Anaphora and Genericity in Brazilian Portuguese*

Ana Müller**

1 Introduction

This paper examines the semantic behavior of sentential anaphora with generic antecedents in Brazilian Portuguese (BP). It does so in the light of the analysis of generic nominals as proper names of kinds – *kind referring expressions* (see Carlson, 1977, 1982), and of characterizing sentences as sentences under the scope of a dyadic generic operator – *generically quantified sentences* (see Carlson, 1989 and Krifka *et al.*, 1995).

BP has developed a specialization of its subject and possessive pronominal forms as to the expression of a bound variable versus a referential interpretation of pronouns. In subject position of subordinate clauses, the null form is interpreted as a bound variable and the pronoun *ele* (he) is interpreted referentially. As far as possessive forms are concerned, *seu* (his/their) behaves as a bound variable and *dele* (of-he) is the referential form. As a consequence of this fact, one would expect definite generic DP antecedents, which are kind-referring expressions (i.e., proper names of kinds), to choose the referential form and generic indefinite antecedents (variables under the scope of a generic operator) to choose the bound variable form.

* A first version of this paper was written during my first year as a visitor at the University of Massachusetts Linguistics Department-Amherst. I thank CAPES for financing my stay and the Department of Linguistics, USP for granting me a post-doc license. I am very grateful to the UMass Linguistics Department for having me as a visitor. In particular, I am indebted to Barbara Partee and to the participants of the *Proseminar in Semantics 1998* for criticisms and comments. More recently, this paper has benefitted from comments by the audience of the *Seminários em Teoria Gramatical- USP 2000*. The paper is essentially the same one presented at *ANPOLL 2000*. Criticisms and comments by Sérgio Menuzzi (this volume) and by the audience have not been incorporated.

** USP.

This prediction works well as far as indefinite generics are concerned. A pronominal form with an indefinite generic antecedent picks out the bound variable form, unless it is stressed. This behavior gives support to an analysis of generic indefinites as predicates with a free variable under the scope of some kind of adverbial or modal operator as proposed in Heim (1982, inspired on the work of Lewis 1975). Nevertheless, the fact that stressed anaphoric pronouns with generic indefinite antecedents are acceptable poses a problem to this analysis. Definite generics, on the other hand, present us with yet another puzzle. They do not behave as expected of proper names, but they strongly favor the choice of the bound variable forms instead of the referential ones.

The main issue discussed in this paper then is whether the anaphoric behavior of generic nominals in BP supports the existence of the two ways of expressing genericity in natural languages. One can state this issue the other way around, that is, whether the analysis of genericity as encompassing two different phenomena lends support to the thesis of specialization of pronominal forms in BP.

Other related questions are: (i) Why does focalization of a pronominal constituent change its behavior in respect to the selection of the kind of antecedent? (ii) Since definite generics do not behave as referential expressions with respect to the pronominal forms they select, what would the difference between these expressions and proper names be?

The paper is organized as follows. First, I present the facts about the specialization of pronominal forms in BP. Then, I sketch Heim' s (1982) analysis of indefinites. Next, I show that the data on BP support a GEN(eric) operator account of characterizing sentences and the analysis of indefinites as predicates with a free variable as in Heim (1982). I then claim that the puzzle caused by the grammaticality of generically quantified sentences with an anaphoric use of stressed *ELE/DELE* may be solved if focus is analyzed as an operation that introduces a presupposition. Focus introduces a presupposition of existence of a contextually defined set, and the stressed pronoun refers to one of its members. Finally, I claim that definite generics in BP do not behave as denoting first order atomic entities, but are probably best described as denoting second order entities that are nominalizations of properties.

2 The specialization of pronominal forms in Brazilian Portuguese[1]

Negrão & Müller (1996) highlight a phenomenon of specialization of pronominal forms in Brazilian Portuguese related to the semantic interpretation of their antecedents. The authors focus on the alternation of possessive forms *seu/sua* versus *dele/dela* (his/her vs. "of-he"/ "of-she") and between an empty category and the pronouns *ele/ela* (he/she) in subject position of subordinate clauses. In subject position of subordinate clauses the specialization is that the empty category is anaphoric to quantified (see (1)) or generic (see (2)) antecedents and the pronoun *ele* is coreferent to referential antecedents. As far as possessive forms are concerned, *seu* refers back to quantified (see (4)) or generic (see (5)) antecedents, and *dele* refers back to referential antecedents (6).

(1) Ninguém afirmou que ∅/*ele preferia ir sozinho.
Nobody asserted that ∅/he would-prefer go alone
'Nobody said he would rather go by himself'

(2) Executivo (sempre) acha que ∅/*ele trabalha demais.
Executive (always) thinks that ∅/ he works too-much
'Executives (always) think they work too much'

(3) João afirmou que ?∅/ele preferia ir sozinho.
João asserted that ∅/he woud-prefer go alone
'João said he woud rather go by himself'

(4) Cada um tem o seu gosto/*o gosto dele.
each one has the his taste/ the taste of-he
'Each one has his own taste'

(5) A televisão brasileira encontrou o seu caminho/?o caminho dela.
the television Brazilian found the her path / the path of-she
'The Brazilian television found its own way'

(6) João tem *o seu gosto/o gosto dele.

Müller (1997) recasts this specialization as a specialization between bound variable and (co)-referential readings of pronominal forms: in subject position of subordinate clauses the specialization is that the empty category behaves as a bound variable and the pronoun *ele* as a (co)-referential pronoun. As for the possessive forms, *seu* is the bound variable form and *dele* is the referential one. The different interpretative processes are illustrated in (7b) and (8b).

[1] The reader is referred to Negrão & Müller (1996) and Müller (1997) for a full picture of the specialization of pronominal forms in BP. Here I only sketch the main points.

(7) a. Ninguém afirmou que ∅ preferia ir sozinho.
Nobody asserted that ∅ would-rather go alone
'Nobody said he would rather go by himself'
b. Nobody: x (x asserted that x would rather go alone)

(8) a. João afirmou que ?∅/ele preferia ir sozinho.
João asserted that ∅/he woud-prefer go alone
'João said he woud rather go by himself'
b. João$_i$ asserted that João$_i$ would rather go alone

Sloppy identity contexts confirm this specialization. In a scenario where there are 3 representatives that belong to three different parties (Genoino-PT, Cunha Bueno-PDS and Aécio Neves-PSDB) and in which Genoino voted PT, Aécio Neves voted PT and Cunha Bueno also voted PT, (9) is true, whereas (10) is false. Sentences (9) and (10) show that the sloppy identity reading is only possible when the pronominal form is *seu*: the use of *dele* allows only for a coreferential reading.

(9) Só Genoíno votou no seu partido, ninguém mais fez o mesmo.
Only Genoíno voted in-the his party, nobody else did the same
'Only Genoíno voted for his own party, nobody else did the same'

(10) Só Genoíno votou no partido dele, ninguém mais fez mesmo.
Only Genoíno voted in-the party of-he, nobody else did the same
'Only Genoíno voted for his party, nobody else did the same'

Since semantic binding requires c-command, variable binding is not possible when there is no c-command between the antecedent and the pronominal form (see Heim & Kratzer 1998 ch. 10). Consequently, bound variable forms are predicted not to be able to occur in contexts where the antecedent does not c-command the pronominal form – these are syntactic contexts that do not allow for a pronoun to be interpreted as a bound variable even if its antecedent is a quantifier. This prediction is born out (see (11)). A referential pronoun with a quantified antecedent, in this kind of context, on the other hand, can only be used if stressed (see (12) and (13)).

(11) *Toda garota que namorou algum professor acha que ∅ é o máximo.
every girl that dated some teacher thinks that ∅ is the greatest
'Every girl who dated some teacher thinks that he is great'

(12) Toda garota que namorou algum professor acha que *ele/ELE é.o máximo.
every girl that dated some teacher thinks that he/HE is the greatest
'Every girl who dated some teacher thinks that he is great'

(13) Qualquer rapaz reconheceria a namorada *dele /DELE numa foto.[2]
Any guy would-recognize the girlfriend of-he/of-HE in-a picture
'Any guy would recognize his girlfriend in a picture'

With this much established, we can use the *seu* versus *dele* and the ∅ versus *ele* alternations (except for the stressed cases) as a test of whether we have bound anaphora or coreference. We expect the bound variable form (∅) not to be allowed in contexts where bound anaphora is not allowed. Also we would not expect *ele* and *dele* to allow bound anaphora readings.

3 Generic Indefinites and Anaphora in Brazilian Portuguese

This section deals with anaphora with generic indefinite antecedents in BP. In section 3.1, I show how generic sentences with indefinites may be analyzed as sentences under the scope of a generic quantifier that may bind the variable provided by the indefinite. I present Heim's (1982) view on indefinites and how it applies to generically quantified sentences with indefinites. In 3.2 I adopt Krifka *et al.* (1995).'s view for the description of generically quantified sentences with indefinites in BP. In section 3.3, I explain why focussed pronouns accept generic indefinites as their antecedents.

3.1 *Generic Indefinites as Hemian Indefinites*

Recent literature on generics (see Krifka *et al.* 1995) highlights the existence of two distinct phenomena: (i) *kind-referring expressions* – expressions that directly denote kinds, such as the DP *the telephone* in (14), and (ii) *generically quantified sentences* – sentences under the scope of a covert generic quantifier, such as sentence (15). Kind-referring expressions are taken to be proper names of kinds. Only certain types of noun phrases are able to perform this function – most typically, the singular definite DP. Generically quantified sentences, on the other hand, are generalizations over entities or events and are not related to any particular type of DP.

(14) Graham Bell invented the telephone.
'Graham Bell invented the kind telephone'

(15) Graham Bell sleeps after lunch.
'Usually, if *s* is an after lunch situation, Graham Bell sleeps in *s*'

[2] Example due to S. Menuzzi and R. Ilari (personal comunication).

Generic indefinites are indefinite nominals that seem to refer to the class of the entities denoted by their head nouns, such as *a dog* and *an up-to-date encyclopedia* in (16) and (17). They do not refer to any particular entity and do not have an existential interpretation as a Russellian analysis of the indefinite article would predict.

(16) A dog has four legs. (Heim 1982)

(17) An up-to-date encyclopedia is expensive. (Heim 1982)

Krifka *et al.* (1995) do not consider generic indefinites real kind-referring expressions because they do not seem to be able to denote kinds. First, they do not occur in episodic sentences (compare (18) to (19)). Second, they cannot be used with predicates that apply only to kinds (compare (20) to (21)). Finally, they cannot be used with non-stative predicates (compare (22) to (23)).[3]

(18) The potato was first cultivated in South America.[4]

(19) *A potato was first cultivated in South America.[5]

(20) Graham Bell invented the telephone.

(21) *Graham Bell invented a telephone.

(22) The rat was reaching Australia in 1970.

(23) *A rat was reaching Australia in 1970.

As first proposed in Heim (1982), indefinite nominals may be analyzed as predicates containing a free variable which will wind up bound either by a covert or by an overt operator. Heim (1982), inspired in Lewis (1975), also suggested that sentences with generic indefinites might be analyzed as parallel to conditional sentences, so that sentence (24b) would be a close paraphrase of sentence (24a). Indefinite generics then are just 'normal' indefinite DPs used in generic sentences. Consequently, their semantics is going to be whatever the semantics of indefinites is plus the semantics for generic quantification.

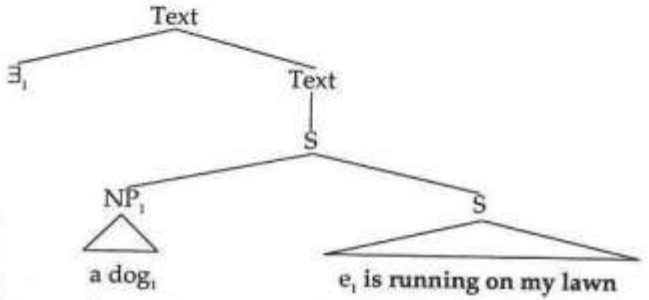
(24) a. A millionaire is very powerful.
b. (Always/necessarily) if someone is a millionaire, he is very powerful.

[3] Se Müller (*forthcoming*) for a detailed explanation and application of this criteria to BP.
[4] Sentences (18)-(23) are from Krifka *et al.* (1995).
[5] The asterisk in this case indicates semantic and not syntactic ill-formedness. Actually it only means that they can't be interpreted as straightforward generics equivalent to (18), (20) and (22). They *could* be understood as generics under the 'shifted' reading "one kind of potato".

Heim's (1982) analysis of indefinites as predicates with a free variable attributes the syntactic logical form in (26) to a sentence like (25).[6] This logical form is derived from the syntactic surface structure of the sentence via a series of construal rules. In (26), T is a text node and ∃ is an existential operator added to the text by a rule of existential closure. Sentence (25) is to be interpreted as "there is a dog x and x is running on my lawn", so that the existential quantifier binds together the free variable in the indefinite noun phrase (the index $_1$) and the free variable in the nuclear sentence (e_1).[7] As one may notice, (26) is equivalent to a Russellian analysis of the indefinite article. It is only on the analysis of more complex sentences that the two theories will yield different results.

(25) A dog is running on my lawn.

(26)

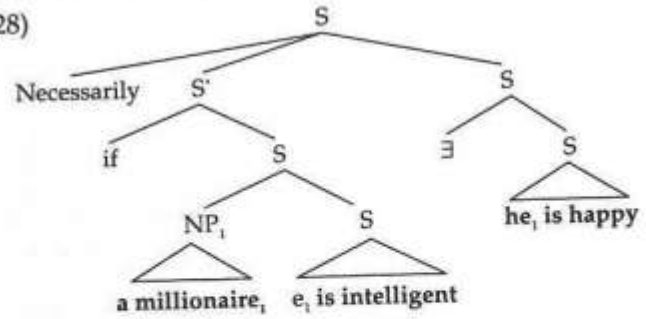


For conditional sentences like (27) which contain an anaphoric relation between an indefinite and a pronoun, Heim's theory yields the logical form in (28), which is to be interpreted as "necessarily, if x is a millionaire and x is intelligent, x is happy"[8]. The idea is that if-sentences are sentences under the scope of a hidden necessity operator and *if* is semantically vacuous. As for the anaphoric relation, note that the pronoun *he* only gets bound indirectly by virtue of its being anaphoric with the DP *a millionaire* and with its trace. Actually, it is the operator 'necessarily' that binds both the free variable in DP_1 (represented by the $index_1$), its trace (e_1) and the pronoun he_1. We may say that *a millionaire* binds he_1 only in a derivative sense.[9]

[6] I am using the term 'logical form' loosely in that it may refer to both the syntactic logical form (the LF Principles and Parameters level) and to the semantic expression of the truth-conditions of the sentence.
[7] See Heim (1982) for detailed account as to how to get from the syntactic logical form to the semantic interpretation of a sentence.
[8] Note that the operator ∃ is vacuous in this structure.
[9] I am following Heim's definitions of binding and anaphoric relations (see Heim 1982, ch. 2.5).

(27) If a millionaire$_i$ is intelligent he$_i$ is happy.

(28)



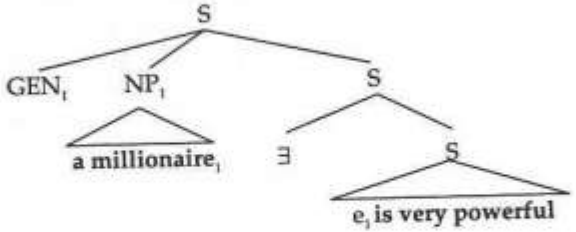
Heim (1982) further suggests that a sentence like (29) below could be analyzed in the same way as sentence (27) as having a *restrictor – a millionaire$_i$ is intelligent* – and a *nuclear scope* (a matrix) *– e$_i$ is happy* –, both under the scope of a modal quantifier. In this sense, (29) would be equivalent to "necessarily, if a millionaire is intelligent, he is happy".

(29) A millionaire that is intelligent is happy.

She then proceeds to suggest that "the so-called 'generic' use of the indefinite is a special case of this: it is an indefinite restricting an invisible operator" (p.191). So in her theory a sentence like (30) has (31) as its logical form. The hidden operator on sentences with generic indefinites, which I am calling GEN is taken by Heim to be human necessity.[10]

(30) A millionaire is very powerful.

(31)



Inspired on Heim's suggestion, Carlson (1989) and Krifka *et al.* (1995) adopt an analysis of characterizing sentences as sentences containing an unrealized relational generic operator that takes a

[10] See Heim (1982, p. 190-195) for a discussion on the interpretation of this operator.

restrictor and a **nuclear scope** as its arguments. This operator is presented in (32), where the variables before the semi-colon are the ones that get bound by GEN and the variables after the semi-colon are the ones that get existentially bound within the nuclear scope. Variables within {} may or may not appear in the nuclear scope.

(32) **GEN** [x_1,..., x_i; y_1,..., y_i] (**Restrictor** [x_1,..., x_i]; **Matrix** [{x_1},..., {x_i}, y_1,...y_i])

An example of a characterizing sentence with a 'generic' indefinite as translated into its semantic logical form with use of a generic dyadic operator is shown in (33a-b). It may be paraphrased as "usually if x is a millionaire, x is very powerful".

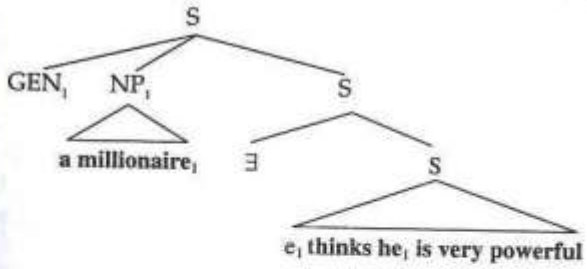
(33) a. A millionaire is very powerful.
b. **GEN** [x;] (x **is a millionaire**; x **is very powerful**)

As for a sentence with an anaphoric pronoun like sentence (34), one would expect its interpretation to be like (35a) that could be paraphrased as (35b-c). The pronoun ends up bound by the GEN operator by virtue of its being coindexed with the indefinite antecedent and with its trace as is clear from the Heimian tree in (36).

(34) A millionaire (usually) thinks he is very powerful.

(35) a. GEN [x;] (x is a millionaire; x thinks x is very powerful)
b. 'Usually if x is a millionaire then x thinks x is very powerful'
c. 'If a person is a millionaire then he thinks he is very powerful'

(36)



As we have seen, generic indefinites may be considered heimian indefinites under the scope of a generic quantifier. Heimian indefinites are predicates with a free variable. Pronouns may also be analyzed as variables. Generic sentences with anaphora then are sentences in which the variable introduced by the indefinite and a pronominal variable may be both under the scope of a GEN(eric) quantifier.

3.2 Generic Indefinites in Brazilian Portuguese

As we have seen in section 1, anaphora with either quantified or generic indefinite antecedents in BP usually require a non-referential/bound-variable pronominal form. BP has both definite and indefinite generics as in (37)-(38). As we have seen, indefinite generics are analyzed as heimian indefinites whose variable gets bound by a covert generic operator. Consequently, one expects that generic indefinites, when antecedents of some pronominal form, should demand that this form be ∅ or *seu* – the non-referential forms in BP.

(37) O brasileiro é trabalhador.

(38) Brasileiro é trabalhador.

BP has three types of indefinite generics: the generic indefinite (39), the bare numberless (40) and the bare plural (41).[11]

(39) Um número par é divisível por dois.

(40) Brasileiro é trabalhador.

(41) Brasileiros são trabalhadores.

The three forms are not kind-referring expressions. They cannot occur – with a generic interpretation – in episodic sentences (42) or with kind-verbs (43). Neither can they occur with non-stative interpretations (44).

(42) a. A batata foi cultivada pela primeira vez na América do Sul.
b. *Uma batata/*Batata/*Batatas foi/foram cultivada(s) pela primeira vez na América do Sul.

(43) a. Graham Bell inventou o telefone.
b. *Graham Bell inventou um telefone/telefone/telefones.

(44) a. O rato estava alcançando a Austrália por volta de 1970.
b. *Um rato/*Rato/*Ratos estava alcançando a Austrália por volta de 1970.

Following Krifka *et al.*(1995), indefinite generics will be analyzed as predicates containing a free variable (*brasileiro* = **brasileiro** (x)) that winds up bound by a GEN(eric) operator. So a generic sentence like (45a) is equivalent to conditional sentence like (45b). Its semantic interpretation is presented in (46).

[11] For a study of generic indefinites in BP see Müller (*forthcomming*).

(45) a. Brasileiro é trabalhador.
b. Se ∅ é brasileiro, então ∅ é trabalhador.

(46) **GEN** [x;] (**brasileiro** (x); **trabalhador** (x))

The choice of pronominal forms as anaphoric to generic indefinites in BP supports the thesis that indefinite generics are not kind-referring expressions, but heimian indefinites under the scope of a generic quantifier, because – with an exception to be mentioned in the next section – they pick out the bound variable form, as shown in (47)-(49).

(47) Um executivo (sempre) acha que ∅/*ele muito esperto.

(48) Executivo (sempre) acha que ∅/*ele é muito esperto.

(49) Executivos (sempre) acham que ∅/*eles são muito espertos.

In Brazilian Portuguese, as in many other languages, generic indefinites are not proper names of kinds, but just 'normal' indefinites participating in generically quantified sentences.

3.3 Focus and Indefinite Generics in Brazilian Portuguese

Nonetheless, focussed pronouns pose a problem to the analysis of generic indefinites as heimian indefinites under the scope of a GEN(eric) quantifier and to the analysis of *ele/dele* as referential pronouns. The puzzle is that anaphora with indefinite generic antecedents and a referential pronominal form becomes grammatical if the pronouns *ele* or *dele* are stressed, as illustrated in (50)-(52).

(50) Um executivo (sempre) acha que ELE é muito esperto.

(51) Executivo (sempre) acha que ELE é muito esperto.

(52) Executivos (sempre) acham que ELES são muito espertos.

I now face a choice point. The first option is to maintain the claim that *ele* is always referential. One would then be forced to state that the relation between the generic indefinite and *ELE* or *DELE* is that of coreferentiality. If we take the anaphoric relations in (50)-(52) to be relations of coreferentiality, we need an explanation of what coreferentialitity means in this case for *um executivo/executivo/executivos* do not refer to any particular individuals. In order to state the problem more explicitly, formally what we have to do is explain how in (53), which is the logical form of (51), the free variable z is able to relate to the bound variable *x*.

(53) **GEN** [x_i;] (x é executivo; x acha que z trabalha demais)
'Geralmente se x é executivo, x acha que z trabalha demais'

The second option is to accept that *ELE* or *DELE* may, under certain circumstances, be interpreted as bound variables. One could say, based on work such as Luján (1986) for Spanish, that strong pronouns, when contrastive, do not alternate with weak pronouns.

But there are some reasons for not doing that. If Luján's explanation is adopted, we renounce to find a unique explanation for the behavior of *ele/dele* which, in most contexts, do not seem to 'like' having non-referential antecedents, as illustrated by (54)-(55).

(54) A televisão brasileira terá de encontrar o seu caminho/*o caminho dela mesma.

(55) A sociedade acha que ∅/?ela deve se proteger contra a violência.

Unexpectedly, *ele/dele* also behave as reflexive anaphors in other contexts. In BP, *ele* may be used as a resumptive pronoun in relative clauses (56) and it may violate Principle B in certain contexts like (57) and (58), where the pronoun is bound in its governing category.[12]

(56) Esse rapaz$_i$ que eu conheci ele$_i$, ele$_i$ estava lá na festa.
This guy that I met he, he was there in-the party

(57) Maria$_i$ fez a lista dos convidados mas pro$_i$ esqueceu de PRO$_i$ incluir ela$_i$.
Maria made the list of-the guests but forgot of including she

(58) Maria$_i$ confia nela$_i$.
Maria trusts in-she

The idea I will pursue in this paper is that there is something 'referential' about the behavior of *ele* and that there is also something 'referential' about being the focus of a sentence. My hypothesis is that stressed *ele/dele* may be used with non-referential antecedents because they are focussed, and focus makes them 'referential' by creating the pressuposition that members of a prominent contextual set – to whose members they refer – exist.

It has been canonically pointed out in the literature that sentence stress usually marks that a constituent is in focus. We may then assume that our stressed pronoun is a focused constituent. Casielles-Suarez (1997) claims that focus is always related to new information, be it information already salient in the context (which is the case for deictic pronouns) or not. It is therefore intriguing to have a focused pronoun that is bound to old information.

[12] Sentences (56) and (57) are from Galves (1986).

Focus may be defined as an operation on sentences or predicates. This operation is such that it contrasts the focused constituent with all other possible denotations of the same type. The operation asserts that some denotation has occurred as opposed to the other possible (contextually determined) ones. It presupposes that members of a contextually salient set of possible denotations exist. In the case of pronouns, the truth value of the sentence is suggested to be different from the truth value of the same sentence with alternative values for the pronoun (cf. Rooth 1985, 1996 and Krifka, 1995).

My point is that the effect of focus is that a contextually defined set of entities is presupposed to exist, at least as discourse referents. In a sense, that is what focus theories such as Rooth (1985, 1995) and Krifka (1995) say. Krifka (1995) claims that, for sentences under the scope of some adverbial or modal operator, "the focused constituents appear to be part of the matrix". It is in the matrix that an existential quantifier is said to always occur in Heim's formalism. In Rooth's Association with Focus Theory (Rooth, 1985, 1995) the restrictor is filled in by substituting a variable for the focused constituent and then existentially quantifying over it. The matrix will then tell you what or who that variable stands. So, in a sense what you are saying is: of all the possible denotations of this variable (the alternatives to the focused constituent) – this is the one that actually occurs.

In a theory like Rooth (1985,1995) or Krifka (1995) the stressed pronoun ends up being existentially bound and therefore with an existential interpretation. My hypothesis is that the stressed pronoun *ELE* in sentences like (59) is not bound by a GEN(eric) operator, it is bound by an existential quantifier. Focus, in this kind of sentence, presupposes that the focused constituent, and some alternatives to it exists at some level.

(59) a. Executivo (sempre) acha que ELE trabalha demais.
b. **GEN** $[x_i;] \exists z\, [x_i$ é executivo $\wedge\, x_i$ acha que z trabalha demais; $z = x_i]$
c. 'Geralmente, se um executivo acha que existe alguém que trabalha demais, esse alguém é ele mesmo'

I will then have to change my claim that *ele/dele* are referential pronouns to the claim that they are 'existential' pronouns. In anaphoric contexts, they presuppose the existence of some entity their antecedents have brought into saliency.

4 Definite Generics and Anaphora in Brazilian Portuguese

Definite generics present us with yet another puzzle. Unexpectedly, they favor the bound anaphora forms (see (60)- (62)). These phrases are classically analyzed as proper names of kinds and should, therefore, favor *ele/dele* (see Carlson 1977 and Krifka *et al.*1995).

(60) O brasileiro tem causado preocupação aos seus vizinhos/*aos vizinhos dele.

(61) O otimista sempre acha que o seu plano/?o plano dele vai funcionar.

(62) O político sempre acha que ∅/*ele está com a razão.
the politician always thinks that ∅/*ele* is with the reason
'Politicians always think that they are right'

And here is another piece of the puzzle: proper names of persons (see (63)-(64)) occur with the referential form (*ele* or *dele*), but names of institutions (see (65)), names of places (see (66)) and abstract DPs (see (68)) tend to occur with the bound-variable form (∅ or *seu*).

(63) Jorge prometeu ao Ben$_i$ que ele$_i$/*∅ seria contratado.
Jorge promised to-the Ben that he/ ∅ would-be hired
'Jorge promised Ben that he would be hired'

(64) João tem *o seu gosto/o gosto dele.

(65) A Universidade de São Paulo considera que ∅/*ela deve apoiar as outras universidades
the University of São Paulo considers that ∅/she must support the other universities
'The University of São Paulo holds that it should support the other universities'

(66) Curitiba não quer que sua natureza/ a natureza *dela seja destruída.
Curitiba not wants that its nature/ the nature of-she will-be destroyed
'Curitiba does not want its nature to be destroyed'

(67) A Microsoft foi obrigada a vender suas ações/*as ações dela.

(68) A riqueza traz seus problemas/*os problemas dela

The puzzle is that definite generic NP's, names of places and institutions pair with quantified NP's and generics indefinites instead of with proper names of persons. Definite generics are usually taken to be proper names of kinds (cf. Carlson, 1977, 1982 and Krifka et al., 1995). They are expected to behave just like proper names.

On the other hand, proper names of places and institutions are very seldom mentioned in the literature. The paradigmatic cases are always John, Bill, Sue... and all kinds of proper names are implicitly assumed to behave in the same way as the paradigmatic proper names of persons. The hypothesis here is that kinds – and proper names of institutions and places as well – are second order entities – abstractions over first order entities or over 'stuff' (cf. Link, 1983). They do not denote entities whose existence is presupposed like a referential definite descriptions or proper names. Therefore, they may not serve as antecedents to the 'referential' or 'existential' pronouns *ele* and *dele*. If that proves right, one must decide whether ∅ and *seu* can still be claimed to be bound variable forms. We may need to draw back on that claim and say that they are 'non-referential' forms.

5 Summing up

In spite of the fact that many open questions remain, we have advanced at some points in the understanding of genericity and anaphora in Brazilian Portuguese. The main points of the paper were the following:

(i) The anaphoric behavior of generic indefinites in Brazilian Portuguese supports the analysis of these NPs as 'normal' indefinite NPs in the restrictor position of a GEN(eric) operator.

(ii) Focus seems to presuppose existence, and for that reason quantified or generic indefinite NP antecedents may be recovered by a stressed 'referential' pronominal form in BP.

(iii) Definite generics and proper names of places and institutions denote second order entities and therefore cannot be recovered by 'referential' *ele* or *dele*.

(iv) *Ele* is used when its existence is presupposed and ∅ is used when no presupposition of existence is present.

References

CASIELLES-SUÁRES, Eugenia (1997) *Topic, Focus and Bare Nominals in Spanish*. Ph.D. dissertation. University of Massachusetts, Amherst.

CARLSON, Gregory (1977) *Reference to Kinds in English*. Ph.D. dissertation. University of Massachusetts, Amherst.

——— (1989) The Semantic Composition of English Generic Sentences. In Gennaro Chierchia, Barbara Partee, & Robert Turner, eds., *Properties, Types, and Meaning. Vol. 2: Semantic Issues*, 167-191. Dordrecht: Kluwer.

———. & Francis Jeffry Pelletier, eds. (1995) *The Generic Book*. Chicago & London: Chicago University Press.

GALVES, Charlotte (1986) A Interpretacão Reflexiva do Pronome no Português do Brasil. *DELTA* 2, 249-264.

HEIM, Irene (1982) *The Semantics of Definite and Indefinite Noun Phrases*. Ph.D. dissertation. University of Massachusetts, Amherst.

KRIFKA, Manfred (1995) *Focus and the Interpretation of Generic Sentences*. In Gregory Carlson & Francis Jeffry Pelletier, eds., 238-264.

———, Francis Jeffry Pelletier, Gregory N. Carlson, Alice ter Meulen, Godehard Link & Gennaro Chierchia (1995) *Genericity*: an Introduction. In Gregory Carlson & Francis Jeffry Pelletier, eds.

LINK, Godehard (1983) The Logical Analysis of Plural and Mass Terms. In R. Bäuerle, C. Schwarze, A. von Stechow, eds., *Meaning, Use and Interpretation of Language*, 302-323.

LUJÁN, Marta (1986) Stress and Binding of Pronouns. *Chicago Linguistics Society* 22, 248-262.

MÜLLER, Ana (1997) *A Gramática das Formas Possessivas no Português do Brasil*. Ph.D. dissertation. UNICAMP, Brasil.

——— (*forthcoming*) The Semantics of Generic Quantification in Brazilian Portuguese. *Probus*.

NEGRÃO Esmeralda Vailati & Muller, Ana Lúcia (1996) As Mudanças no Português Brasileiro: Substituição ou Especialização de Formas? *DELTA* 12, 125-152.

ROOTH, Mats (1985) *Association with Focus*. Ph.D. dissertation, UMass, Amherst.

———. (1995) *Indefinites, Adverbs of Quantification, and Focus Semantics*. In Gregory, Carlson & Francis Jeffry Pelletier, eds., 265-299.

———. (1996) Focus. In Shalom Lappin, ed., *The Handbook of Contemporary Semantic Theory*, 271-297. Cambridge: Blackwell.