The roots of genericity: indefinite singulars Vs definite plurals[1*]

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Generic readings of indefinites have two salient properties : they are rare, occurring mostly in the subject position, and they always come with a modal or law-like flavor. Another well-known property of singular indefinites is that they are, as a default, bound by existential closure. The paper assumes that generic readings of indefinite emerge if and only if the default reading (existential closure) is ruled out by pragmatic or syntactic constraints. In that case, the variable contributed by the indefinite is bound by « universal closure », a mechanism playing also a crucial role in the derivation of plural generics readings.The main thesis is that the strong intuition associating generic indefinites to the expression of analytic truth comes from the pragmatic contexts which rule out the default reading (existential closure), i.e. contexts in which the common ground takes for granted that the predicate cannot help to single out a particular individual. In defense of this view, the paper establishes that if the existential reading is ruled out by a syntactic structure (e.g. French dislocations with ça) , the generic reading comes without any modal flavor, which is a problem for any theory taking this component as a built in feature of indefinite genericity per se.

Key words : genericity, indefinites, plurals, definites, existential closure, analycity

Both indefinite singulars and definite plurals in French have generic readings. By “generic reading”, we mean a reading equivalent to a weak (with exceptions) universal quantification in the absence of any linguistic expression that one would be inclined to translate as a universal quantifier. Generic readings, then, should be carefully distinguished from all forms of overt quantification (over individuals, cases, or events). The working definition given above restricts the kind of genericity addressed in this paper to “I-generics” or what Krifka and colleagues refer to as "characterizing" generics (1995). This definition does not address

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the so-called D-generics, which convey meanings that are not equivalent to a weak universal quantification over a set and instead refer to a kind.

The starting point of this paper is that generic readings of singular indefinites are rare, occurring mainly in the subject position and always with a modal or definitional flavor, as repeatedly indicated in the literature (e.g. Lawler 1973, Burton-Roberts 1977, Cohen 2001, Greenberg 2003).

This observation must be distinguished from what are also commonly called generic readings for other linguistic categories, say plural definite NPs. Plural definite NPs have generic readings in far more contexts than do singular indefinites, and they can easily convey accidental or subjectively assigned properties. This contrast supports the view that generic readings of different kinds of expressions represent a set of similarities between different interpretation processes involving different (although possibly related) form-meaning associations, rather than a single phenomenon. This view is not commonly found in the literature, which instead proposes several different ways of deriving generic readings for different kinds of NPs (e.g., indefinite singulars and bare plurals, BPs) based on a single *ad hoc* apparatus (most often the covert generic quantifier *Gen*).

In this paper, I will show that the roots of genericity for the two categories of French NPs (indefinite singular, IS, definite plural, DP), although they share some feature , rest on rather different bases, a difference which in turn explains the well-known dissimilarities in the meanings and uses of these generic NPs.

The similarities between the considered generic readings will be explained in terms of a device that is needed elsewhere in the form-meaning interface. This device will be called *universal closure* (UC) and conceived as a mechanism comparable to the notion of *existential closure* (EC) introduced by Heim (1982). UC is conceived as weak (meaning *all or most)* unselective universal quantifier with no specific constraint on its quantification domain.

The proposal holds that if UC plays a role in both readings, it plays a different role in ISs and DPs.

1. Some contrasts between indefinite singular and definite plural generics in French

Let us focus on two well-known differences between ISs and DPs.

A. ISs cannot express descriptive generalizations over small D-linked sets.

DPs can be used for quantifying over restricted sets of individuals, as in (1):

(1) La semaine dernière les étudiants de ma classe m'ont envoyé une carte postale.

Last week the students of my class sent me a postal card.

In the same context, ISs cannot be interpreted in the same way:

(2) La semaine dernière, un étudiant de ma classe m'a envoyé une carte postale.

Last week a student in my class sent me a postal card.

Sentence (1) can imply that all of the students sent the card, but (2) cannot.

For an IS to express a generalization over a set of individuals, this set must be maximal; it cannot be an empirically bound subset of individuals.

B. ISs are infelicitous with "accidental" properties.

In the famous example provided by Lawler (1973):

(3) Un madrigal est populaire. Infelicitous

A madrigal is popular.

The puzzling point here is that although one is in principle free to assert what one wants about madrigals (with the only risk being falsity), one cannot use an IS sentence if the property is not "essential" (Lawler's term). Compare this to the following felicitous sentences combining the same predicates:

(4) Tout madrigal est populaire. Felicitous

Any madrigal is popular.

(5) Les madrigaux sont populaires. Felicitous

The madrigals are popular.

There is a strong similarity between A and B. In both cases, if the generic interpretation does not emerge, the only accessible interpretation is an existential interpretation: "there is a N such that…". Only when one forces the interpretation of the sentence as a generalization is it judged to be awkward or ill-formed. On their own, the IS sentences under consideration are correct, but they can only have an existential interpretation.[2]

This view is reminiscent of the basic view of dynamic semantics regarding indefinites: indefinites introduce a mere variable, and if there is no explicit quantifier in the relevant context, they are interpreted by EC (Heim, 1982). Note that genericity, in the restricted sense adopted in this paper, covers cases in which there is no overt quantifier in the context. A simple consequence of this view is that an IS-generic sentence is a context in which indefinites are normally expected to undergo EC. This would make the emergence of the generic interpretation of indefinites something of an exceptional phenomenon as it would happen when there is a compelling reason to block the default mechanism, i.e., EC.

This hypothesis has not been seriously considered, mostly because ISs are used in a real-world context for the strongest generalizations, i.e., the *rules* or *definitions* (see Cohen 2001); for this reason, ISs tend to be seen as the expression of genericity "par excellence", and the idea of genericity as something alien to the very nature of these expressions seems awkward. Nevertheless, it is this line of explanation that I will explore in this paper.

1. Some problems with the covert quantifier *Gen*

[2] It is fair to say that (3) would not be a very natural existential sentence either. I will return to this point later.

Following the dynamic semantics and works by Lewis (1975), Kamp (1981), and Heim (1982), many theories (including Krifka et al. 1995) derive generic readings of ISs by postulating a silent unselective quantifier called *Gen.* The main motivation for doing so is that true generic sentences can be conceived as mere "stylistic variants" (Lewis 1975) of quantified sentences using an adverb of quantification like *always* or *in general.* Although this approach has been the basis of many fruitful implementations for representing generic readings, it has many problems.

First, deriving the existence of a given reading called "generic" by an invisible quantifier called *Gen* for "generic" is not one of scientists' preferred strategies for *explaining* observations.[3]

Moreover, such an approach is committed to holding this invisible quantifier responsible for any feature of and constraint on the considered reading and hence to charging it with many ad hoc peculiarities. For instance, generic readings of indefinites have been observed to be tolerant to exceptions and to come with some sort of "modal flavor" (i.e., they cannot be used for restricted sets or for accidental or subjectively assigned properties; see above). This point has led some scholars to define *Gen* as a modalized version of the universal operator[4], quantifying over any possible world; however, it must also be taken into account that this quantifier tolerates exceptions, which leads to *Gen* being taken either as a weak universal quantifier or as a quantifier over only a subset of the set of possible worlds (e.g., typical or representative cases).

Once such an invisible quantifier is included in the genericity picture, two questions arise:

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[3] The main concern here is not about postulating an interpretation deprived of any overt lexical marker (the "closure" mechanisms, in general, share this property, and I will myself use a closure mechanism), but about postulating a single invisible operator responsible for all the observed properties of some data, and only for these properties.

[4] Among others, Krifka et al. (1995), Asher & Moreau (1995).

1. Is it adequate? Is there such a close parallelism between generic sentences and sentences in the scope of adverbs of quantification?

2. Is it ad hoc? Will this quantifier be useful for deriving other kinds of generic sentences, such as DP generic sentences?

As some authors recently claimed, the answer to the first question is "no". Rimell (2004) has shown that, in English[5], there is a great difference between true generic sentences and their quantified rough paraphrases. The key point is that adverbs of quantification can bind indefinites in many syntactic positions for which there is no accessible generic interpretation, for instance, in the object position[6]:

(6) Mary drinks a beer — Only felicitous with a wide-scope indefinite

(7) Mary usually drinks a beer — Felicitous in the scope of "usually"

An inescapable conclusion is that we should be less confident that generic IS sentences are mere stylistic variants of the corresponding quantified ones. This conclusion weakens the argument for postulating a covert adverb of quantification for deriving IS generics.

It is unclear whether the correct answer to question 2 is "no". The linguistic literature on English debates the following issue: is *Gen* a suitable tool for deriving generics other than IS generics, particularly English bare plurals (BPs)? The answer, of course, depends to a large extent on the precise notion of *Gen* one is using, which explains that it may vary.

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[5] In French, simple present accepts either episodic or habitual reading (in contrast to English), but it is very difficult (as in English) to get a generic reading for an indefinite in the object position. Even for stative verbs, a generic reading of the IS object is not accessible : "Pierre aime une femme" (Pierre loves a woman) cannot be interpreted with a generic reading of the object IS. Note that DPs in the same context are fine as generics : "Pierre aime les femmes" (Peter loves the women).

[6] " The key fact is that [sentences without an overt adverb of quantification] do not allow indefinite objects with a generic interpretation:
Mary drinks a beer. (infelicitous as generic)." From Rimell (2004).

Several authors highlight the many differences between ISs and BPs in their generic readings. They put the burden of deriving the pecularities of ISs generics on a covert operator *GEN*, conceived as an inherently modal operator, and state that this operator does not play any role in the derivation of BPs generic readings. The claim that the modal *Gen* operates only for IS generics has been made by Krifka (1987) and Dobrovie-Sorin & Laca (1996). Such a claim is reinforced if one is able to provide a plausible separate derivation for BP generics.

It is often suggested that all BP generic readings are kind-denoting readings. This proposal is rather difficult to accept for the corresponding DPs in French, because there is a continuum between D-linked and non-D-linked definites. Consider (8):

(8) Les étudiants sont paresseux.

The students are lazy.

The sentence (8) can be used for the students in my class, the students who attend my university, or any possible student. A good theory should capture the fact that these interpretations are similar in nature, and one may be skeptical about the thesis that D-linked DPs (*les étudiants* = the students of my class) are best analyzed on the basis of a kind-denoting interpretation.

It is nevertheless sound to concede that in denying that anything comparable to *Gen* be assumed for deriving DP generics, one must at least provide some sort of plausible derivation for these generics to explain the similarities and differences between IS and DP generics.

Greenberg (2003:58) objects to the view that modality *per se* cannot derive the peculiarities of ISs generics, the fact that they cannot be used for expressing bizarre or very subjective rule. She objects that one can perfectly use, in general, modal sentences for expressing any judgment (even bizarre or unreasonable). I think that this argument is compelling, which leaves open two options:

(i) Modality plays no role in the derivation of IS sentences.

(ii) Modality plays a role in the derivation of IS sentences, but is not the key of their unique properties.

Greenberg takes the (ii) option, and adds some extra-constraint, (the "in virtue of" requirement") as the source of the pecularities of ISs.

In this paper, we explore the (i) option, which means that we do not assume that IS sentences are modal by nature. They are just taken to be unspecified for the domain of quantification of UC, and the modal flavor is obtained otherwise.

Roughly speaking, if the *Gen* quantifier itself has the burden of explaining the peculiarities of IS generics (i.e., their modal flavor), it is hard to say how this quantifier might be a good tool for the derivation of generic readings for a category (DP) that, in general, does *not* have these peculiarities. Greenberg (2003) can be viewed as a try for solving the problem by using two different versions of *Gen* for BPs and ISs.

Yet the assumption that something close to *Gen* is responsible for the generic reading of DPs in French raises problems that are even more apparent than they are for BPs. It may seem harmless to see BPs as "indefinite expressions which introduce variables in the semantic representation"[7], a widely held claim following Greenberg (2003) that refers to Wilkinson (1991), Krifka (1995), Chierchia (1995), and a claim Greenberg adopts in her own theory[8]. However, it is much more difficult to import such a theory for deriving the interpretation of the corresponding (morphologically) *definite* DPs in French. The thesis that BPs are indefinites (mere variable introducers) is just a theory (and may thus be true or false), but the thesis that French DPs are *indefinites* appears to be a straight violation of the principle of compositionality. Moreover, the claim that Romance DPs are true definites explains some

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[7] Greenberg (2003: 129)

[8] Because of space considerations, I cannot delve deeper into the discussion of the unitary analysis of IS-BP generics by Greenberg (2003), i.e., an analysis in which a modal *Gen* applies for both, with both being analyzed as variable introducers. The discussion would take time since Greenberg's approach actually makes use of two different *Gen* operators.

typical properties that they don't share with BPs, as emphasized by the cross-linguistic approach of Dayal (2004, 2009). Dayal insists that romance DPs keep the hallmark of definiteness, namely "the resistance to existential interpretations" (existential readings being typical of BPs) and a "strong preference for contextually anchored readings we associate with the definite determiner", as well as a preference for wide-scope interpretations in quantified contexts (Dayal 2009, § 4.1).

In order to maintain something compositional in the derivation of the semantic values, it is not safe to analyze morphologically definite expressions as indefinites.

Suffice it to say, considering French data, that an IS-DP unitary analysis treating both as mere[9] variable introducers faces stiff morphological counter-evidence. Because the IS-BP semantic contrasts observed in English (which associates ISs, but not BPs, with an inherent modal flavor) project perfectly on the IS-DP contrast in French, we can conclude that a unitary theory based on the analysis of both forms as variable introducers bound by the inherently modal *Gen* is far from the ideal solution.

Because *Gen*, although useful for deriving the modal flavor of IS, is not without problems of its own, a safe conclusion is that it is worth trying to derive even readings of ISs without using *Gen*.

This somewhat radical position leaves one with the task of deriving the generic readings of IS-DP in such a way that their similarities and differences receive an explanation.

I will pursue this goal in the following sections.

[9] What I reject here is the thesis that DPs would be (as indefinites are supposed to be in dynamic semantics) *mere* variable introducers to be bound by a quantifier of their context. In the dynamic semantic view, definites should be referring terms (i.e. their context should provide the set they are referring to). In my own approach, only sketched in this paper, DPs are conceived as referential terms: they provide a domain of individuals, and UC quantifies over this domain.

2 Universal closure and the derivation of definite plural generics

In this section on DP, I provide, for space consideration, a sketch of the main options, rather than a full discussion.

2.1. Restricted plurals

Let us assume that the French *les Xs* (DPs) denote a set, namely the maximal set of individuals X, which is possibly the maximal such set within a contextually restricted domain[10]. DPs are open to two kinds of predication:

1. Direct or individual predication: the VP property is satisfied by the plural individual, by the "group" formed by the maximal set.

2. Indirect or quantificational predication: a quantifier takes the maximal set as its quantification domain.

Example (9) is a context that allows for direct predication only:

(9) Les étudiantes de ma classe sont (*toutes, *pour la plupart) nombreuses.

The female students of my class are (*all, *for most of them) numerous.

Example (10) is a context that allows quantificational predication only:

(10) Les étudiantes de ma classe sont (toutes, pour la plupart) célibataires.

The female students of my class are (all, for most of them) unmarried.

A sub-class of predicates, referred to as *holist* predicates by Corblin (2008), accepts only direct predication: e.g., "to be numerous", "to be ten thousand", "a nice couple". See the "purely cardinal predicates" of Dowty (1987).

A sub-class of predicates accepts only indirect predication: e.g., "to be pregnant", "to have a red nose".

Most predicates admit both readings: e.g., "to build a raft", "to buy a house".

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[10] This view is common in formal semantics. See Link (1983) and Landman (1989).

Quantificational predications without any lexical quantifiers also exist. For those cases, I assume a closure mechanism which I call *Universal closure*, UC.

Universal closure

Natural languages offer structures marked as quantificational with no overt quantifier. These structures are interpreted by a closure mechanism as universal or quasi-universal :

$\forall^{c}$ x $(\ldots)_{\text{Restrictor}}$ $(\ldots)_{\text{Scope.}}$

"$\forall^{c}$ x" means " For all or almost all x_s".

This general closure mechanism has no modal content of its own, and is compatible with many different structures. It can be seen as a generalization compatible with Lewis (1975) analysis of conditionals and as the general schema underlying the more sophisticated *Gen* in Krifka et al. (1995). It can also be used for the derivation of D-linked DPs interpretation (again a quantificational structure without any overt quantifier), once assumed that the DP denotes a set providing a restrictor for the UC operator.[11]

In this short section, I just want to suggest that both Lewis's analysis of conditionals and the semantic analysis of DPs as referential terms, require a closure mechanism based on a covert quantifier associated to the meaning *all or almost all*, a mechanism we call UC. As compared to the various theories making use of a covert operator GEN, the current proposal can be seen more as a least common denominator than as a new thing. UC is very underspecified, has no modal content of its own, is supposed to work for a large set of different constructions, and is conceived as a mechanism comparable to EC.

[11] For a full discussion of the relationship between the meaning of definiteness and universal quantification, see a.o., Link (1983), Dowty (1987), Landman (1989), Brisson (2003), and Corblin (2008).

1.2. Definite plural genericity

The simplest claim is that nothing more is needed for deriving I-generic readings of DPs. The root of genericity is that the restrictor in which one is required to include all of the xs to quantify over them is not explicitly bound and can be, for this reason, as large as desired, possibly including any accessible possible worlds in any modal base. This explains why DPs can express mere descriptive generalizations on small restricted sets as well as modal sentences involving all accessible possible worlds. I do not take this property as an ambiguity, as Greenberg (2003) does, but rather as a case of underspecification. A sentence like (11), for instance, can be a simple observation or a modal sentence (*must*), depending on the context:

(11) Dans ma famille, les femmes travaillent.

In my family, the women have jobs.

The fact that UC automatically applies to DPs explains why there is no constraint concerning the associated predicates, making sentences like (12) and (13) felicitous:

(12) Les madrigaux sont populaires.

The madrigals are popular.

(13) Les pilotes sont blonds.

The pilots are blond.

Sentences (12) and (13) are felicitous, although probably not shared, and can be used with no commitment regarding the truth of such sentences in any normal world; they can express mere generalizations over some empirical evidence.

The main obstacle to this simplification is the existence of cases in which DPs seems to denote directly a kind (and not only a very large set of individuals) as in (14) :

(14) Les dinosaures ont disparu.

Dinosaurs are extinct.

I do not think this argument constitutes a very strong objection. Some recent works that implement a kind interpretation do so on the basis of the maximal set interpretation (Farkas & de Swart 2007). One may think the so-called "kind interpretation" of plurals to be just a "maximal set" interpretation. This is the position of Dayal (2009) who states that plural-kind formation and regular definiteness differ only in intensionality: plural-kind readings are simply an intensional version of the maximality operator.

The so-called "generic DPs" might thus be nothing, at least in most of their uses, but DPs with unbound quantification domains.

Note that in the present approach not all DPs trigger UC. Only indirect predication option does (see above). It remains possible, thus, to predict "directly" something of the maximal (intensional) plural individual (and not of any of its individual members).

3 The roots of genericity for singular indefinites

3.1 What universal closure alone can and cannot explain

UC is taken as a general mechanism at the syntax-semantics interface: it applies if a structure is marked as quantificational and deprived of an overt quantifier; it yields a weak universal quantification. Can UC be involved in the derivation of IS generics?

The main reason to answer this question affirmatively is that IS generics seem to have the same tolerance to exceptions as do two contexts for which we assume UC: DPs and conditionals.

However, it is not uncontroversial that IS generic sentences can be seen as quantificational structures missing an explicit quantifier. For instance, in conditionals, the lexico-syntactic structure, *if p q,* itself can be viewed as explicitly signaling a quantificational structure[14].

[14] Rimell (2004) states that "when" clauses can serve as an explicit signal that a structure is quantificational.

For IS generics, there is another obvious option. For many theories, the indefinite is either an existential quantifier (Russell) or it normally undergoes what Heim calls EC. There is, then, good reason to think that there is some sort of preference for EC or, more precisely, that EC normally applies for IS unless something special rules out this interpretation and leaves UC as the only accessible option.

There are, at face value, several arguments leading to the conclusion that EC is the default for ISs. It is, for instance, available in most syntactic distributions, which is not the case for generic readings of ISs. Rimell (cf. supra) observes that genericity cannot be obtained in the object position, although an overt quantifier can bind an indefinite in the very same syntactic position.

It can also be observed in French that ISs seem to be "attracted" towards an existential reading any time some other element of the sentence implies an existential binding or an indexical interpretation:

(15) Les romans m'ont intéressé pendant tout ma jeunesse. generic reading accessible

The novels interested me throughout my youth.

(16) Un roman m'a intéressé pendant toute ma jeunesse no generic reading

A novel interested me throughout my youth.

(17) Un roman m'intéresse. no generic reading

A novel interests me.

(18) Un roman m'intéresse toujours generalization

A novel always interests me.

If one wishes to derive IS-generics by means of UC, another problem is that IS-generics have a modal flavor that cannot be associated with UC because we were careful to design UC with no modal force of its own, just as a weak universal quantifier.

3.2 The constraints on IS-generics

3.2.1 Semantic constraints

A large body of literature has noted that many contexts produce awkward sentences once one tries to consider such sentences as IS-generic, but there is no agreement on the best way to formulate the felicity/infelicity constraints underlying this phenomenon.

Lawler (1973) states that IS-generics are acceptable if the associated property is an *essential* or *inherent* property of the subject. Burton-Roberts (1977) claims IS-generics are restricted to generalizations perceived as "analytic" and to definitional sentences, and that they carry a normative force. These formulations have been shown to be inappropriate, as there are acceptable IS-generics that combine very accidental properties and do not appear to be analytic:

(19) A carpenter earns very little. (Cohen, 2001)

Moreover, Greenberg (2003) has shown that infelicitous IS-generics can be rescued by some "contextual supports":

(20) # A room is square.

(21) In Japan, a room is square.

It must be observed, in the same vein, that any indication that the generalization is not absolute but is valid only for a definite individual makes the sentence better:

(22) # Un film est ennuyeux.

A film is boring.

(23) Pour moi, un film est ennuyeux.

For me, a film is boring.

The interesting point is that it is impossible to use an IS-generic sentence to express a "subjective generalization", i.e., something *you* believe to be generally true although you know that this belief is not shared, if you do not state it explicitly in the sentence. Once the

sentence is explicitly declared as relative to a specific agent, many otherwise awkward sentences become acceptable.

On the other hand, for predicates which are typically used for making strict partitions over a given set , for instance even/numbers, luky/men, rainy/day, the pattern which normally yields generic sentences, will only produce sentences which are odd, and not just false, like (24) and (25) :

(24) Un jour est pluvieux

A day is rainy

(25) Un nombre est pair.

A number is even.

I think the case of "popular", in the famous madrigal example, is the paradigmatic case of such a "distinctive" property: it is common wisdom that some madrigals are popular, whereas others are not.

3.2.2 Previous interpretations of the semantic constraints

One line of explanation begun by Carlson (1995) is based on the difference between two kinds of generalizations: inductive generalizations, which are quantificational in nature and derive from observations, and "rules and regulations" involving causal relations between properties. A simple example illustrates this distinction: suppose you meet many pilots and observe that they are all right-handed. You may want to express an inductive generalization and say (26):

(26) Les pilotes sont droitiers.

The pilots are right-handed.

However, you may think that, although this looks general, there is no principled reason for explaining the correlation. The fact is that an IS-generic would be awkward in that case:

(27) # Un pilote est droitier.

A pilot is right-handed.

For this reason, some scholars (Cohen 2001, Greenberg 2003) postulate that IS-generics are felicitous if they express "rules and regulations" involving some causal relations.

Greenberg (2003) assumes that ISs can only be asserted if the speaker has in mind some specific property of the IS subject *in virtue* of which every member of the set satisfies the predicate. BPs, by contrast, express the same *in virtue of* generalizations as well as another kind of generalization, called "descriptive" generalizations.

Cohen (2001) claims that IS-generics are not quantificational (contra Greenberg) but express *rules.* As pointed out by Greenberg, this theory has the drawback of assuming a completely different logical form for IS-generics ("rules") and making a compositional derivation more difficult. Nevertheless, Cohen notes many interesting syntactic contrasts that, in my opinion, cast real doubt on the possibility of a purely semantic analysis of the constraints on IS-generics.

3.3 Syntactic licensing of semantic mismatches

Cohen (2001) makes the following point: "Nonessential properties *are* sometimes felicitously predicated of IS generics. If the property of being popular is not necessarily true of madrigals, neither is, presumably, the property of being a popular song. Yet (28) is much better than (3) (though, of course, it may be false)":

(28) A madrigal is a popular song.

Cohen (2001) provides the following analysis of this fact. Rules can be viewed as (partial) *definitions*, and an IS-generic can only express a rule; it will be licensed for this reason if the sentence can be analyzed as a (partial) definition. Cohen's explanation for the contrast between examples (3) and (28) is roughly as follows: because a *song* is a genus of the species

madrigal, the sentence is clearly in the form of a definition, i.e., in the standard form for expressing rules; hence the rescuing of the sentence.

Cohen's insights should be split into two parts: 1) the observation that some syntactic structures can license *any* IS-generic sentence, a general observation he does not make explicitly; and

2) The thesis that a syntactic structure has this property if it takes the form of a definition (genus, species).

The generalization (1) underlying Cohen's example should be made explicitly and is correct, although the second part (2) does not cover all relevant cases.[15]

In French, some syntactic structures dispense of any semantic constraints regarding the properties that may be combined to yield a generic reading:

(29) Un madrigal, c'est populaire. # un madrigal est populaire.

A madrigal, it is popular A madrigal is popular.

(30) Un madrigal, j'adore ça. # J'adore un madrigal.

A madrigal, I love this # I love a madrigal.

There is likely no French linguist who would accept the notion of "definition" as a basis for characterizing these syntactic structures. However, there is at least one point possibly connected to the issue under discussion that any French linguist would make about these syntactic structures: they contain an IS for which EC is *not* allowed.

3.4 IS in the subject position and existential readings

[15] Note that the second part leads to the conclusion that simple IS-generic sentences (e.g., "A madrigal is polyphonic") are not very good vehicles for definitions because the predicate does not contain a genus for madrigal, although these sentences are typical in the definitions of species.

A well-known fact about French (see, e.g., Kleiber 1981, Galmiche 1986, and, for a review, Dobrovie-Sorin 1997) is that IS existential subjects are not optimal in discourse, especially when combined with an individual-level predicate. For instance, (31) is not felicitous:

(31) Marie pose les fruits sur la table. # Une pomme est verte.

Mary puts the fruits on the table. An apple is green.

The slightly different (32) and (3") are much better:

(32) Marie pose les fruits sur la table. Une des pommes est verte.

Mary puts the fruits on the table. One of the apples is green.

(33) Marie pose les fruits sur la table. Il y a une pomme qui est verte.

Mary puts the fruits on the table. There is an apple that is green

Many explanations for this phenomenon have been invoked in the literature, most of them exploiting the idea that some sort of antagonism exists between the subject position and the introduction of a new entity or, in the same spirit, that a natural association exists between the subject and a known topic. I will not elaborate this topic further; for our purposes, it is sufficient to acknowledge the fact because we can observe, on the contrary, that this very context (subject position + individual-level predicate) is optimal for a generic reading of ISs. The common interpretation of this preference is rather that this configuration is preferred because it is well adapted for expressing rules (see Cohen 2001).

4 The roots of IS genericity: a proposal

In existing approaches to the semantic force and infelicities of IS-generic readings, there are many adequate formulations of intuitions as well as some weak points. Some relevant questions follow:

How do we explain that this maximally unspecified form (i.e., indefinites) yields all of these very rich specifications: to express "in virtue of" generalizations, to express rules, to have a modal flavor?

What is the relationship between this reading and the existential reading of these forms? Is it a mere ambiguity?

How can we explain that a form prominently characterized as *existential* by both dynamic approaches (e.g., Heim 1982) and Generalized Quantifier theory (e.g., Keenan & Stavi 1986) can also be described as generic in another part of the language description?

Why is this reading so rare? Few syntactic positions (mainly the subject) allow it, and there are strong semantic constraints on the associated properties.

Why is this reading licensed by some syntactic structures regardless of their semantic content, but not by other structures?

In the following, I will introduce a proposal for deriving IS-generics and their constraints that seeks to provide plausible answers to these questions. This proposal assumes ISs to be variables, with IS-generics being quantificational and derived by means of the general mechanism called UC.

The default interpretation of ISs is EC.[16] This means that an existential reading emerges unless syntactic or semantic properties of the context make this option unavailable. I will assume moreover that if the default existential closure option is ruled out, we are left with a quantificational structure without any overt quantifier, a situation in which, according to an otherwise needed assumption, UC applies.

An anonymous reader objects that the deeper question behind this approach is "why is UC available at all as a possible interpretation of IS?" I agree that the assumption that it is might be challenged, considering, as I noted before, that to see the typical host sentence of generic ISs as a quantificationnal structure without any quantifier is not uncontroversial. By assuming

[16] Russell's theory that ISs *are* existential quantifiers, and the weaker version of dynamic semantics considering that IS are associated to a default mechanism called "existential closure" rests on the same intuition that ISs have a special affinity for existential interpretations.

that UC applies when EC is blocked, I am just using a device otherwise needed in the grammar of the language, and I am making the assumption that a closure mechanism can apply in contexts where the preferred one is blocked. As often in linguistic analysis, I am, just trying to show that an assumption can accommodate the observed data.

I will try to establish that the relevant *semantic* properties of the context, when they are relevant (because, as we will see, there is also syntactic licensing of IS-genericity), are precisely at the root of the intuitions regarding the special law-like flavor of IS-genericity.

4.1 Syntactic licensing of UC for ISs

Some syntactic structures in French rule out EC for ISs. These include French dislocations of the indefinite with *ce/ça*, as illustrated by (30). All of these structures yield perfect generic sentences, whatever the semantic properties are, for any degree of subjectivity and in most syntactic positions, as confirmed by (34):

(34) Un madrigal, on aimait beaucoup ça au 16me siècle.

A madrigal, one liked this very much in the 16th century.

The literature on French has established that this dislocated indefinite cannot be kind-denoting. Predicates selecting kind interpretation are not licensed:

(35) *Un dinosaure, c'est maintenant disparu.

A dinosaur, it is now extinct.

A plausible conclusion is thus that the generic reading is obtained by means of a (weak) universal quantifier.

It can be observed that the *structure* under consideration rules out any existential interpretation of an IS in the dislocated position, as illustrated by (36):

(36) *Un des sonnets de Shakespeare, Ca m'a plu.

One of the sonnets t by Shakespeare, it pleased me.

Suppose that this prohibition of EC (whatever its origin is), leaves the construction as a quantificational structure without any overt quantifier (it is plausible, if not uncontroversial, to see dislocations as distinguishing a restrictor, the dislocated constituent, and a scope, the kernel sentence). Then, even if EC is normally the preferred closure for IS, it is no longer accessible, and only UC can apply. Assuming this does provides exactly the desired generic readings of ISs in dislocated structure with *ça.* The prediction is then that in both cases any kind of generalization (e.g. descriptive, subjective, etc.) is accessible, which seems to be the case. Any modal base can be associated with these sentences, which can convey *epistemic, deontic, buletic,* or *normal* modalities. There is no semantic constraint on the properties, and subjective generalizations can be expressed.

This configuration of properties shows that what some theorists count as properties of ISs in generic sentences (e.g., essential, in virtue of) are not present when the IS lies within a structure that rules out EC.

The relevant property of the "definitional" structures signaled by Cohen (2001) might be that these structures, as for French dislocations, makes an EC interpretation non-accessible. Consider for instance the example (28) above discussed by Cohen. It is very difficult to use this kind of sentence with an existential interpretation of the subject IS:

(37) Un madrigal est une chanson populaire. #Il a été chanté très souvent.

A madrigal is a popular song. It has been sang very often.

Again, the reasons why this is so would be interesting to discuss. But it suffices for the present purpose to observe that generic readings emerge when EC is blocked in some syntactic configuration.

4.2 Semantic and pragmatic licensing of UC for ISs

[18] A similar mechanism operates on events and states associated with some temporal and aspectual markers in a neo-Davidsonian approach.

Other syntactic configurations are structures that, in principle, freely admit EC. Our initial observation is that only a very small subset of these structures has access to generic readings. We argue that this occurs if EC is ruled out by semantic or pragmatic factors, which are precisely the source of the modal flavor attached to these sentences.

4.2.1 Felicity conditions on EC

IS-generic contexts (see the definition in the introduction) are contexts in which no overt quantifier can be found in the sentence. A classical view in dynamic semantics is that a default mechanism (EC) interprets the corresponding variable as a variable out-scoped by an existential quantifier.[18] As for any general linguistic mechanism, this interpretation might require that some felicity conditions be satisfied.

Consider, for instance, a property P such that it is certain that all members of a given class of objects A must share this property. This situation makes an EC interpretation of *an A P* infelicitous. Why? According to the logical interpretation of existential quantification, such an interpretation yields only a tautology, an uninformative sentence. In the dynamics of discourse, a specific discourse referent is introduced by an indefinite, and the host sentence must be helpful for developing a more precise idea of this individual: if P is shared by all As, such a sentence is infelicitous because P is unable to operate a proper partition over the set A. This situation would apply, for instance, for sentence (38):

(38) # Sur cette feuille de papier un des carré(s) a quatre côtés.

On this sheet of paper, one of the squares has four sides.

A less dramatic situation results if you know for sure that P is very common for a given set A.

(39) Dans ce groupe, un enfant est droitier.

In this group, a child is right-handed.

This sentence is slightly odd because being right-handed is very common. The corresponding sentence (40) with "left-handed" would be much better:

(40) Dans ce groupe un enfant est gaucher.

In this group, a child is left-handed.

The relevant property in this respect is "to be able (or to be likely), for a property P, to operate partitions on a set of As". EC "introduces" individuals, and so no specific knowledge about them can be taken into account; only the lexical definitions of A and P and the common ground are relevant for deciding whether this felicity condition holds.

4.2.2 Conditions on IS generics

The default mechanism for IS is claimed to be EC. This claim might explain why generic readings are rare and EC, so to speak, contagious. If a simple sentence contains other expressions that must be unambiguously interpreted by EC, an IS of the sentence will be. Consider (41):

(41) Un lion a couru très vite.

A lion ran very fast.

Let us assume that "a couru" requires an existential interpretation (a common assumption in a Davidsonian approach). The consequence of this assumption is that the indefinite article in the subject position cannot be generic. The same is true if the sentence contains an indexical or a proper name, as in (42):

(42) Une femme plait à Pierre.

A woman appeals to Pierre.

The "contagion" effect can be explained by the fact that to be a participant in a specific process or to be in relation to a specific individual are properties that are not shared by sets and, hence, properties that make EC felicitous. Thus, the UC option simply does not arise.

On the basis of this information, we can sum up the conditions in which UC will be triggered:

UC is triggered either if the syntactic structure rules out EC or if the common ground contains the knowledge that P, as a general rule, cannot operate partitions over a set of As.

Using a formulation in term of commitments gives the following:

UC is triggered either if the syntactic structure rules out EC or if it is plausible that the speaker commits herself to the proposition that, as a general rule, P cannot operate partitions over a set of As.

One may recognize here a negative version of previous theories based on the analyticity, "in virtue of" or "law-like" nature of IS generics. There are similarities, I think, as well as differences.

I do not claim, as Cohen (2001) does, that IS generics *express* a "rule". Instead, I hold that the sentence is interpreted by universal quantification if the belief that the property is unable to make a proper partition of the set of As is part of the common ground. In this view, nothing like "rules" has to be admitted in the ontology, which keeps the semantics simpler. But it is true that the felicity conditions on EC, amounts to the existence in the common ground of something close to a rule assuming that in general, a property P can make a proper partition of a set of As.

I likewise make no assumptions about the causal nature of the relationship between the properties. For the carpenter example, for instance, the trigger blocking EC reading is the belief that in the common ground, “to earn little” is not a way to make proper partitions of the set of carpenters.

One can also easily explain why the relativization to a given agent belief makes almost any combination of properties a basis of a felicitous IS generic. Once it is made explicit that the common ground should not be used, any subjective rule can be used by the speaker, with the consequence that she endorses the associated commitment to such a rule.

4.3 The preference for the subject position

Generic readings of ISs exhibit a very strong, if not exclusive preference, for the subject position. This is not very easy to explain for theories based on inherent semantic properties which would distinguish IS genericity per se (like analycity, or causal relation). In the spirit of Cohen (2003) one might suggest, as Cohen himself does, that the subject position is typically the position in which occur the defined entities in definitions. But it is not obvious that other syntactic positions cannot be used for defined entities.

In the approach introduced in the paper, it seems that it is more easy to predict the privilege of the subject position. In general, it is known that the subject position is the less optimal one for introducing new entities in discourse. This means that EC tends to be ruled out for subjects, which makes the subject, in general, a good candidate for UC. For other syntactic positions, EC is a perfect option which, if we are correct, tend to make UC less likely.

Another reason is the contagion phenomena mentioned above. It is easy to get sentences with an IS subject and a predicate deprived of any deictic or existential reading: typically sentences combining an IS subject with individual-level properties. But if one considers a direct object IS: 1) in principle, it allows EC without any restriction (see above) ; 2) if the subject is deictic or existential, it reinforces the probability of EC for the object; 3) if quantificational, it does not rule out the possibility of EC, and moreover, can interpret the variable in its scope. It follows that in most cases, a non-subject is either interpreted by EC or interpreted in the scope of the subject-quantifier.

An interesting case occurs if the subject itself is an IS like in (43):

(43) Un homme a besoin d'une femme.

A man needs a woman.

If an IS subject is interpreted by UC, it notably increases the possibility for an IS direct object to be interpreted by UC as well. Something similar to the contagion phenomena for EC might

work for UC is such cases. The interpretation of multiple IS sentences in the context of the present discussion has not received much attention in the literature and would remain to be considered more closely.

4.4 Ambiguous sentences: existential/universal closure

An empirical prediction of this approach is that ambiguous IS sentences should be rare and should be licensed only if it is difficult to know for sure whether a given property can operate a proper partition over a set.

Consider ambiguous sentences like (42):

(42) Pierre fait confiance à un garagiste.

Pierre trusts a garage owner.

It can have an existential reading, and a non-existential one, meaning roughly "If someone is a garage owner, Pierre trusts him". I am not sure all linguists would say that the non-existential one is a generic sentence, but it is nevertheless a sentence about all or almost all garage owners. Our prediction is that the syntactic position of the IS and the contagion phenomena, makes EC the preferred option, provided that the felicity condition is satisfied.

But being a function of someone's opinion, it is difficult to determine whether satisfying the property $\lambda\, x$, *Pierre does not trust x*, makes a partition in the set of garage owners. EC is licensed if this is the case; UC will be triggered if it is likely that, for Pierre, it is not the case.

A more difficult case is provided by comparative structures like (43):

(43) Marie a couru plus vite qu'une gazelle

Mary ran faster than a gazelle.

In principle, (43) can mean that there is a gazelle that Mary surpassed but the preferred reading is that Mary surpassed any gazelle. This ambiguity is not linked to uncertainty about someone's belief, as (42) might be. Actually, when used as a complement of a comparative

construction, ISs seem to reverse the usual preferences: UC is the preferred option, and EC is not very likely.

A simple way to accommodate the data is to claim that this particular syntactic context (complement of a comparative) *licenses* UC, an extension of the previous claim that some syntactic structures *impose* UC (e.g., French *ça* dislocations, nominal attribute structures). However, it is fair to say that a careful empirical investigation of potentially ambiguous sentences remains to be done, the reason being that the literature on IS-generics and the literature on ISs associated with specific readings are most often independent of each other.

5 Conclusion

The preceding arguments support the view that IS-genericity and DP-genericity in French have very different roots, although, in the end, their semantics are both that of a weak universal quantification derived by a general mechanism called UC. The special "modal flavor" inherently associated with IS-genericity alone is seen as a consequence of the special conditions required for triggering UC for a category (IS) that, by default, is interpreted by EC. For DPs, in contrast, UC is the default mechanism and requires no particular conditions, hence the multipurpose use of DP-generics. This proposal dose not use any ad-hoc covert quantifier *Gen,* although UC, being a closure mechanism, is also a way of getting quantification without any overt quantifier. The main difference, due to the fact that *UC* is designed as a general mechanism, is that UC is very under-specified and plays no-role for explaining any peculiarities of special generic readings.

I would like to further clarify the main differences between my view and those of Greenberg (2003) and Cohen (2001). Cohen states that an IS-generic expresses a rule. I instead advance that ISs are interpreted by means of UC and thus that their meaning is a weak form of universal quantification. ISs can only express this meaning (not considering syntactic

licensing, which Cohen himself is careful to note) if the felicity conditions on EC are not met by the common ground, i.e., if P is not conceived as a useful tool for making partitions over the set of As. One can see this felicity condition as the consequence of a general knowledge similar in spirit to what Cohen calls a rule, but it is not actually necessary, and the consequence is that I am not committed to the admission of "rules" in the ontology. I have also shown, on the basis of French examples, that syntactic licensing is not, in general, a matter of expressing a definition but rather the property of some syntactic structures of imposing an UC interpretation of ISs.

As for Greenberg's approach to IS-generics alone (disregarding here the fact that she uses *Gen* for BP), the main difference is that I do not take the modal force of ISs to be part of their meaning. First, I believe that syntactically licensed IS-generics (see above) do not convey any "in virtue of" feature; this fact presents a problem if this modal component is made part of what IS-generics mean. Second, I have a very different explanation for infelicities.

For Greenberg, if I understand correctly, a sentence is awkward because it means that P is true of all As in virtue of their being As, although no one can believe this, when P cannot be such a property. Normally, such a description leads to falsehood, not to infelicity. This consequence is exactly what happens with the syntactically licensed IS-generics of sentences like (28): they are false and non-shared, but not infelicitous. However, the corresponding simple sentence (3) is infelicitous, rather than just false or expressing a highly subjective conception. In contrast, I hold that the theory defended in this paper offers an explanation of infelicities as infelicities. Sentence (28) is perfect because UC is syntactically licensed and it expresses a generalization about madrigals. Sentence (3) can only be existential because EC is the default for indefinites and its felicity condition is satisfied: we know that some madrigals are popular, whereas others are not.[19] If one tries to interpret (3) as a general sentence, it is

[19] It is not a very good example for reasons discussed above.

infelicitous. Such an interpretation is not an option offered by the grammar as UC is licensed if EC is infelicitous.

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Abstract :

Indefinite singulars (ISs) and Definite plurals (DPs) in French have generic readings. The paper provides a way of deriving the similarities and differences between these readings by assuming that genericity is obtained by a more general mechanism (Universal Closure, UC) playing a different role for each categorie. For DPs, it is the default mechanism, taking the denoted set as its restrictor. For ISs, the default mechanism is Existential Closure (EC, Heim 1981). *UC* can only be triggered if the default mechanism, EC, is ruled out. We argue that this proposal can explain at once a set of well-known peculiarities of IS generics: they are rare, require the subject position, come with a modal flavor, and cannot be used for expressing subjective generalizations, except in some syntactic structures, which does not manifest any of these peculiarities (Cohen 2001). The proposal does not use any ad hoc *Gen* operator, the general closure mechanism UC doing the crucial part of the job: expressing a weak ("all or most") universal quantification in the absence of any overt quantifier.