more lion is presupposed to exist that is excluded from a given reference mass. Likewise, both the definite individuative referent in *The lion has escaped* and the definite generic referent in *The lion is a predatory cat* are inclusive in that only one particular lion and only one type 'lion' are included in a given reference mass.

0.2. Interdependence of instance and type

Hawkins' insights into the parallelism between individuative and generic reference may be seen more generally as reflecting the tight conceptual connection that exists between tokens and their types, or between instances and types. The interdependence of instance and type pervades our everyday behavior and reasoning. Perception involves recognizing individual phenomena as instances of a type, and knowledge of a type allows us to project its characteristics onto its instances. For example, when, on a hike, we hit upon a snake slithering across the grass (instance) and realize that it is a rattlesnake (type), we instantly project our knowledge of poisonous rattlesnakes (type) onto the particular snake in front of us (instance) and react accordingly, i.e. back away. When we cannot identify the type an instance belongs to, we feel irritated or even alarmed. Thus, a sudden shooting pain in the chest (instance) will fill us with anxiety until the disease (type) has been diagnosed so that it (instance) can be properly treated.

In language, the tight connection between instance and type is most visibly manifest in acts of individuative reference. When we refer to a particular instance as in *the book*, we do so by naming the type it belongs to, i.e. the type 'book'. The determiner and the number of a noun provide further specifications of the instance. The TYPE may thus metonymically stand for an INSTANCE of the type. Conversely, an INSTANCE may evoke, or stand for, the TYPE it belongs to. As pointed out by Norrick (1981: 35), "any specific instantiation of a class calls forth the whole class." He gives the examples of a single violin that calls forth the class of violins, or of a

musical note that calls forth the musical key system. In a similar vein, Langacker (1991: 62) argues that "a type conception is immanent in the conception of an instance".

In view of the interdependence of instance and type, it is not surprising that referring expressions may, under certain conditions, be ambiguous between an instance and type reading. Carlson (1980: 53) has noted a systematic ambiguity of count nouns with certain quantifiers and demonstratives. For example, *every animal* may be interpreted in the sense of 'every particular animal' or 'every kind of animal'. Similarly, *this car* in *I really like this car* may refer to the particular car I am pointing at or the make of this car, i.e. the type of car. The linguistic and/or situational context normally resolves potential ambiguities between instance and type readings. Thus, we tend to understand the salesman's comment that *This jacket is our best-selling item*, "not in the sense that the particular jacket has been sold many times, but that jackets made to that design have sold well" (Taylor 1995: 123). Here, the predicate nominal *our best-selling item* imposes a generic interpretation of *this jacket* and hence disambiguates the sentence. Nevertheless, the notion of an individuative instance is still present. In talking about the type of jacket the salesman may lift up a particular jacket or point at one – he cannot possibly lift up or point to a type as such. Understanding a particular instance in a generic sense is based on metonymic reasoning: we need to know that a particular INSTANCE may be used to stand for its TYPE—young children will probably not be able to perform this kind of metonymic generalization. It is probably safe to assume that individual instances are experientially more basic and salient than abstract types and that we derive general information from specific

information. This paper argues that we comprehend and process generalizations about a type by way of its instances, i.e. by means of the metonymy INSTANCE FOR TYPE.[4]

Generic reference involves a further conceptual process that is also metonymic in nature. The example of the characterizing sentence (1a), *A lion has a bushy tail*, has shown that generic reference may allow for exceptions. In this case, the generalization does not apply to the type 'lion' as a whole but to male lions only. In his discussion of metonymic models, Lakoff (1987: 77–90) convincingly demonstrates that categories are typically comprehended via subcategories or individual members. Thus, the category 'mother' is comprehended via the prototypical subcategory 'housewife mother', i.e. by means of the metonymy SUBCATEGORY FOR CATEGORY. Lakoff's metonymic models apply to categories at the conceptual level. When a category is named, the metonymic process is reversed: the category evokes, or stands for, one of its subcategories. Thus, when there is talk about a mother and her three children, the linguistic category *mother* tends to evoke, or stand for, the subcategory 'housewife mother'. The metonymy involved might be described as (LINGUISTIC) CATEGORY FOR SUBCATEGORY. The same kind of metonymy also applies to generic types. In the case of *A lion has a bushy tail*, the type 'lion' is understood as applying to the subtype of prototypical lions only, i.e. a TYPE is used to stand for a SUBTYPE.

This paper argues that generic referents are accessed by way of the metonymies INSTANCE FOR TYPE and TYPE FOR SUBTYPE. The notion 'metonymy' is understood as an inferential process that links a source concept to a target concept within the same idealized cognitive model, giving rise to blended and emergent meaning. The ensuing discussion of

generic reference in English shows that the metonymic sources, far from being erased, conceptually blend with the metonymic targets and contribute to the specific emergent meaning that characterizes each particular type of generic reference.

This paper thus makes the following assumptions about the conceptual basis of generic reference:

i. Generic reference applies to types, where the type is invoked by way of an instance. Generic reference thus involves the metonymy INSTANCE FOR TYPE.

ii. The characterizing type of generic reference allows for exceptions, i.e., it applies to a subtype of the type. Generic reference may thus also involve the metonymy TYPE FOR SUBTYPE.

iii. Generic reference involves the conceptual blending of instance and type.

As shown in Table 1, generic reference may be construed in different ways. The specific forms of generic reference and the meanings associated with each of them are the subject of the following sections. This discussion of generics is restricted to referring expressions with count nouns in subject position. Mass nouns lack distinctions in number and use of articles and hence do not allow the same range of generic construals that count nouns do. Thus, we can normally only generalize about substances by using one form: an articleless singular NP, as in *Oil floats*, and not **The oil floats*, **An oil floats*, or **Oils float.*

The following sections are organized in the order of the four types of generic reference listed in Table 1. Sections 1 and 2 discuss indefinite generic construals and sections 3 and 4 definite generic construals.[5] The results of this study are summarized in section 5.

1. Indefinite singular: Representative generic

1.1. Individuative and generic indefinite singulars

Indefinite reference is exclusive. In individuative reference, exclusiveness of a single instance is illustrated in a request such as *Can you open a window?* Here, the speaker refers to a single non-specific instance and at the same time presupposes that there is at least one more element within a pragmatically defined set that is excluded, i.e., there is assumed to be at least one more window in the room that can be opened. We would not say *Can you open a window?* when there was only one window in the room. Likewise, in generic reference, a single indefinite instance is profiled but at least one more element is presupposed to exist within the reference mass of the type that is excluded. Thus, in the generic statement *A lion has a bushy tail*, only one non-specific instance of a lion is profiled at the exclusion of all the other lions that form the reference mass of the type 'lion'.

In both types of reference, the speaker has no specific entity in mind, and an arbitrary element within a reference mass qualifies to be selected. In individuative reference, this instance

becomes the non-specific referent; in generic reference, this instance is understood to represent the generic type. This kind of reference is therefore described as **representative generic**.

1.2. Representative-instance quantifiers and representative generics

Generic *a(n)* has often been viewed as equivalent to the universal quantifier *any* (e.g. Jespersen 1949: 424, Perlmutter 1970, Quirk et al. 1985). Both *a(n)* and *any* profile an arbitrary individual element as representative for a whole. Thus, the subject NPs in both *An alligator has a strong bite* and *Any alligator has a strong bite* are singular in form, take singular agreement and denote a single indefinite instance but represent a whole: a type in the generic sentence and a full set in the quantifying sentence. Langacker (1995) described the set quantifiers *any* and *every* as *representative-instance quantifiers* and the generic article *a(n)* as *representative-instance generic*.

The representative-instance quantifiers *any* and *every* and the representative generic *a(n)* are different grammatical categories but, as shown by Langacker (1995), belong to the same paradigm.[6] Both of them occur only in non-progressive sentences, as in (2a), and preclude the use of the progressive aspect, as in (2b):

(2) a. {Every/ any/ a} cat *dies* before the age of 15 these days.

b. {?*Every/ *any/ *a} cat *is dying* before the age of 15 these days.

In using the non-progressive aspect in (2a), I adopt a maximal viewing frame of an event, which allows me to see both the single event (of one cat dying) and the higher-order general event it represents (of cats as a set or type dying). In using the progressive aspect, I take a restricted viewing frame of an event and see it internally and as implicitly bounded (Radden & Dirven 2007: 178). A single implicitly bounded event cannot simultaneously represent a higher-order set or type of events. Thus, sentences with a representative generic are not compatible with the progressive. This analysis confirms Declerck's (1986) observation that the progressive necessarily applies to a single situation, which therefore can have no generic reading.

For a similar reason, representative-instance quantifiers and representative generics cannot be coordinated (3a), while definite singulars (3b) and bare plurals (3c) permit their coordination.[7]

(3) a. **A beaver and an otter* build dams.

b. *The beaver and the otter* build dams.

c. *Beavers and otters* build dams.

In the conjoined representative instances in (3a), each of the coordinated phrases profiles its own individual event representing its own type: 'a beaver builds its kind of dams' and 'an otter builds its kind of dams'. Since each individual event involves its specific kind of dam-building, they cannot jointly represent a generic event. Definite singular generics as in (3b), on the other hand,

can be coordinated because they denote types (see section 3), and bare plurals as in (3c) can be coordinated because they refer to proportions (see section 2).

The grammatical constraints of the representative generic with respect to the progressive and coordination show that the single instance is highly prominent. Further evidence for the prominence of the single instance can be seen in its incompatibility with 'kind predicates'. Kind predicates include verbs such as *die out*, *abound, collect*, or *scatter*, predicative adjectives such as *be extinct*, *be endangered*, *be numerous*, *be rare*, *be widespread*, or *be common*, and semantically similar expressions (Krifka et al. 1995: 8–14). Only a species as a whole, not an individual member of a species, can die out, become extinct, abound, etc. In fact, not even full sets can be said to be dying out or facing extinction: **any orangutan is dying out*, **all gorillas are facing extinction*. As has often been noted, kind predicates are not compatible with indefinite singulars, i.e. representative generics, as in (4a), but are compatible with bare plurals, as in (4b), and definite singulars, as in (4c):

(4) a. **An orangutan* will die out.

b. *Gorillas* are on the brink of extinction.

c. *The chimpanzee* is critically endangered.

As with the progressive, the ungrammaticality of kind predicates with representative generics as in (4a) is apparently due to the singularity of the representative instance and the concomitant exclusion of all other elements of the type.[8] How is it possible that a single instance

can exclude all other elements of the reference mass of a type and at the same time be interpreted as denoting this very type? This puzzling question cannot be solved solely in terms of metonymy.

1.3. Blending of instance and type in representative generics

Like all types of generic reference, the representative generic is based on the metonymic relation between instance and type. The metonymic source, the singular instance, and the metonymic target, the type, jointly determine the generic meaning.[9] However, the representative generic is, as suggested by Christophersen (1939), nearer to individual use and more of a representative use. He gives a fitting psychological account of the fusion of the individual and generic concepts: "there is an image in the mind, more or less vague, of a single individual, accompanied by a certain knowledge that what is said about this individual would have been equally true if we had chosen another member of the same class instead" (33), and "[t]he generic *a*-form is at times only a masked individual use. The speaker has often one definite case in mind if he veils his speech in the garb of a generic statement" (130). This description calls for a blending analysis, in the sense of Fauconnier and Turner (2002).

Let us illustrate the blending of instance and type in the sentence *A lion has a bushy tail*. Input 1 contains the profiled indefinite instance 'a lion' and input 2 the type 'lion'. The type is evoked by the generic context and the INSTANCE FOR TYPE metonymy. The blended space inherits the notions 'instance' and 'type' from the two input spaces and fuses them conceptually.

Moreover, the blend contains emergent meanings: the meaning of arbitrariness derives from the indefinite, non-specific nature of the instance, and the meaning of representativeness derives from its relation to the type. The representative generic also allows for exceptions, i.e., it applies to a prototypical SUBTYPE of the TYPE. This aspect of meaning derives from our metonymic comprehension of categories in terms of salient subcategories (see section 0.2).

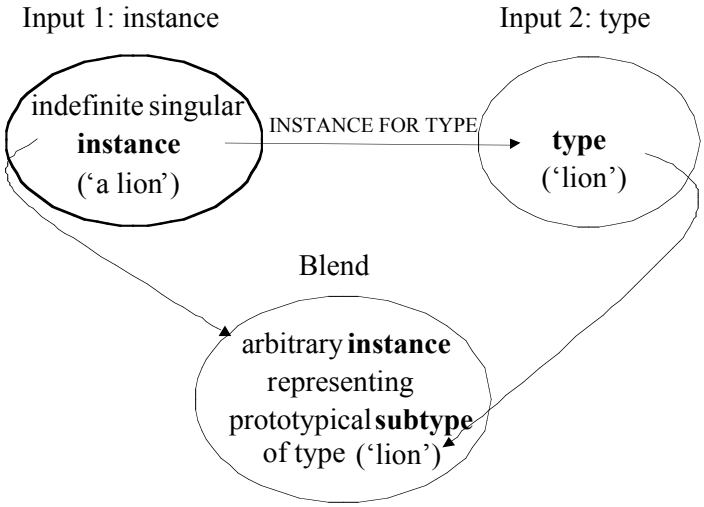

Figure 1. *Representative generic*: A lion (has a bushy tail)

1.4. Uses of the representative generic

The conceptual integration of 'instance' and 'type' has consequences for the use of the representative generic. If one arbitrary instance can represent a generic type, all individual members of the type must be equivalent. This also means that only those attributes can be

predicated of the representative instance that are shared by all its members. These are typically essential or characteristic attributes of the category; accidental attributes may apply only to a subset of its members but not to the category as a whole. Thus, typical birds have a beak and feathers and lay eggs. We may therefore pick a typical bird and generalize about the species 'bird' by saying *A bird has a beak and feathers and lays eggs*. Attributes such as 'singing' or 'beauty' do not characterize the "essence" of the species 'bird', since there are birds that croak and birds that are not seen as beautiful because beauty is in the eye of the beholder and not in the thing itself. Hence the generalizations such as *?A bird sings* and *?A bird is beautiful* sound odd. A convincing set of examples of essential as opposed to accidental attributes has been provided by Lawler (1997):

(5) a. A madrigal is *polyphonic*.
b. ?A madrigal is *popular*.
c. *The madrigal* is popular.
d. *Madrigals* are popular.

Sentence (5a) is acceptable because *polyphonic* predicates an essential, or necessary, attribute of madrigals: madrigals are polyphonic unaccompanied songs on a secular theme. Sentence (5b), by contrast, is unacceptable because *popular* ascribes an accidental attribute of madrigals. What counts as an essential attribute depends on the kind of thing the attribute is ascribed to. While popularity is not an essential attribute of madrigals, it is an essential aspect of a football hero so

that the statement *A football hero is popular* is acceptable (Krifka et al. 1995: 13). A comparison of the representative generic in (5b) to other generic construals shows that it is more restrictive than either the definite singular in (5c) or the bare plural in (5d).

Essential attributes are particularly relevant in definitions: they define what we assume to be the "essence" of a thing. It is thus no coincidence that the indefinite singular is the preferred form of a *definiendum*. This applies to definitions of scholarly terms as in (5a) as well as to definitions of everyday terms, as illustrated in the following definitions found in the *Sesame Street Dictionary* (Hayward 1980):

(6) a. *A car* is something that you ride in.

b. *A card* is a flat stiff piece of paper.

c. *A carpenter* is someone who builds things with wood.

This children's dictionary defines its terms by using "complete" sentences and expressing the *definiendum* in a full indefinite noun phrase. For reasons of space, most dictionaries do not repeat the entry in their definitions. A natural context for full definitions are questions of the form *What is a N?*, which evoke answers in complete sentences, as in the following examples found on the Internet:

(7) a. What is a package? - *A package* is a namespace that organizes a set of related classes and interfaces.

b. What is a galaxy?—*A galaxy* is made of billions of stars, dust, and gas all held together by gravity.

The definition given in (7a) conforms to the classical pattern of *genus proprium* and *differentia specifica*, i.e., it provides a superordinate type and specifies it by naming one or more essential and distinctive attributes. Sentence (7b) shows that events also may qualify as essential attributes defining a type.

We are now in a position to explain the restriction on the use of the representative generic with humans, as in the barely acceptable sentence *?An Italian loves pasta* listed in Table 1. Let us consider the following examples of generic types of humans:

(8) a. *??An Italian* is a football fan.

b. *An Englishman* drinks tea, even underwater.

c. The average life expectancy for *an Italian* is 79.54 years.

d. *A linguist* is one who engages in the study of language.

'Loving pasta' or 'being a football fan', for all intents and purposes, are not essential attributes defining nationalities. When such "accidental" attributes are used in conjunction with the representative generic, they are understood as conveying a national stereotype and hence as being politically incorrect.[10] The writer of sentence (8b) in fact nicely exploits this aspect of meaning of the representative generic in parodying a popular English stereotype. Nations seem to

lack an inherent essence and hence can usually not be represented by a single member of this nationality. Like any other object of study, however, nationalities can also be studied scientifically under the restricted "essence" of the given goal. Thus, in (8c), the statistical average of life expectancy applies to a nation as a whole since it is based on the sum of its individual members.[11] There are apparently only very few essential attributes that can be predicated of an individual person as representative of a type of human without sounding stereotypical. One such essential attribute would be the role people play in society, especially with respect to their profession. Thus, as stated in definition (6c), the essence of a carpenter resides in building things with wood, and an arbitrary instance of a carpenter can represent this category. Similarly, according to the definition given in (8d), the essence of a linguist resides in engaging in the study of language.[12]

In sum, the representative generic has the following characteristics. A single indefinite instance is profiled to the exclusion of other elements of its type. The INSTANCE metonymically stands for its TYPE. The notions of instance and type are blended, giving rise to the emergent meanings 'arbitrariness' and 'representativeness' of the instance. Due to these aspects of meaning, the representative generic is compatible only with essential attributes shared by all members of the generic type. However, the representative generic allows for exceptions: it typically applies to a prototypical subtype, i.e., it involves as a further metonymy TYPE FOR SUBTYPE.

2. Bare plural: Proportional generic

2.1. Individuative and generic indefinite plurals

Like the indefinite singular, the indefinite plural is exclusive. It denotes a proportion of at least two elements and excludes at least one element from a set. In individuative reference, the referent *some teeth* in *I lost some teeth yesterday* fulfills these requirements: I lost at least two teeth of my set of teeth. In the sentence *?Bill lost some legs in the war*, by contrast, *some legs* presupposes the existence of more than two legs, which, of course, conflicts with our knowledge of the world (Hawkins 1978: 180).

In generic reference, the indefinite plural only occurs in its bare form. The bare plural is normally also exclusive, i.e., we expect generalizations expressed by the bare plural to allow for exceptions. Thus, we understand the sentence *Lawyers are crooks* as a generalization about a substantial proportion of lawyers, but by no means about all lawyers. This kind of reference is therefore described as **proportional generic**.

How large does a proportion have to be in order to allow generalizations about a type? The size of the proportion may vary considerably. It may in fact range from 'all' to 'a few', as illustrated in the following examples:

(9) a. *Horses* are mammals. [= all]

b. *Dodos* eat peanuts. [= most]

c. *Finns* always do well in ski-jumping competitions. [= a few]

The generic referent in (9a) applies to a type without exception, i.e., it is inclusive, the generic referent in (9b) applies to most dodos, and the generic referent in (9c) applies only to the small set of "Finnish ski-jumpers, and only to the cream of these, perhaps to only two or three individuals" (Chesterman 1991: 38).

Because of its wide range of application, Chesterman (1991: 76) regards the bare plural as "the generic article *par excellence*", while Burton-Roberts (1976: 441–4) regards the bare plural as not generic at all because there does not seem to be any clear-cut distinction between its generic and individuative usages.[13] Carlson (1980) and Lyons (1999) adopt a similar position and argue that the bare plural does not have a constant semantic interpretation. This can be seen from the possibility of coordinating generic and individuative instances, as in:

(10) Hedgehogs are shy creatures but often visit my garden. (Lyons 1999: 191)

This kind of coordination is not possible with singular generics: **The/*A hedgehog is a shy creature but often visits my garden*. The unique behavior of the bare plural in construction (10) shall therefore be analyzed in more detail. The first clause characterizes the species 'hedgehog', while the second clause characterizes the behavior of individuative hedgehogs: they often visit my garden. However, the antecedent for the individuative hedgehogs is the generic referent *hedgehogs* in the first clause. The conjunction *but* conveys counter-expectation: the behavior of the hedgehogs visiting my garden conflicts with my expectation about the normal behavior of hedgehogs. Hedgehogs are normally shy, but those that visit my garden are apparently bold and

hence excluded from the generic class of shy hedgehogs. In terms of quantity, the proportion of shy hedgehogs probably outnumbers that of bold hedgehogs. In the complex sentence (10), the indefinite plural subject *hedgehogs* thus combines three notions of reference and quantity: it profiles an indefinite larger proportion (shy hedgehogs), metonymically invokes a type ('hedgehog'), and serves as the antecedent for the smaller, excluded proportion in the *but*-clause.

Generic and individuative referents are, of course, normally not coordinated, as in sentence (10). However, the fact that their coordination is possible at all shows that the generic bare plural is closer to individuative reference than the two singular generic construals. This is also borne out by the possibility of switching from individuative to generic reference. Thus, sentence (10) can also be reversed as *Hedgehogs often visit my garden but are (really) shy creatures*, where the antecedent of the implicit generic referent in the *but*-clause is the specific referent *hedgehogs* in the first clause.[14]

In its propinquity to individuative reference, its wide proportional range, and its exclusive and inclusive uses, the bare plural generic poses particular problems for postulating a unified meaning. Can the different usages be subsumed under a core meaning and are their different senses motivated? First to be discussed is the most typical use of the bare plural as a proportional generic (section 2.2), then its blended generic meaning (section 2.3), and finally the set referred to by the bare plural (section 2.4).

2.2. The bare plural as a proportional generic

According to Langacker (1995), plural generics belong to the same paradigm as the quantifiers *all*, *most*, and *some*, which describe a proportion. Both these "proportional quantifiers" and the plural generic profile a set of entities as some proportion of a reference mass. With full sets as described by *all*, the subset coincides with the reference mass. Unlike representative-instance quantifiers and representative generics as in (2), proportional quantifiers and bare plurals are compatible with the progressive, as in sentence (11b):

(11) a. {All/ most/ some/ ∅} cats *die* before the age of 15 these days.

b. {All/ most/ some/ ∅} cats *are dying* before the age of 15 these days.[15]

Both proportional quantifiers and bare plural generics take plural nouns and plural concord and hence profile a set of entities. The process in which the quantified or generic referent participates may be construed as indefinitely lasting (11a) or as temporary (11b). Sentence (11b) in the progressive would thus be understood to mean something like 'nowadays all/most/some/∅ cats are dying at the age of 15 but, at some other time, they may have died at an earlier or later age'. Unlike the singular representative instance in (2b), the plural proportional instance in (11b) is part of the higher-order, collective process. It is, therefore, compatible with both indefinitely lasting generic processes and temporary generic processes.

The bare plural generic differs from proportional quantifier phrases in that it is also compatible with kind predicates: *Dinosaurs are extinct* is grammatical (see also sentence (4b) above), while **All/most/some dinosaurs are extinct* is not. The bare plural noun *dinosaurs* thus

profiles a proportion which, at the same time, represents a type. Its dual nature distinguishes the bare plural generic from singular generics. Farkas and Swart (2007: 1664) appropriately describe the plural generic in *Dinosaurs are extinct* as a 'constructed', or 'derived kind', as opposed to the 'atomic kind' expressed by the singular generic in *The dinosaur is extinct* (see section 3). An atomic kind refers to the type-level entity directly, while the constructed kind creates a type-level entity by summing up all its realizations, i.e. by a kind of summary scanning. In the context of processes, constructed kinds are therefore compatible with adverbs specifying modes or phases of their summing up, as in (12a), which sounds odd with atomic kinds, as in (12b):

(12) a. Dinosaurs slowly/ gradually/ eventually became extinct.

b. *The dinosaur slowly/ gradually/ eventually became extinct.

We assume that, due to its collective composition, the bare plural generic always involves mental summing up, irrespective of the kind of predication it occurs in. In inclusive uses as in (9a), *Horses are mammals*, and (12a), the summed-up proportion is identical to the whole reference mass of the type, and in exclusive proportions, as in (9b), *Dodos eat peanuts*, the summed-up proportion is smaller than the type's reference mass.

2.3. Blending of instance and type in proportional generics

Like representative generics, proportional generics involve the conceptual integration of instance and type, as shown in Figure 2. The bare plural *hedgehogs* in the sentence *Hedgehogs are shy creatures* serves as an illustration. The indefinite plural evokes a mental space comprising an indeterminate number of entities ('hedgehogs') which, following Langacker, is described as forming one (plural) instance.[16] The second input, as in all generic construals, is evoked by the INSTANCE FOR TYPE metonymy: it represents the type 'hedgehog'. Instance and type are conceptually blended, giving rise to emergent meanings. The indeterminate number of entities denoted by the indefinite plural is understood as forming a proportion of the overall reference mass of the type, i.e. of all hedgehogs that can potentially be referred to by the type 'hedgehog'. This proportion establishes a prototypical subtype of the type, such as 'shy hedgehogs'. As a rule, the subtype in proportional generics forms the larger subset of the reference mass and thus corresponds to 'most'. However, as is shown below, the generic proportion may also be smaller but salient in other than quantitative respects. The generic proportion is therefore characterized as 'salient'.

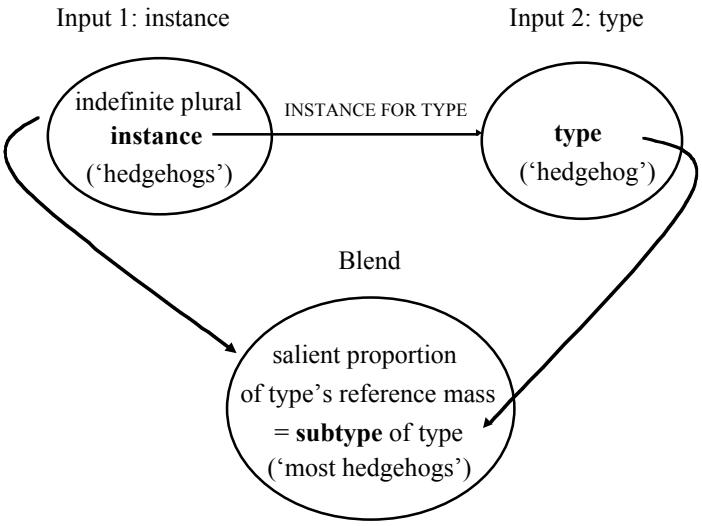

Figure 2. *Proportional generic*: Hedgehogs (are shy creatures)

In the characterizing generalization *Hedgehogs are shy creatures*, the generic referent *hedgehogs* is understood exclusively, since there are, as seen in example (10), also hedgehogs that are not shy. In direct reference to a kind as in *Hedgehogs are spiny mammals*, on the other hand, *hedgehogs* are understood inclusively, i.e., all hedgehogs are spiny mammals. Yet, the conceptual representation of both types of generic reference is basically the same: an indefinite plural instance is profiled, its type is metonymically evoked, the instance is understood as a salient proportion of the type’s reference mass, and the proportion is equivalent to the prototypical subtype of the type. With proportional generics, the only difference between direct reference to a kind and a characterizing generalization is that, in the former, the proportional subset is, as a limiting case, of the same size as the full set of the reference mass. The following section examines the issue of the proportional subsets, or subtypes, more closely.

2.4. The proportional subset referred to by proportional generics

The extensional notions of proportion, (sub)set, and reference mass make the bare plural the preferred construal for generalizations based on quantitative and statistical information. The following excerpt from a paper written by a graduate student of political science illustrates the reasoning process leading from statistical data to a proportional generalization.

(13) Bear in mind, Americans are patriotic. A full 97% of respondents to the 1994 GSS [General Social Survey] identified themselves as either "extremely proud", "very proud", or "somewhat proud" to be an American, compared to less than 2% who were "not very proud".[17]

The student's generalization that "Americans are patriotic" was based on the number of respondents who identified themselves as "extremely", "very", or "somewhat" proud to be an American. Their responses amount to 97% of the overall sample and thus represent the larger proportion of the reference mass. The 2% of the respondents who were "not very proud" to be an American form the smaller subset and are excluded. These quantitative results are then reinterpreted in a qualitative, or generic, sense: 'Americans in general are patriotic'. Most people would probably agree that the generalization made by the student is valid. It is also immaterial for this generalization that responses along the middle range ("somewhat proud") were included in the generic class and that "being proud" was identified with "patriotic".

The magnitude of the generic subset expressed by the bare plural tends to approximate the whole set of the type, as confirmed by the sentences below. The continuation clauses in (14a) illustrate that the generic subset does not include all entities of a set, the clauses in (14b) demonstrate that it does not apply to small magnitudes, and the clauses in (14c) show that 'most' of a set represents the best magnitude of a generic subset.

(14) a. Americans are patriotic, #in fact all of them are.

Americans are patriotic, but of course not all of them are.

b. Americans are patriotic, ?at least some of them are.

Americans are patriotic, #in fact a few of them are.

Americans are patriotic, but of course some of them aren't.

c. Americans are patriotic, in fact most of them are.

Americans are patriotic, #but most of them aren't.

The bare plural is the preferred generic form to use for probabilistic judgments (Dahl 1995) and very vague and impressional statistics (Lawler 1997). It applies to "the norm of a species over its individuals" (Lawler 1997), but may also leave ample room for exceptions. Let us consider uses of the proportional generic in which a small, but salient, proportion of individual members is sufficient to generalize about a type as a whole. Sentence (15a) was already cited as (9c), and sentences similar to (15b) are discussed in Nickel (2005: 9), Carlson (1980: 40) and Krifka et al. (1995: 44).

(15) a. Finns always do well in ski-jumping competitions.

b. Mosquitoes carry plasmodia.

In sentence (15a), the bare plural *Finns* does not refer to the set of all Finns but is understood as referring to the subset of Finnish ski-jumpers that participate in international competitions, i.e., *Finns* metonymically stand for Finnish ski-jumpers. In international competitions, Finnish ski-jumpers tend to outperform other nationalities, i.e., the proportion of Finns that do well in ski-jumping competitions is larger than that of other nationalities within the overall reference mass of ski-jumpers world-wide. Finnish ski-jumpers thus represent the larger proportion within the reference mass of international ski-jumpers, i.e., their larger proportion is in conformity with the other cases of the proportional generic. The same analysis applies to another of Chesterman's examples, *Italians make fine furniture*. The subject *Italians* metonymically stands for Italian cabinet-makers and, among the cabinet-makers of different nationalities, Italians are known as the ones who make particularly fine furniture, i.e., they represent the larger proportion within the reference mass of cabinet-makers world-wide.

Sentence (15b), *Mosquitoes carry plasmodia*, exhibits a more intricate conceptualization and needs to be analyzed in some more detail. Plasmodia are blood parasites that cause malaria—people normally speak of "mosquitoes carrying malaria" and I do so here as well. Most mosquitoes do not carry malaria; therefore, the bare plural *mosquitoes* does not refer to a larger proportion of mosquitoes. However, the sentence *Mosquitoes carry malaria* is not understood to mean that the smaller proportion of mosquitoes is malaria-carrying. It might much rather be

understood to mean that mosquitoes *can* carry malaria,[18] i.e. in the sense of an intrinsic possibility, which can be paraphrased as 'it is possible for mosquitoes to carry malaria'.[19] This meaning would be derived by way of the metonymy ACTUAL FOR POTENTIAL or GENERIC FOR POTENTIAL. In the metonymic reading the generic referent *mosquitoes* can apply to the larger proportion and hence be compatible with *most*: *Mosquitoes carry malaria, in fact most of them do*. However, we still feel that this paraphrase does not fully capture the meaning conveyed by the generic sentence. We are much more concerned with the risk of being infected with malaria by a mosquito than with the actual proportion of mosquitoes that can carry malaria. In fact, their proportion is grossly magnified when we think of mosquitoes as transmitters of malaria. A smaller subset thus becomes highly salient and, in overriding quantitative aspects of a proportion, licenses the use of the proportional generic. As transmitters of malaria, mosquitoes are more dangerous to our health than any other insect.[20] This interpretation is, of course, based on world knowledge. If the same pattern were applied to other kinds of species, as in *Cats carry fleas*, we might prefer a purely quantitative interpretation of the proportion, i.e., 'most cats carry fleas'.

The proportional generic has the widest range of application among the four types of generic reference. It is used to generalize about a larger or otherwise salient proportion or a type, it may be coreferential with individuative referents (as in *Hedgehogs are shy creatures but often visit my garden*), it applies to non-human and human referents, and, when applied to humans as in *Americans are patriotic*, it is felt to be much less stereotypical or prejudicial than the representative generic. These properties of the proportional generic result from its conceptual

basis. The profiled instance is an indefinite plural and hence denotes an indeterminate magnitude of elements ranging from at least two elements up to a full set. The INSTANCE metonymically evokes its TYPE, and the magnitude is understood to represent a salient proportion of the type's reference mass. The proportion is equivalent to a prototypical subtype, i.e., extensional units (set and subset) and intensional units (type and subtype) interact. The proportional generic may give the false impression that it is a form of individuative reference. It is a type of generic reference, but the generalization it conveys is based on individual entities and hence allows exceptions much more readily than any of the other types of generic reference.

3. Definite singular: Kind generic

3.1. Individuative and generic definite singulars

Definite reference is inclusive. In Hawkins' (1978: 160) words, "the reference must be to the totality of objects or mass, whatever the number or size of this totality." With individuative singular referents, the inclusive totality of objects amounts to a single instance. In asking the question *Can you see the lion?*, the speaker has one particular lion in mind and assumes that the hearer can also establish mental contact to this referent.

In generic reference, the definite singular directly refers to a type, or kind. Its inclusive totality also amounts to a single instance: the type as such. Thus, the speaker who informs us that *The lion is a predatory cat*, refers to the species 'lion' as a single instance and assumes that the

hearer is able to establish mental contact to the type—hence its definiteness. This type of generic reference is described as **kind generic**.

3.2. Reference to a kind

The kind generic is often considered the only true expression of generic reference. As shown in (4c), definite singulars are readily compatible with 'kind predicates'. The kind generic is also unique among the generic types of reference in that it preserves its generic force irrespective of its position in the sentence. Thus, the definite singular NP refers to a generic type in both subject position (16a) and object position (16b).

(16) a. *The chimpanzee* is critically endangered.

b. The loss of habitat endangers *the chimpanzee.*

The following set of examples from Quirk et al. (1985: 5.5.2) illustrates the referential behavior of different types of noun phrases in object position:

(17) a. Nora has been studying *the medieval mystery play*.

b. Nora has been studying *a medieval mystery play*.

c. Nora has been studying *medieval mystery plays*.

Only the definite singular NP in sentence (17a) can generically refer to mystery plays as a genre; the indefinite NPs in (17b) and (17c) refer to one or several individual mystery plays, respectively.

The type interpretation of *the chimpanzee* in (16a) and (16b) is coerced by the kind predicates, whereas the type interpretation of *the medieval mystery play* in (17a) is due to the semantics of the noun: a mystery play, and even more so a medieval mystery play, is what Krifka et al. (1995) call a 'well-established kind'. The noun phrases *the map* or *the paper* in *Nora has been studying the map/the paper*, by contrast, would not be interpreted as referring to a type but to a definite individual instance. A map and a paper are thus not seen as well-established kinds. Krifka et al. (1995: 11) illustrate the difference between a well-established and not-established kind with the following examples:

(18) a. *The Coke bottle* has a narrow neck.

b. ??*The green bottle* has a narrow neck.

A Coke bottle, but not a green bottle, is well established as a kind of bottle in the Western world. Sentence (18a), therefore, describes an acceptable generic statement while sentence (18b) does not. The use of kind generics in English is thus governed by the language user's assessment of the extent to which a category is well established in the culture. Why should this fleeting distinction between well-established and little or not established kinds be relevant for generics?

Before exploring the constraints delimiting well-established kinds in sections 3.3 and 3.4, I look first at the conceptual basis of kind-referring NPs.

3.3. Blending of instance and type in kind generics

Reference to a type abstracts away from the individual instances that establish a type. However, this does not mean that individual instances are irrelevant in our conception of a generic type. As pointed out in section 0.2, we typically comprehend categories in terms of one of the metonymic models proposed by Lakoff (1987). This, of course, applies to generic types as well. Psychological accounts of the definite singular generic are already found in the work of earlier grammarians: Jespersen (1949: 492) speaks of "a more or less vague image of one member of the species in question" and assumes that "this is somehow taken as representing the whole species." Christophersen (1939: 76–77) holds a similar view in his analysis of the generic sentence *The lion is the king of beasts*: "we imagine for a moment that there is only one lion, which is in itself the whole species", and "the species is thought of as a unit appearing in a shape of one of its members".[21] The individual and generic uses are united in one form and "the distinction between the two is no longer possible" (31).

In present-day terminology, Jespersen, and even more so Christophersen, could be said to propose a blending analysis of the definite singular generic. A blending approach to generic statements such as *The lion is a carnivore* has already been suggested by Coulson and Oakley

(2003: 61); however, they do not spell out the details of such an analysis. A conceptual account of this sentence in terms of blending theory might take the following form:

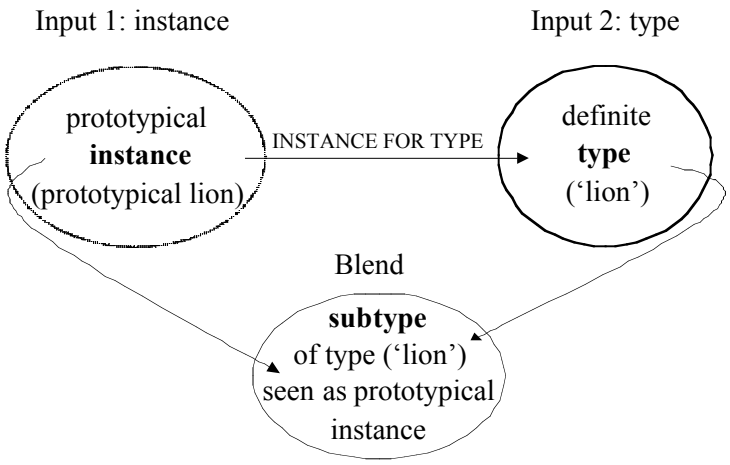

Figure 3. *Kind generic*: The lion (is a carnivore)

The definite type is the profiled referent and therefore printed and encircled in bold. The type evokes a prototypical instance of a lion. The prototypical instance is purely conceptual in nature and, by way of the metonymy SUBCATEGORY FOR CATEGORY, or INSTANCE FOR TYPE, discussed in section 0.2, enables us to comprehend the type. The blend inherits the contents of both input spaces so that the notions of the type and its prototypical instance are co-present and fused in the blend. The profiled type predominates conceptually and linguistically: we are thinking and talking about the species 'lion', not about a prototypical lion, and express the idea in a structure (present tense, predicate nominal) that typically conveys genericness. The kind generic and the representative generic look alike in that both are singular in form. However, their

conceptualizations are fundamentally different. In kind generics (Figure 3), the generic type is profiled and prominent while the instance is metonymically evoked and only vaguely present. In representative generics (Figure 1), by contrast, the individual instance is profiled while the generic type is metonymically evoked.

The kind generic is used in different types of sentences and may evoke its prototypical instance to different degrees. The categorization of sentences such as *The lion is a carnivore* probably imposes the image of an individual instance to a lesser extent than eventive sentences like those under (19). Here, it is nearly impossible to imagine a type without visualizing an individual instance of the type.

(19) a. *The tiger* roams the jungle.

b. *The panda* eats bamboo leaves.

c. *The albatross* lays one egg: it is white, with a few spots, and is about four inches long.

These sentences describe the characteristic and habitual behavior of a species. Only real, live tigers, pandas, and albatrosses, not an abstract species, can roam the jungle, eat bamboo leaves, and lay eggs. Here, the behavior of individual instances is part of our conceptualization of the type of animal. The sentences in (19) take a midway position between characterizing sentences such as (1a), *A lion has a bushy tail*, and kind-referring NPs as in (1b), *The lion is a predatory cat*. They characterize a species but, like kind-referring NPs, do not allow for exceptions, i.e.,

sentences such as **The tiger roams the jungle, but some tigers do not* are ruled out. The generalization about egg-laying albatrosses in sentence (19c), however, applies only to female birds and, strictly speaking, half of the population would be excluded. In our ordinary conception of an animal species, however, a distinction between male and female members is not relevant—the prototypical albatross is sex-neutral. In using the kind generic, the speaker is concerned with types as part of the structure of the world. As phrased by Lawler (1997), the use of the definite singular generic signals to the hearer "that the speaker is theorizing."

The use of the kind generic in English is highly constrained. The following two sections attempt to specify and explain the relevant constraints on a conceptual basis. Two constraining factors are especially important: the position of the kind within a taxonomic hierarchy and its position within the cultural hierarchy of things.

3.3. Position of the kind within a taxonomic hierarchy

The kind generic is normally not used with superordinate terms such as 'bird', 'mammal', or 'instrument' and only rarely used with basic-level terms such as 'tree', 'house', or 'table'. Thus, the generic statements (20a) and (20b) sound odd with a definite singular subject—they could, of course, be expressed by other forms of generic reference: *Birds build nests*; *A tree has a trunk and branches*, etc. By contrast, generic statements with subordinate terms as in (20c) and (20d) are fully acceptable.

(20) a. ??*The bird* builds a nest.

b. ??*The tree* has a trunk and branches.

c. *The long-tailed tailor bird* builds its nest out of leaves.

d. *The cherry tree* has a brown trunk, green leaves, and red cherries.

The notion of a well-established kind not only involves cultural entrenchment of the type but obviously also well-defined categoryhood so that the image of a prototypical member can be evoked. Superordinate categories such as 'bird' are internally heterogeneous and poorly defined. Most crucially, however, superordinate terms already constitute the highest taxonomic types and hence cannot be defined relative to a higher type. Basic-level terms such as 'tree' are the most informative categories and evoke rich images; still, they are normally not used as kind generics possibly because we are well familiar with them and hence not much more can be said about them as types. The "best" types to be referred to by the kind generic are subordinate categories. Subordinate terms are defined relative to well-known basic-level terms. They are thus accessible to us and can be expressed as definite entities. Most importantly, however, subordinate terms are well-delimited categories and speakers can impart a wealth of information about them. The following description of a kind of albatross nicely illustrates shifts of generic reference according to the position of the type in the taxonomy:

(21) Of the thirteen kinds of albatrosses, *the black-browed albatross* is one of the smallest. Despite being called "gooneys" or "mollymalks" by sailors because of

> their clutsy landings, *albatrosses* are amazing and beautiful in the sky. *The black-browed albatross* lives a roaming life over the sea, flying thousands of kilometers before setting foot on land, so being an excellent and efficient flyer is a must.

The subordinate category 'black-browed albatross' in the first sentence is referred to by the kind generic, the basic-level category 'albatross' in the second sentence is described by the proportional generic, and the subordinate category 'black-browed albatross' in the third sentence is again referred to by the kind generic.

The taxonomic level of a type is an important factor motivating the choice of generic reference but is, of course, not the only one. Thus, after several uses of *the black-browed albatross* in the above excerpt, the author switches to the bare plural in the sentence *Black-browed albatrosses will keep their nests a regular distance apart—1.55m—that's exactly how close they can get before making each other angry.* Here, the image of individual albatrosses keeping their nests at a distance from each other predominates and determines the choice of the bare plural. Another factor motivating the choice of the generic construal is the position of the kind within the Great Chain of Being.

3.4. Position of the kind within the Great Chain of Being

Lakoff and Turner (1989: 166) define the Great Chain of Being as "a cultural model that concerns kinds of beings and their properties and places them on a vertical scale." The highest

kinds of being on this ontological scale are humans, followed by animals, plants, complex objects, and natural physical things. Generic kinds in the definite singular display very different behavior on each of these levels of the hierarchy, as illustrated in the following examples:

(22) Humans

a. ?*The girl* plays with dolls.

b. *The customer* is always right.

(23) Animals

a. *The dog* is an extremely social animal.

b. *The tiger* hunts by night.

(24) Plants

a. ?*The rose* has thorns.

b. *The tea rose* is native to China.

(25) Complex objects

a. ?*The table* has a flat top and legs.

b. *The computer* has changed our lives.

(26) Natural physical things

a. **The mountain* is high.

b. *The sea* is a complex ecosystem.

3.4.1. Humans

Humans have, in addition to lower-order properties, higher-order properties such as intelligence, emotions, morality, etc. As a result, humans tend to be individualistic and vary from person to person and hence can hardly be generalized about. The use of the kind generic in sentences such as *?The girl plays with dolls* or *?The Italian loves pasta* therefore sounds inappropriate: it makes us see girls or Italians as a species-like kind. In section 1.4 I observed similar constraints on the representative generic when used with human subjects. The constraints on human generics are related, but viewed from a different perspective. In section 1.4 we saw that the representative generic is typically construed with attributes that are seen as essential, and when it is used with humans it tends to give rise to stereotypical associations, as in (8a), *??An Italian is a football fan*. Both the kind generic and the representative generic can however be freely applied to people with respect to the roles they hold in society, especially their professions. Thus, sentence (22b), *The customer is always right*, is a well-formed generalization because people in their role as customers form a well-defined group. Likewise, the use of the representative generic in *A customer is always right* is acceptable because 'being always right' is an essential attribute the Western business world associates with customers.

3.4.2. Animals

The highest properties of animals are instinctual properties, which are assumed to be shared by all members of an animal species and hence are fairly predictable. An animal species thus establishes a well-defined category and can be generalized about by means of the kind generic,

as in (1b), *The lion is a predatory cat*, (23a), *The dog is an extremely social animal*, and (23b), *The tiger hunts by night*. More than any other kind in the Great Chain of Beings, animals are commonly generalized about by using the kind generic, at both the basic and subordinate levels. This may be due to the importance we attach to animals as our closest relatives. We have a vested interest in categorizing the animal kingdom and, in characterizing a species, often make use of human attributes. For example, in its entry for *dog*, the *Encyclopedia Britannica* lists the following attributes of the generic dog: *The dog, in many of its breeds, is basically a wolf-like hunter* [categorizing], *The dog is an extremely social animal* [human attribute], *The dog figures prominently in many tales of courage* [human relevance], etc.

3.4.3. Plants

Plants are characterized by botanical properties. These are stable attributes and should be useful for classificatory purposes. Yet, the definite singular is rarely used in generalizing about plants at the basic level. Sentences such as (20b), *?The tree has a trunk and branches*, and (24a), *?The rose has thorns*, sound odd. In our folk taxonomies of plants, basic-level kinds of plants are apparently felt to be less distinct, less relevant, and less interesting to us than basic-level species of animals. At the subordinate level, however, kinds of plants are well defined by distinctive botanical properties and are readily expressed by the kind generic, as in (20d), *The cherry tree has a brown trunk, green leaves, and red cherries*, and (24b), *The tea rose is native to China*.

3.4.4. Complex objects

Complex objects are typically man-made artifacts and characterized by structural and functional attributes. Purely structural attributes are not considered relevant in distinguishing kinds of complex objects. Thus, the kind generic is normally neither used to describe kinds at the basic level, as in (25a), *?The table has a flat top and legs*, nor kinds at the subordinate level, as in *?The picnic table is easy to make*. Functional attributes, on the other hand, are distinctive and define the kind of complex object, as in *The dynamo recharges the battery*. A unique property of artifacts is their invention or introduction and the impact it has on humans. Thus, the kind generic is commonly used in "theorizing" statements such as *The sonnet originated in the 13th century* and (25b), *The computer has changed our lives*.

3.4.5. Natural physical things

Natural physical things are characterized by natural physical attributes. They normally do not come to us as a kind that we want to generalize about. Thus, sentences like (26a), **The mountain is high*, or **The rock is hard* are normally not used as generic statements. However, a theorizing context also licenses the use of the kind generic, as in *The sea is a complex ecosystem which includes thousands of seabirds, countless species of crustaceans and fish, water plants, etc*.

3.5. Summary

The kind generic profiles a type directly and hence can be regarded as a true expression of genericness. Our conception of a type, however, is based on that of a prototypical individual instance of the type. Conceptually, the kind generic thus also involves the INSTANCE FOR TYPE metonymy. The use of the type generic is highly constrained: it applies to culturally well-established kinds. In taxonomic hierarchies, well-established kinds are typically found at the subordinate level, and in the hierarchy of the Great Chain of Being, they are typically found at the level of animals. Due to their individuality and variability, humans are, as a rule, not seen as forming a kind and hence are not, apart from their function in roles, generalized about by use of the kind generic.

4. Definite plural: Delimited generic

4.1. Individuative and generic definite plurals

Hawkins (1978: 159–162) illustrates the inclusiveness of the individuative definite plural in the utterance *Bring the wickets in after the game of cricket*. Here, the speaker would not be satisfied if the hearer brought him only four or five of the six wickets. The definite article refers to all objects in a pragmatically delimited set, excluding none of them.

The generic definite plural *the Italians* in *The Italians love pasta* also invokes a pragmatically delimited set within a domain: it is understood as referring to "those individuals of Italian parentage who currently inhabit Italy" (Hawkins 1978: 217). Within this delimited set in

the domain of parentage and residence, the generic reference is inclusive, i.e., it is understood as not excluding any individual of Italian parentage who currently inhabits Italy. The bare plural as in *Italians love pasta*, by contrast, does not involve a similarly delimited set: it refers to Italians in general, i.e. 'anyone who either is, has been, or will be an Italian'. As pointed out by an anonymous reviewer, the set described by *the Italians* may also refer to sets of Italians other than those who currently inhabit Italy, as in *During World War II, the Italians were the largest immigrant group in the U.S.* Here, the spatial (*the U.S.*) and temporal adjuncts (*World War II*) provide clues about the delimited set. In both situations, the function of the definite plural in generic reference is to imply a delimited set within a given pragmatic context. The definite plural generic can, therefore, be described as **delimited generic**.

In *The Italians love pasta*, the entities included in the delimited set are individuals. The entities included in a delimited set can also represent a subtype of a type. In this usage, the delimited generic applies to the level of types in the same way that kind generics do. Chesterman (1999: 36) gives the following example of this use:

(27) Among *the lizards*, iguanas are the most popular as a local food.

The NP *the lizards* in (27) refers to the 'family of lizard-types', one of which is the subtype 'iguana'. The superordinate type 'lizard' remains unmentioned but is, of course, easily inferred. The type 'lizard' represents the delimited set and, due to the inclusiveness of the definite plural, includes all subtypes of lizards in the set. We may, therefore, also describe the full set by using

the collective quantifier *all*: *Of all lizards, iguanas are the most popular food*. With respect to its extension, the delimited generic (*the lizards*) is thus equivalent to the kind generic (*the lizard*). However, the delimited generic profiles a subtype and invokes the type, whereas the kind generic profiles the type directly.

The use of the delimited generic at the level of types as in (27) is, in principle, not restricted to any particular domain, but is nevertheless used fairly infrequently probably because it competes with two more direct construals, i.e. those with the quantifier *all* and the kind generic. At the level of individual instances, the use of the delimited generic is more common, but it is in English almost exclusively restricted to human referents, as in *The Italians love pasta*.

Both types of the delimited generic, i.e. the generic involving individuals and the generic involving subtypes, require a set within a given domain that delimits the generic reference mass. The set is an aspect of meaning that emerges in conceptual blending.

4.2. Blending of instance and type in delimited generics

The example *The Italians love pasta* is used to illustrate the process of blending with delimited generics. Input space 1 contains a definite plural instance, 'the Italians', and input space 2 the type evoked by the instance, 'Italian'. In individuative reference, the definite plural instance is inclusive; in generic reference, it is made inclusive in the blended space by delimiting its set of entities. The delimited set represents a subtype of the type: Italians of Italian parentage who

currently inhabit Italy. These Italians are probably considered prototypical members of the category 'Italians'.

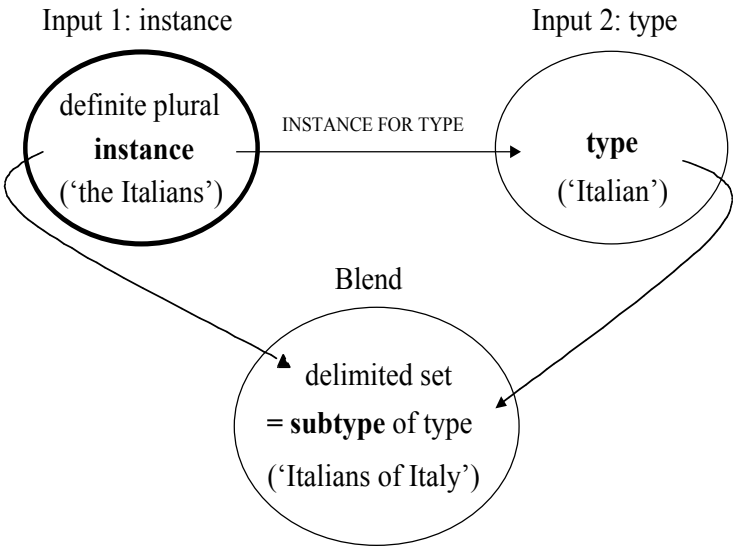

Figure 4. *Delimited generic*: The Italians (love pasta)

The information conveyed by the generic blend is to be read as follows: The definite plural generic refers to a delimited set of individuals within a domain (individuals of Italian parentage who currently inhabit Italy) that represents a subtype of prototypical members of a type ('Italian'). The delimited set is construed as inclusive, i.e. as encompassing the totality of its individual members. It would therefore be contradictory to say, *The Italians love pasta* $^{\#}$*but many/some/a few of them don't*. Chesterman (1991: 193) argues that "inclusiveness of *the* must often be read as pragmatic rather than strictly logical". According to this view, pragmatics accounts for the fact that *The Americans have reached the moon* does not mean that all

Americans have reached the moon. However, the pragmatic interpretation is guided by metonymy: *the Americans* stands for the set of astronauts of spaceship Apollo or for the set of NASA personnel that succeeded in launching the spaceship; the achievement verb *reach* is also understood metonymically in the sense of an accomplishment: NASA personnel spent years in preparation before launching the spaceship.

4.3. Uses of the delimited generic

In English, the use of the delimited generic is restricted to humans. Non-human subjects in the definite plural are not understood in a generic sense. Thus, in *The dogs are social animals* and *The paintings are fun to look at*, the referents *the dogs* and *the paintings* describe individuative instances. More specifically, the delimited generic is restricted to sets of well-established human groupings within certain domains such as nationalities, politics, religion, etc. Thus we speak of *the Americans*, *the Democrats*, and *the Catholics*. Humans that do not form a well-established group are only understood in an individuative sense, as in *The women are the stronger sex* and *The boys don't cry*. These interpretations are coerced by the definite plural construction, since the predicates themselves strongly suggest generic readings, as can be seen from their uses with bare plurals in *Women are the stronger sex* and *Boys don't cry*.

In English, reference to well-established human sets is also achieved by uninflected nominalized adjectives taking plural agreement, as in:

(28) a. *The young* are taking over now.

b. *The hungry* suffer most.

The nominalized adjectives describe properties that define human groups having this property, i.e., they involve the metonymy PROPERTY FOR A THING THAT HAS THE PROPERTY. The use of adjectives is particularly well-suited to express delimited generics because the properties they describe are associated with a specific domain: 'young' relates to the domain of 'age', 'hungry' to the domain of '(crave for) food', 'blind' to '(lack of) vision', etc. The properties defining a human group relative to a certain domain are permanent and salient. Youth, blindness, poverty, unemployment, obesity, etc. are more or less permanent properties. Hunger is experienced by most people as a temporary feeling but unfortunately is a permanent state for almost a billion people. It is these people that are referred to as *the hungry*. Thirst, happiness, or eagerness, by contrast, are only experienced as temporary states and hence are not used to characterize human groupings. Their generic uses are, therefore, ruled out, as in **The thirsty suffer*, **The happy live long*, **The eager come first*, etc.

The generic groups described by nominalized adjectives are characterized mostly by negative properties such as *the unemployed*, *the needy*, *the illiterate*, *the uneducated*, etc. These properties are more salient than their positive counterparts since the disadvantaged groups characterized by such properties are in need of humanitarian aid, assistance, or other urgent social action. Positive properties are, of course, also used in defining generic groups, but they

tend to occur in contrast to their salient negative antonyms, as in *the rich and the poor*, *the employed and the unemployed*, etc.

4.4. Motivation of the delimited generic

To conclude the discussion of the delimited generic, I consider some issues regarding its motivation. Why is the use of the delimited generic so heavily constrained? Due to its constraints the delimited generic is not even included in some treatments of English generics. Nonetheless, the delimited generic does fulfill important ecological functions within the English system of reference.

First, the definite plural is available as a fourth structural option to express a type of generic reference. It is, therefore, to be expected that language users make use of this possibility and associate the definite plural generic with a specific meaning of its own.

Second, as Table 1 reveals, three of the generic construals are freely compatible with non-human referents, but only two with human referents: the proportional generic and the delimited generic. Recall that the representative generic as in *?An Italian loves pasta* is ruled out because an arbitrary human does not normally represent the essence of a whole type, and the kind generic as in *?The Italian loves pasta* is ruled out because humans are too individualistic to form well-established kinds. Without the delimited generic the English system of generics would be unbalanced: it would only provide one generic construal, the proportional generic, to generalize about humans.

Third, the generic concept expressed by the delimited generic is needed in opposition to the generic concept conveyed by the proportional generic. While the proportional generic generalizes on the basis of a salient proportion of entities, the delimited generic generalizes on the basis of a restricted set within a domain, and while the former applies to vaguely defined classes, the latter applies to well-established groupings. The following examples illustrate these differences:

(29) a. Americans are tolerant.

b. The Americans are tolerant.

The proportional generic in (29a) refers to the majority of Americans wherever they happen to live. This generalization sounds more appropriate than the one expressed by the delimited generic in (29b), which only refers to those Americans that live in the United States. Conversely, the use of the delimited generic in (30a) sounds more felicitous than that of the proportional generic in (30b).

(30) a. The Americans are our best friends, whether we like it or not.

b. Americans are our best friends, whether we like it or not.

The generalization expressed by the delimited generic in (30a) is understood as applying to the inhabitants of the United States. The sentence was, in fact, uttered in the Canadian House of

Commons by Robert Thompson, the leader of the Social Credit Party, in the 1960s, and this utterance "captured the essence of Canada's difficult relationship with its nearest neighbor."[22] Without the delimited generic, this subtle nuance of generic meaning would not have been conveyed.

5. Summary and conclusion

The types of generic reference and their particular generic meanings are to a large extent motivated by the following four factors:

i. the notions of exclusiveness and inclusiveness
ii. the metonymy INSTANCE FOR TYPE
iii. the metonymy TYPE FOR SUBTYPE
iv. the conceptual blending of instance and type

The notions of exclusiveness and inclusiveness apply equally to individuative and generic reference and hence allow us to distinguish indefinite and definite types of generic reference and motivate their meanings. The metonymy INSTANCE FOR TYPE evokes the generic type. The metonymy TYPE FOR SUBTYPE serves to restrict the generic referent to prototypical members of the type and thus accounts for the fact that generic reference normally allows for exceptions. The

conceptual blending of instance and type fuses their input meanings and gives rise to emergent meanings.

The four types of English generic reference are summarized in Table 2 with their forms, their exclusiveness or inclusiveness, and their meanings.

Table 2. Types of generic reference

	generic type	generic form	ex-/inclusiveness	generic meaning
(a)	representative generic	indefinite singular	exclusive	arbitrary instance representing its type
(b)	proportional generic	indefinite plural	exclusive/ inclusive	salient proportion of the type's reference mass
(c)	kind generic	definite singular	inclusive	prototypical subtype of a well-established type
(d)	delimited generic	definite plural	inclusive	delimited human set within a domain

(a) The representative generic profiles a single indefinite instance, as in *A lion has a bushy tail*. The instance is exclusive in presupposing more than one entity. It evokes a type ('lion') by way of the INSTANCE FOR TYPE metonymy. In the blend, an arbitrary instance of the type represents the type. The type is characterized by essential and defining attributes. The representative generic applies to the subtype of prototypical members and hence allows for exceptions.

(b) The proportional generic profiles a proportional indefinite instance. The proportion is typically exclusive, as in *Hedgehogs are shy creatures*, and more rarely inclusive in referring to all entities of a 'constructed' kind, as in *Horses are mammals*. The instance evokes its type by

way of the INSTANCE FOR TYPE metonymy. In the blend, the profiled proportion represents the subset of entities relative to the reference mass of the type and, at the same time, is understood as a subtype of prototypical members. The proportion referred to by the proportional generic is typically the larger set or is salient in some other respect.

(c) The kind generic profiles a single definite type, as in *The tiger hunts by night*. The type is inclusive and represents a well-established kind—hence its definiteness. The kind is, however, constrained with respect to the level within its taxonomy and the Great Chain of Being. The type is comprehended in terms of a prototypical instance via the INSTANCE FOR TYPE metonymy. The kind generic allows for exceptions, as in *The albatross lays one egg*, and may thus also involve the TYPE FOR SUBTYPE metonymy.

(d) The delimited generic profiles a plural definite instance, as in *The Italians love pasta*, or a family of subtypes of a type. The definite generic is inclusive in that it applies to a delimited set within a certain domain. Thus, the set of pasta-loving Italians is delimited by the domains of parentage and residence. The delimited generic mainly applies to well-established human groups. In English, such human groups are also expressed by nominalized adjectives, as in *the poor*. Here, a defining property is metonymically used to stand for the group that has this property.

To conclude this chapter, I have tried to show that new insights into the grammar of generic reference in English can be gained by the use of analytical tools developed in Cognitive Linguistic theory, in particular, conceptual metonymy and conceptual blending.

Notes

* I would like to thank Klaus-Uwe Panther and Susannah Ewing-Bölke for their insightful comments on this paper.

1. Generic readings tend to be associated with the copulative construction with an indefinite predicate nominal as in *The lion is a predatory cat*; characterizing predicates as in *Frogs are clever*—as opposed to eventive predicates as in *Frogs are awake* (Carlson, cited in Nguyen Thu, 2005); topical as opposed to non-topical elements; the timeless simple present—although other tense forms and the progressive aspect are not incompatible with a generic reading, as in *Dinosaurs ate kelp* (Lyons 1999: 189) and *Tigers are becoming extinct*; mass nouns; and certain adjuncts, as in Lyons' (1999: 190) examples *Cats mess in the open air*, which is understood generically, as opposed to *Cats mess in my garden*, which is most naturally understood non-generically.
2. See also Chesterman (1991: 33), who presumes that "each so-called generic article seems to impart to the generic reading of the NP a particular nuance of its own." Other scholars of genericity, e.g. Vogel and McGillion (2002), assume that the conceptual distinctions of generics are independent of their forms.
3. See Dahl (1995: 425) and the online *Linguist List* of 6 April 1994. Genericity is, however, often minimally marked with respect to tense and aspect but, when a language has a form marking generics, this form is also used in non-generic contexts.
4. The metonymy INSTANCE FOR TYPE (or SPECIFIC FOR GENERIC) is motivated by one of the cognitive preference principles governing the choice of a metonymic vehicle: SPECIFIC OVER

GENERIC. Specific instances form better gestalts than general entities and tend to be concrete, immediate, and occurrent (Radden & Kövecses 1999).

5. Here I follow Langacker's (1991: 81) proposal that "every nominal profiles a single instance of some type". The distinction between one and several discrete entities, as described by singular and plural count nouns, is a matter of different categories, or types, not a matter of different instances. To distinguish the two types of instances, I call an instance of a discrete singular type a *single instance*, and an instance of a discrete plural type a *plural instance*.
6. The representative-instance quantifier *any* and the representative generic *a(n)* differ in at least two respects. The speaker using the quantifier *any* selects one random element of a set, while the speaker using the generic article *a(n)* conjures up an arbitrary indefinite instance of a type. Thus, *Any alligator has a strong bite* could be paraphrased as 'whichever alligator you choose among the set of alligators, it has a strong bite'; by contrast, *An alligator has a strong bite* might be paraphrased as 'a prototypical alligator has a strong bite'. Secondly, *any* and *a(n)* make different assumptions about the entity they invoke: the quantifier *any* invokes a full set, defined by the extension of its individual members, while generic *a(n)* evokes a type and, as pointed out above, metonymically a subtype of prototypical members. Thus, in the example *An alligator has a strong bite*, toothless alligator babies would be excluded. See also Burton-Roberts' (1976) extensive discussion of generic *a* and the quantifier *any*, in which he provides many examples showing that the quantifier *any* cannot replace the generic

article *a(n)*: for example, *A beaver is an amphibious rodent* cannot be substituted by **Any beaver is an amphibious rodent.*

7. These examples are discussed in Perlmutter (1970) and Burton-Roberts (1976: 437), who also noticed that the use of *any* in coordinated NPs is ungrammatical: **Any beaver and any otter builds dams*. However, Burton-Roberts' transformational account of their unacceptability is rather far-fetched. For the indefinite generic in *A beaver builds dams* he postulates an underlying structure like 'to be a beaver is to build dams' and claims that the NPs in **A beaver and an otter build dams* cannot be coordinated because their underlying structures cannot be conjoined, as in **To be a beaver and to be an otter are to build dams*.
8. The English indefinite article *a(n)* derives from the numeral 'one' and is still incompatible with plural nouns—unlike the definite article *the*, which can be used with singular and plural nouns.
9. Metonymy is not, as traditionally assumed, a shift in which a literal source expression is substituted by the target. The metonymic source is not erased but still conceptually present; however, the metonymic target is dominant (Panther & Thornburg 2004). For example, in the utterance *The kettle is boiling*, the metonymic source 'the kettle' is still present and might be anaphorically referred to in the reply *Please take it off the burner*. Yet, there can be no doubt that the metonymic target, i.e. 'the water', is conceptually dominant as its intended referent—even if it cannot easily be referred to anaphorically: thus, *#The kettle is boiling; you can pour it into the teapot now* sounds strange.

11. Klaus Panther (p.c.) has noted that the use of *real* makes the use of the representative generic with human subjects acceptable, as in *A real Italian loves pasta* or *A real Italian is a football fan*. In his analysis of the hedge *real* Taylor (1995: 97) observes that *real* "highlights attributes conventionally associated with a frame, while at the same time releasing the category from otherwise necessary conditions for membership. A *real man* exhibits to a high degree stereotyped attributes of masculinity." Since the hedge *real* releases the boundaries of a category and imparts stereotypical meaning to the human referent, generic subjects such as *a real Italian* are fully compatible with stereotypical attributes predicated of them.

11. Nationalities can, of course, be defined by their residence or provenance. For example, the *Oxford English Dictionary* defines an Italian as "someone of or pertaining to Italy or its people; native to or produced in Italy."

12. This is Paul Saka's definition of a linguist in the discussion on "What is a linguist?" on *Linguist List* 10 Oct 1991. Saka also points out that we would hesitate to call Donald Davidson a linguist because the coordinate fact that he is a philosopher is more salient. He also cites the interesting observation made by a discussant that in Chinese and Japanese the closest translation of *linguist* suggests some sort of prestige or fame. Needless to say that people's concept of fairly unknown professions such as linguists varies from person to person.

13. The arguments presented by Burton-Roberts (1976) against the generic status of indefinite plurals include their different behavior in actives and passives and the "cline" between generic and non-specific interpretations, which solely pertain to this type of generic. Thus, the indefinite plural NP *beavers* in the passive sentence *In Canada, beavers are hunted by professionals* would be considered generic but is non-specific in the active sentence *In Canada, professionals hunt beavers*. A cline from generic to increasingly non-generic interpretations can be observed in the sentences *Hyenas haunt African plains*, *Hyenas haunt the Cairo suburbs*, *Hyenas haunt the Nile Street*, and *Hyenas haunt my backyard*.
14. Carlson (1980: 25) provides similar examples of anaphoric coreferences between generic and individuative referents. In sentence (a) below, a generic referent anaphorically refers back to an individuative referent, and, conversely, in sentence (b), an individuative referent refers back to a generic referent.
    a. Bill trapped *eagles* last night even though he knows full well that *they* are on the verge of extinction.
    b. Even though Bill knows that *eagles* are on the verge of extinction, that didn't stop him from trapping *them* last night.
15. The examples are taken from Langacker (1995: 297). The non-progressive sentence (11a) sounds better than the progressive sentence (11b). This is probably due to the fact that we rarely conceive of generic situations holding for a limited duration. The acceptability of sentence (11b) improves if the time adjunct is fronted, as in *These days, cats are dying*

before the age of 15, and even more so if the generic sentence contains a "progressive of increase", as in *With modern medication, cats are living longer and longer*. What matters here, however, is that bare plurals are compatible with the progressive while singular generics are not: **These days the/a cat is dying before the age of 15* or **With modern medication, the/a cat is living longer and longer*.

16. This description follows Langacker's view (1991: 74–81) that, due to their many commonalities, plural nouns are seen as a subclass of mass nouns. They profile a mass consisting of an indeterminate number of discrete entities and are treated therefore as representing one instance.
17. The excerpt is taken from "The cult of institutions" published in the online journal *CUNY Graduate Center Advocate* (http://web.gc.cuny.edu/advocate/MAY05ISSUE/html/May05CultInstitutions.htm).
18. In a Google search, the modal predicate *can carry disease* has a lower frequency than the non-modal predicate *carry diseases* (20,400 hits vs. 51,700), but their uses appear to be more or less identical.
19. The modal quality of genericness probably has a much wider application in accounting for exceptions than can be explored here. Thus, according to Krifka et al. (1995: 61), "the sentence *A lion has a mane* does not make a claim about the closed class of all existing lions, but rather about every ("realistically") possible lion."

20. The contrastive aspect of meaning in *Mosquitoes carry malaria* has been brought to my attention by an anonymous reviewer, who suggested that the sentence might be interpreted in terms of ellipted identifying clauses: 'Mosquitoes are the insects that carry malaria' or 'The insects that carry malaria are mosquitoes'. In naming the higher-order category *insects*, these paraphrases stress the notion of uniqueness of mosquitoes as opposed to other types of insects.
21. The conceptualization invoked by a type may be more complex and involve more than one of its members. Christophersen (1939: 131) gives the example of *the theatre*, which "may, according to circumstances, mean 'the theatrical world', 'dramatic art', or simply 'the hours regularly taken up by theatrical performances every night'."
22. http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1ARTA0001220.

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