

THE ADJECTIVAL FUNCTION OF NOUNS

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Abstract: A study of attributive nouns in Brazilian Portuguese was undertaken with the purpose of providing a proposal for their lexicographical treatment. A classifying hierarchy was established, according to the following parameters: semantic and syntactic function; agreement properties; thematic function; modification by degree words; coordination with adjectives/nouns. With the help of this hierarchy, I was able to tell whether an attributive noun converts into an adjective. Then, productivity conditions were examined, and the following favoring factors were identified: the semantic features [+concrete], [+proper]; the semantic field of the attributive noun; style; genre; plus the time period.

Keywords: Syntax; Semantics; Noun; Adjective; Conversion

1. INTRODUCTION

This paper deals with nouns occurring in second position in Brazilian Portuguese noun + noun (NN) constructions. The study started as part of a project which is being developed at São Paulo State University (UNESP), Brazil: the DUP project for a Portuguese usage dictionary. Research was partly supported by two agencies, CNPq and FAPESP, under three grants for students who assisted me in my work (Camila Höfling, Karina Lutz and Juliana Saad).

One of the first problems the DUP research team had to face was the lexicographical treatment of items such as *model*, in *model schools* or *enemy*, in *enemy soldiers*. Although these have been traditionally classified as nouns, their primary function is to modify another noun. How

should they be dealt with in a usage dictionary: as nouns, as adjectives, or as parts of compounds? In order to answer this question I decided to examine morphological, syntactic and semantic properties of attributive nouns, focussing on the following topics: category; syntactic and semantic functions and behaviour; typical attributive nouns; productivity conditions; main semantic fields. Problems concerning their category, function and behaviour, as well as productivity conditions, are discussed in this paper.

Initially, I tried to draw a distinction between adjectives and nouns, the two categories that play an attributive role. Attributive lexical items usually occupy the second position in a noun phrase in Portuguese (and French), as opposed to English, which chooses initial position. Thus, for a construction such as *coffee break* in English, we can have *pausa café* in Portuguese, and *pause café* in French.

Bibliographical research showed that there is considerable overlapping between the lexical categories noun and adjective (Lemle, 1984; Basílio, 1992, among others). This suggests that there is a “supercategory” whose members are distributed along a continuous scale, with typical nouns at one side and typical adjectives at the other. Another solution would be to assume that there are no discrete categories in languages, and that we have to deal with sets of properties instead of classes. However, the supercategory hypothesis does not solve the problem of lexicographical treatment, for the lexicographer must still identify to which subcategory an item belongs. Besides, the task of delimiting and classifying lexical entries cannot be avoided in a lexicographical study (Carras, 1992).

Most of the literature I reviewed mentions NN constructions, but few authors have investigated the subject deeply. Some treat them as compound nouns (Lieber, 1983; Sandmann, 1988); this solution does not seem interesting to me, for most NN constructions are not lexicalized expressions. The only authors I studied that focus specifically on the subject of attributive lexical items - Levi (1978) and Noailly (1990) - have provided completely different hypotheses to explain them.

Levi has based her study on the developments of generative semantics. She classifies both NN groups (*gas heating, dream analysis*) and AN groups (*civil engineer, nervous system*) as complex nominals. For her, both attributive nouns and non predicating adjectives (NPAs) are generated as deep structure nouns. Thus, NPAs would be derived by transformational rules, and attributive nouns would never undergo categorial conversion.

Although Noailly acknowledges that the dominant methodology is “more or less” transformational, she takes a different point of view. Assuming that NN constructions belong to the field of vagueness, rather than to the field of ambiguity, she claims that the problem with generative analyses is that they adopt propositional paraphrases as sources of such constructions:

De là vient, je pense, l'éparpillement des catégories de classification q'ils proposent: le souci d'une paraphrase à la fois exacte et attestable leur interdit de s'abstraire de la diversité des faits.

Pour nous, consciente de cet écueil, nous nous en sommes tenue à une typologie plus schématique, regroupant le plus possible les cas, et visant moins à chaque fois la paraphrase, que la définition abstraite d'un modèle de relation logique (1990, p. 34)

Her study leads to the conclusion that qualifying nouns turn into adjectives, but nouns that have complementation, coordination or identification functions - such as *problème cheveux*,

chauffer-secrétaire, machine éducation (*hair problem, secretary-driver, education machine*) do not change their category.

In view of this, I decided to test the two conflicting hypotheses, in order to find out which could be confirmed. A sample of Portuguese data was collected from the DUP main database, which is made up of texts written in Brazilian Portuguese from 1955 to 1995, extracted from newspapers, magazines, novels, essays, plays and speeches (5,000,000 words). I started with a selection of newspapers and magazines, for these exhibit a great variety of styles. Then, I completed the corpus with a random search in parts of the dictionary we are elaborating. I ended up with 224 N N groups. Lexicalized expressions were excluded, as well as those having identification proper nouns as the second item (*Rio Amazonas, Presidente Fernando Henrique*), for in such cases it is difficult to determine whether N1 or N2 is responsible for the identification¹. I prefer to consider that N2 does not modify N1: identification derives from the relationship between the two nouns.

2. THE CATEGORIAL STATUS OF NOUNS AND ADJECTIVES IN LINGUISTIC STUDIES

The first grammarians did not distinguish nouns from adjectives, but nowadays it is usual to oppose the two classes. For Ilari et al.(1993), it is rather difficult to choose the correct hypothesis: even though our intuition leads us to different classifications according to form and context, there is a lot of overlapping. The distinction is by no means universal: Pagotto (1994) points out that all languages have nouns and verbs, but not all of them have adjectives. Besides, there is no interlingual equivalence between the members of the nominal and adjectival classes. Semantic content expressed by adjectives in Portuguese can be translated by nouns or verbs in other languages.

Givón (apud Ilari et al, 1993) admits that verbs, adjectives and nouns occupy different areas of a continuum. Borba (1996, p.151) discusses adjectival properties and also claims that "lexical categories are not arranged discretely, but form a chain of almost continuous elements". So, I tried to study the properties of the two categories, nouns and adjectives, in order to find out which part of the continuum is taken by the attributive noun. In other words, I tried to verify whether it converts into an adjective.

Many studies contrast nominal and adjectival features, among them Mattoso Camara (1970), Levi (1978), Lemle (1984); Borges Neto (1991), Basílio(1992;1995), Ilari et al.(1993), Lobato(1994), and Borba(1996). I summarize their results in the following table:

¹For example, *O Rio Amazonas* (*The Amazonas River*) would be an adequate answer for two different questions, considering there are both a river and a state by the name of Amazonas in Brazil:

(i) Qual rio você preferia visitar? (Which river would you prefer to visit?)
 (ii) Qual Amazonas você preferia visitar? (Which Amazonas would you prefer to visit?)

Table 1. Prototypical features of adjectives and nouns

ADJECTIVE	NOUN
external incidence	internal incidence
characterizing function	naming function
scalar vagueness	criterial vagueness
syntactic modifier function	syntactic argument function
intensification by degree words	modification by adjectives
gender agreement	inherent gender
number agreement	referentially determined number
(basis for) abstract noun derivation	combination with determiners/quantifiers

Basílio (1992; 1995) has studied categorial conversion, assuming that it only takes place when a lexical item acquires all features from another category. Items that incorporate some, but not all, of the typical features of another category would be explained as having expanded their set of features. For example, *os pobres* (*the poor*) would be a case of conversion of an adjective into a noun, because it can be used to name a class of people, it may take a qualifier or an intensifier, and it can be preceded by determiners. But the noun *cereja* (*cherry*), in *lábios cereja* (*cherry lips*) does not convert into an adjective - even though it is used as a qualifier - as can be evidenced by the lack of agreement between N1 and N2 (compare *lábios vermelhos* - *red lips*)².

Levi (1978) has also used a set of prototypical adjective properties in supporting her proposal that non predicating adjectives in English are generated as deep structure nouns and further derived by transformations. According to Levi, NPAs:

- cannot be modified by a degree word (* *a very electric clock*)
- may be assigned a thematic role (*the presidential refusal*)
- can only be associated with other nouns or NPAs (*solar and gas heating*)
- may have a quantifying affix attached to them (*triangular; monochromatic*)
- do not take nominalizing suffixes (**cardiacy*)
- exhibit nominal semantic features (concrete: *aquatic*; abstract: *dramatic*)

Since Levi claims all of these are nominal properties³, she concludes that NPAs are generated as an underlying nominal category. They only surface as adjectives after being subject to a series of transformational rules.

A similar - though not transformational - view is presented by Basílio (1995, p.190), who posits "semantic and grammatical feature extension rules" to explain why some action nouns ending in *-dor* (-er, as in *trabalhador/worker*) may occur in adjectival position/function. According to the author, in many cases, such nouns do not turn into adjectives, for they cannot be combined with a degree word, they do not take nominalizing affixes, and they cannot be used as predicative adjectives. As I have already mentioned, Basílio claims that a noun can be analysed as undergoing conversion only if it has the same features displayed by an adjective. This does not explain the fact that many non qualifying adjectives in Portuguese display nominal features, but are subject to agreement (*bancas examinadoras* / *examining boards*) and

² Portuguese displays morphologically overt noun-adjective agreement.

³ For me, both non qualifying and qualifying adjectives are subject to the concrete/abstract distinction. For example, *beautiful* is abstract, while *perfumed* is concrete. For this reason, I have not taken this parameter into account.

can be used as bases to form nouns (*urbanismo* / *city planning*). Thus, I decided to adopt a weaker version of Basílio's hypothesis: conversion takes place whenever a lexical item originally allocated to a category X exhibits most, but not necessarily all, of the features that characterize a different category Y. So, I tried to classify N2 with the help of the following parameters:

1. Semantic function (Qualifying/Non qualifying)
2. Liability to intensification or comparison / Modification by adjectives
3. Coordination with adjectives / nouns
4. Lack of thematic role / Thematic role
5. Syntactic function (Adjunct / Coordinate / Complement)
6. Agreement / Lack of agreement

Properties listed on the left side are typically adjectival, whereas those on the right side characterize nouns.

Noailly(1990) has presented the following arguments for classifying coordinates as attributive items:

- unlike members of compounds, they can have their order reversed (*printemps-été*; *été-printemps*);
- adjectives may modify the complex NN and each of the nouns at the same time (*un printemps-été parisien* = *un printemps parisien* + *un été parisien*);
- in many cases, N1 is logically subordinate to N2: N2 is a secondary characterization of N1(*juges-psychiatres* x *psychiatres-juges*).

Noailly discusses still another function of attributive nouns, identification (*le mot vaillance*, *l'espèce chien*) which I didn't take into account for two reasons: identification does not differ from syntactic adjunction or complementation, and identifying nouns are a semantic subtype of nonqualifying modifiers.

3. ANALYSIS OF THE DATA AND DISCUSSION OF THE RESULTS

Having applied the parameters above to my sample of NN constructions, I got the following results:

1. Semantic function
 - 179 non qualifying nouns (79.91%)
 - 45 qualifying nouns (20.09%)
2. Intensification / Modification
 - 207 are neither intensified or modified (92.41%)
 - 13 are modified by adjectives (5.8%)
 - 4 are intensified by degree words (1.79)

3. Coordination

- 203 are not coordinated (90.63%)
- 14 are coordinated with adjectives (6.25%)
- 7 are coordinated with nounS (3.12%)

4. Thematic role

- 204 cannot be assigned a thematic role (91.07%)
- 20 have thematic roles (8.93%)

5. Syntactic function

- 98 are adjuncts (43.75%)
- 71 are complements (31.70%)
- 55 are coordinates (24.55%)

6. Agreement

- 117 agree with N1 (54.24%)
- 62 do not agree with N1 (27.61%)
- 45 are not subject to agreement inflection (20.09%)

The results showed that, according to the first two parameters I have applied, N2 retains its nominal status: 79.91% are non qualifying nouns; 5.8% are modified and 1.79% are intensified. However, the second parameter did not prove to be significant because the frequency is too low.

As for coordination, thematic role, syntactic function and agreement, analysis of the data shows a general tendency towards adjectivization, even though coordination frequency is also low.

Most N2s (91.07%) do not bear a thematic function. Results indicate that thematic roles can only be assigned when N2 is an argument of N1. This fact seems to confirm Noailly's hypothesis that complement Ns do not convert into adjectives. For instance, in *candidatura Kubitschek* (*the Kubitscheck campaign*), N2 is an Agent and the preposition *de(of)* has probably been omitted. Such constructions can be explained as a case of discourse deletion.

Most of the attributive nouns are adjuncts (43.75%), a typical adjective function. But the number of complements (31.7%) and coordinates (24.55%) is significant, too.

In 45 cases, the agreement parameter could not be applied, because proper nouns, nouns with a stem ending in *-e* or *-a*, and borrowings do not inflect for agreement. Only 27.67% of the N2s analysed showed lack of agreement. Since agreement inflections characterize adjectives in Portuguese, morphological agreement was regarded as a sufficient condition for conversion.

In summary, four of the six parameters I tested indicated that conversion is possible. Therefore, we can assume that N2 is subject to categorial conversion into an adjective in Brazilian Portuguese. Levi's hypothesis was not confirmed, but Noailly's wasn't either, for a noun can be used to qualify without displaying other adjectival features. In *escola modelo* (*model school*), N2 qualifies N1, but it is not intensified, it does not coordinate with an adjective and it does not agree with N1. This led to the conclusion that it would be necessary

to apply the parameters to each and every noun in the corpus in order to find out whether conversion takes place.

So, a classifying hierarchy for N2 was established: nouns with most of the typical adjectival features - that is, those that undergo conversion - are at the top, whereas those that retain their nominal status are at the bottom. Thus, *ametista*, in *quartzo ametista queimado* (*dark amethyst quartz*) falls in a very low position in the hierarchy: it does not agree with N1; it is not modified by a degree word; it is modified by another adjective and does not coordinate with an adjective. *Borboleta*, in *aspecto dourado e borboleta* (*glorious, butterfly side*), is in a medium position: it does not agree; it is neither modified nor intensified; it is an adjunct; it coordinates with an adjective and has no thematic role. *Navalha*, in *faca mais navalha* (*most razor knife*), comes higher and can be regarded as a case of conversion: it shows agreement, it is modified by a degree word, and is not modified; it functions as an adjunct and has no thematic role.

The parameters do not have the same weight: agreement is the most important, for the presence of agreement inflections is enough to confirm conversion. Syntactic and semantic functions do not suffice to characterize conversion. However, they are more significant than modification by degree words, for such words can only modify qualifying adjectives. In sum, according to the hierarchy of parameters, *ametista* shows a low degree of adjectivization; *borboleta* shows a medium degree, but wouldn't be classified as an adjective because it does not agree with *lado*; finally, *navalha* shows the highest degree and can be regarded as a case of conversion.

After applying the parameters to the corpus, I concluded that there are three classifying possibilities available for the lexicographer: (a) **noun**, when there is preposition deletion; (b) **attributive noun**, in case of feature extension; and (c) **adjective**, whenever there is conversion. Therefore, a word such as *garimpo*, in *projeto garimpo* (*prospecting project*) would enter the dictionary as a **noun**; *borboleta*, in *lado borboleta* (*butterfly side = frivolous side*) would come as an **attributive noun**; and *limite*, in *situação limite* (*limit situation = borderline case*) would be listed as an **adjective**.

As for the syntactic structure of the NN group, there seems to be no disagreement in the literature. Levi (1978), Lieber (1983), and Lobato (1994) regard both N2s and non predicating adjectives as part of the phrasal head, so we can posit a case of head adjunction: $[_N N [N]]$ for N2 (except for discourse deletion) and $[_N N [A]]$ for NPAs in Brazilian Portuguese.

4. THE PRODUCTIVITY OF ATTRIBUTIVE NOUNS

4.1. *The semantic features of N2*

Studies about word formation show that the productivity of NN constructions is not high in Portuguese. Sandmann (1988, p. 27ff) claims that

Of the 1,128 new formations, 37 are words with semiprefixes, 64 words belong to special kinds of word formation (...), 260 words are compounds (one verb, 42 adjectives, 217 nouns, among them 181 N + N, 7 N + A, 13 A + N, 9 N of N, 6 V + N, one N + NUMBER), 767 are derivatives (...)

Among compound nouns, the most important ones are those formed by noun + noun (*trem-bala, deus dinheiro*) - 181 out of 217 (...)

Sandmann's studies show that affixation is the most common word formation process in Portuguese(767/1,128). The author found 181 NN groups, which equals 16.04% of the 1,128 forms. He has classified all NN constructions as compounds, but it is clear that not all of them are lexicalized in Portuguese. For example *trem-bala*(*express train*) is probably a compound, but *deus-dinheiro*(*god money*) isn't, and will probably never be lexicalized. Anyway, one can see that NN groups are the most productive of all compounds: 181(69.61%) out of 260 forms.

The same holds for English. Lieber (1983) claims that NN compounds are the most productive and tries to explain this in terms of argument structure:

(...)lexical items which have argument structures, whether represented as semantic roles (Agent, Theme), grammatical relations (subject, object), or structural positions ([NP, S], [NP, VP]) must be able to satisfy those argument structures in any tree in which they are inserted. (p.157)

In this way, compounds formed of non-argument-taking stems are more easily coined. As I have already remarked, regarding every NN group as a compound is not an adequate solution, because many of them are not fixed expressions. Since a compound comes from the lexicalization of a syntactic construction, however, combining principles are identical. So, conditions that favor or constrain the productivity must be the same, whether we are dealing with parts of compounds or with attributive nouns.

The first conditioning factor that attracted my attention was the semantic feature [+concrete]. 77.27% of the nouns I analysed are concrete. As most concrete nouns are non-argument taking, they are not subject to argument structure constraints, thus occurring more freely. This led to the conclusion that the semantic feature of N2 affects productivity.

The frequency of proper nouns also proved to be significant (22.75%, or 51/224), a fact I had not been aware of when I started the research. So, the semantic feature [+proper] is also a favoring determinant. Noailly's claim that colour nouns are highly productive was not confirmed: only six colour N2s were found in the sample (less than 5%).

4.2. Prevailing semantic fields

Next, I tried to find out if the semantic field of N2 could be correlated with its use. Analysis of the data showed that N2 belongs primarily to the following five fields:

- professions - 29 (*rei astrônomo / astronomer king*)
- animals - 23 (*facão jacaré / alligator knife*)
- appliances - 16 (*música estilo computador / computer style music*)
- family relationships - 11 (*rocha mãe / mother stone*)
- objects - 11 (*operação corda / rope operation*)

Except for profession nouns, it is not possible to predict the semantic fields that affect the use of N1. Anyway, it is important to notice that three of the most frequent fields correspond to

those of N2: professions; family relationships; animals. No significant correlations between the semantic fields of N1 and N2 were attested.

4.3. *Genre and style as conditioning factors*

Another factor that proved to be significant was text genre. Both Levi (1978) and Noailly (1990) claim that the use of N2s is due to a synthesizing tendency in language. After studying the N2 phenomenon in French, this is what Noailly concludes (p. 210):

Pour ma part, je crois vraiment que le principe de construction que j'ai étudié est destiné à prendre plus de place qu'il n'en a encore dans la syntaxe du français contemporain. Je me fie là-dessus non pas tant au corpus dont je dispose qu'à l'apparition, dans d'autres secteurs de la syntaxe, de faits qui me semblent être en corrélation avec celui-ci: la multiplication de ce qu'on appelait autrefois les locutions être en corrélation avec celui-ci: la multiplication de ce qu'on appelait autrefois les locutions verbales (*exiger réparation*) et la manie actuelle des adjectifs adverbiaux (*faire solide*) semblent, au même titre que les problèmes qui nous occupent, et conjointement, refléter un mouvement nouveau dans l'histoire du français, qui répudierait ainsi ce qu'il a adoré, cette "syntaxe analytique" forte de ses morphèmes grammaticaux (articles et prépositions) et des ses principes dérivationnels (suffixation en -ment des adverbes), et lui préféreraient des formes plus radicales.

Therefore, my initial hypothesis was that newspapers and magazines would attain the highest frequency, for they favor compact language. This assumption proved to be correct⁴:

- Newspapers and magazines - 35 (41.7%)
- Novels - 20 (23.8%)
- Essays - 17 (20.23%)
- Speeches - 08 (9.52%)
- Plays - 04 (4.75%)

However, results raised another question: why do novels come in second place, if they do not necessarily favor synthetic language? Analysis of the data showed that in this genre, N2s are often metaphorical, having a positive or negative value. Besides this, the negative effect of the metaphor seems to be weakened by employing an originally non qualifying category. For instance, compare *frivolous side (of prostitution)* with *butterfly side*, which does not seem so deprecatory.

In essays, we have the inverse situation. Most of the nouns are non qualifying (16/17), and though five of them are metaphorical (*ametista / amethyst; tronco / trunk; mãe / mother; faca / knife; golfinho / dolphin*) none have an appreciative meaning. This shows that productivity in essays must be related to compactness, just as in newspaper language.

Frequency in speeches was not high. Borba (1990) has remarked that this kind of text shows quite conservative language and formal style. This could account for the low frequency, for as Noailly (1990) suggests, NN constructions seem to be favored by innovative language. It is interesting to point out that four of the eight occurrences are items that have double entries

⁴ Only data selected through the random search were computed (84 N2s). The initial corpus was collected just in newspapers and magazines.

(noun, adjective) in the Portuguese dictionaries I looked up: *gigante / giant*; *pigméu / pygmy*; *irmãos / brothers*; *astrônomo / astronomer*. One is a condensed construction that implies discourse deletion: *conflito Leste Oeste (East West conflict)*. There is also one case of conversion (*chave / key*, in *acordo chave / key agreement*). So it seems that attributive nouns do not occur in formal speeches.

This suggested that formal language constrains the use of NN constructions. However, the analysis of plays - the most informal of the genres I scanned - did not confirm this hypothesis. Frequency was too low to permit any kind of generalization (4.75%). The result was rather unexpected, for I had assumed there would be a great many occurrences. I do not have a satisfactory explanation for this fact at the moment. All I can say is that formal style apparently constrains the use of N2s, but informal style does not seem to favor it. Anyway, the analysis of data concerning different kinds of text evidenced that newspapers and magazines favor the use of N2, but also helped to identify and confirm three other conditioning factors:

- synthetic language
- metaphorical value of N2
- degree of formality

4.4. The extralinguistic factor: time period

The first texts I scanned in order to collect the data were those written in the fifties, but cases of N2 seemed to be very few, so this led to the assumption that time would be a favoring condition, too. Noailly (1990) had already remarked that the process is gradually spreading in French. Analysis of the sample confirmed this, showing an increase in the use of NN constructions over the decades. Results are shown in Table 2⁵:

Table 2. N2s from 1955 to 1995		
Decade	Tokens	%
50	15	6.69
60	42	18.75
70	40	17.85
80	63	28.11
90	54	24.10

5. FINAL REMARKS

This study of attributive nouns in NN constructions was undertaken with the primary purpose of providing a proposal for their lexicographical treatment in a Portuguese usage dicitonary. A set of parameters was applied to a sample of 224 occurrences of N1N2 and the following properties were identified: qualifying and non qualifying (classifying) semantic function; adjunction, complementation or coordination as possible syntactic functions; general tendency towards agreement; low frequency of intensification and thematic function. Then, a hierarchy for the classification of N2s was established: those that exhibit most of the prototypical nominal features should be classified as nouns; the remainder convert into adjectives. This means adjectivization cannot be correlated with the semantic feature [+qualifier].

⁵ Even though I did not scan exactly the same amount of material for each decade, a projection can be made that ranges from 13.38% in the fifties to 24.10% in the nineties.

Therefore, the study led to the conclusion that N2s can be assigned to three different categories in a usage dictionary: noun, attributive noun, and adjective.

Finally, I investigated a set of factors that might affect the productivity of NN constructions. The following significant factors favor the use of N2:

- the semantic features [+concrete], [+proper]
- the semantic field of N2 (family relationships; appliances; professions; and animals)
- stylistic value (metaphorical and appreciative meaning)
- text genre (especially newspapers and magazines)
- synthetic language (which causes preposition deletion and loss of affixes)
- time period (NN constructions are spreading gradually)

Only one factor was found to inhibit the choice of N2 over adjectives: the formal style of language.

The results led to the conclusion that the prototypical features of nouns that can be used as modifiers are: semantic classifier; syntactic adjunct; concrete; belonging to the field of professions. If N2 is a qualifying item, its most prominent features will be concrete and metaphorical.

Even though I was able to identify some productivity conditions, a number of questions remain, which I intend to investigate in a future study about the distribution of attributive nouns and adjectives.

REFERENCES

Basílio, M. (1992). Flutuação de base categorial adjetiva no português falado. In: Gramática do português falado. Vol. II: *Níveis de análise lingüística*. (Ilari, R. (Ed.)), pp.81-98. Unicamp, Campinas.

Basílio, M. (1995). O fator semântico na flutuação substantivo/adjetivo em português. In: *Flores Verbais*. (Heye, Jürgen (Ed.)), pp.177-192. PUC, Rio de Janeiro.

Borba, F. S. et al. (1990) *Dicionário gramatical de verbos do português contemporâneo do Brasil*. Edunesp, São Paulo.

Borba, F. S. (1993). Roteiro para a montagem de um dicionário de usos do português contemporâneo do Brasil. In: *Estudos sobre lexicografia*. (Zambonin, D. J. (Ed.)), pp. 7-32 UNESP, Araraquara.

Borba, F. S. (1994). Lexias complexas. ms.

Borba, F. S. (1996). *Uma teoria de valências para o português*. Ática, São Paulo.

Borges Neto, J. (1991). *Adjetivos. Predicados extensionais e predicados intensionais*. Unicamp, Campinas.

Carras, C. (1992). Proposta de articulação da microsemântica com a delimitação de unidades de língua para o tratamento lexicográfico. *Estudos lingüísticos*, 21, pp. 569-575.

Ilari, R. et al. (1993). Adjetivos e substantivos: uma ou duas classes? ms.

Lemle, M. (1984). *Análise sintática. Teoria geral e descrição do português*. Ática, São Paulo.

Levi, J. N. (1978). *The syntax and semantics of complex nominals*. Academic Press, New York.

Lieber, R. (1983). Argument linking and compounds in English. *Linguistic Inquiry*, **14**(2), pp. 251-285.

Lobato, L. M. P. (1994). A concordância nominal no português do Brasil à luz da teoria de princípios e parâmetros e da sociolinguística variacionista. *Delta*, **10**, pp.173-212.

Mattoso Camara, J. M. (1970). *Estrutura da língua portuguesa*. Vozes, Petrópolis.

Noailly, M. (1990). Le substantif épithète. PUF, Paris.

Pagotto, E. G. (1994). A metáfora e as classes gramaticais. *Estudos Linguísticos*, **23**, pp.128-134.

Sandmann, A. J. (1988). *Competência lexical. Produtividade, Restrições e Bloqueio*. UFPR, Curitiba.