### Syntax and Semantics of Adjectives in Cape Verdean Creole:

### A View from Markedness

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#### **Abstract**

The main goal of this work is to describe some grammatical properties observed in Cape Verdean Creole (CVC), which is a less-studied language. In particular, we focus on the semantic restriction of adjectives observed in CVC and suggest that marked structures in individual languages need to satisfy additional semantic requirements at the interface by extending Pires and Taylor's (2007) common ground requirement for wh-in-situ phenomena in overt wh-fronting languages.

### 1 Introduction

This work aims to describe some grammatical properties observed in Cape Verdean Creole (henceforth CVC), which is a Portuguese-based creole, through comparison with other languages. The specific case we examine here is the semantic restriction of adjectives.

The paper is organized as follows: After presenting some basic properties of adjectives in CVC, Section 2 discusses two types of semantic restriction in CVC; one is gained through agreement while the other is triggered by movement, the latter of which we focus on in this work. Section 3 presents the syntactic structure which generates the semantic restriction, based on Cinque (2010), and also considers how semantic differences are obtained between unmarked

structures and marked structures in a single language. We also present some similarities between the semantic restriction of adjectives in CVC and wh-in-situ phenomena observed in overt wh-fronting languages, based on Pires and Taylor (2007), and propose that marked structures, but not unmarked ones, in a given language need to satisfy additional semantic requirements. The final section clarifies some consequences obtained from the proposed analysis and concludes our work.

### 2 Semantic Restrictions on Adjectives

In this section, we demonstrate some cases in which attributive adjectives are interpreted differently depending on their position. We show that postnominal adjectives are semantically restricted relative to prenominal ones in CVC. We also present similar phenomena observed in English.

# 2.1 Two Types of Semantic Restriction: Adjectives in Cape Verdean Creole

Phi-agreement between an adjective and its modifying noun optionally takes place in CVC and the default form (without agreement) is a masculine ending, according to Baptista (2002). If the head noun is human, for example, adjectives optionally agree with their modifying nouns for gender as in (1), but not for number as in (2).

- (1) Gender agreement
  - a. un mininu bunitu
    - a boy handsome.MAS 'a handsome boy'
  - b. un minina bunita
    - a girl beautiful.FEM 'a beautiful girl'
  - c. uns mininu bunitu some boy handsome.MAS 'some handsome boys'
  - d. un minina bunita some girl beautiful.FEM 'some beautiful girls'
- (2) Number agreement
  - a. Ano *e* animadu. NONCL COP courageous 'We are courageous.'
  - b. \*Ano *e* animadus.

    NONCL COP courageous.PLU

    'We are courageous.'

(Baptista 2002: 66)

Interestingly, phi-agreement triggers a semantic restriction, as given in (3).

- (3) a. Elsa *e* un **bon** mudjer. Elsa COP a good woman 'Elsa is a good woman.'
  - b. Elsa *e* un **boa** mudjer. Elsa COP a good woman 'Elsa is an attractive woman'

(Baptista 2002: 68)

The adjective *bon* is interpreted as 'good,' as in (3a). When the adjective *bon* changes to *boa*, which is a feminine ending, as in (3b), it is interpreted as 'attractive.' Based on Baptista's (2002) analysis, Obata and Morita (2018, 2019) claim that the adjective *boa* is derived from *bon* through (optional) agreement, which specifies/limits the meaning of the adjective *bon/boa*.<sup>1</sup>

<sup>1</sup> Semantic restriction by agreement can also be observed in Japanese. Japanese has two morphological forms of adnominal adjectives: the -*i* form ('stem-*i*') and the -*na* form ('stem-*na*'). Although those two forms are not interchangeable in most cases, there are some adjectival stems to which both the morphemes -*i* and -*na* can attach. But a semantic difference is observed between the -*i* and -*na* forms derived from the same stem, as given in (i).

CVC has another way of restricting the interpretations of adnominal adjectives. Some attributive adjectives in CVC can appear either prenominally or postnominally, which is also observed in French. Baptista (2002) observes that prenominal and postnominal adjectives differ in interpretation. <sup>2</sup> Notice that the position of adjectives does not affect the agreement pattern.

- (4) a. João ten un **noba mudjer**. John has a new wife 'John has a new wife.'
- (i) a. ooki-i ani big-I elder.brother '(physically) big elder brother' 'older elder brother'
  - b. ooki-na anibig-NA elder.brother'(physically) big elder brother'#'older elder brother'

The -*i* form *ooki-i* is ambiguous between '(physically) big elder brother' and 'older elder brother,' while the -*na* form lacks the latter interpretation. Obata and Morita (2018, 2019) propose that the -*na* form is obtained by phi-agreement, which triggers the semantic restriction. See Obata and Morita (2018, 2019) for more details.

<sup>2</sup> One might wonder if the semantic restriction we are discussing is observed not only in CVC but also in French. It can also be observed in French that attributive adjectives have different interpretations depending on their positions. However, the semantic restriction does not take place by changing the order of adjectives and nouns in French. Consider the adjective *faux*, for example.

- (i) a. de **faux** pianos some false pianos 'false (fake) pianos'
  - b. des pianos faux some pianos false 'pianos that are out of tune'

(Bouchard 2002: 74)

According to Bouchard (2002), the adjective *faux* means 'false, fake' in the prenominal position, as in (ia). When the adjective *faux* appears postnominally, as in (ib), it is interpreted as 'out of tune.' Following Bouchard, we assume that the difference in meaning between the prenominal adjective *faux* in (ia) and the postnominal one in (ib) is due to the difference in modification: the prenominal adjective modifies a subpart of the noun, while the postnominal adjective modifies the entirety of the noun.

- b. João ten un **mudjer noba**. John has a wife young 'John has a young wife.'
- (5) a. Tenha un grandi omi ki ta txoma was a big man COMP TMA call Nho Djiku. Nho Djiku 'There was an big man whose name was Nho Djiku.'
  - b. Tenha un omi grandi ki ta txoma was a old man COMP TMA call Nho Djiku.
    Nho Djiku 'There was an old man whose name was Nho Djiku.'

(Baptista 2002: 70, Marlyse Baptista p.c.)

The adjective *noba*, meaning 'new' in English, is interpreted differently depending on where it appears. The prenominal adjective noba in (4a) is interpreted as 'new,' while the postnominal one in (4b) is interpreted as 'young.' Given that 'young' belongs to the semantic range of 'new,' the semantic range of the adjective noba is narrowed down and limited to 'young' when the adjective appears in the postnominal position. Also, the adjective grandi meaning 'great' in English is interpreted as 'big/tall/great' in the prenominal position as in (5a) while the postnominal one in (5b) is interpreted as 'old'. Since 'big' includes the meaning of 'old' e.g. in big brother, the semantic range of grandi is narrowed down and limited to 'old' in this case, too. In other words, a semantic restriction is observable in the case of postnominal adjectives.

To sum up, two semantic restriction cases are observed in CVC: semantic restriction occurs through agreement, and it can be also observed by changing the order of adjectives and nouns. In this paper, we especially focus on the latter case, in which semantic restriction occurs by changing word order.

#### 2.2 Adjectives in English

The same type of semantic restriction can be also found in English. According to Cinque (2010), prenominal and postnominal adjectives differ in meaning in English. The adjective *possible*, for example, is interpreted either as 'potential' or as 'can be done or achieved' in the prenominal

position, while it only has the latter interpretation in the postnominal position.

- (6) Mary interviewed every **possible** candidate.
  - a. 'Mary interviewed every potential candidate.'
  - b. 'Mary interviewed every candidate that was possible for her to interview.'
- (7) Mary interviewed every candidate **possible**.
  - a. #'Mary interviewed every potential candidate.'
  - b. 'Mary interviewed every candidate that was possible for her to interview.'

(Cinque 2010: 8)

The prenominal adjective *possible* in (6) is ambiguous between two readings: (6a) and (6b) while the postnominal one in (7) has only one reading, (7b), in which the reading is disambiguated. Again, a semantic restriction occurs when attributive adjectives appear in the postnominal position, just like in CVC.

Notice that the two interpretations of the prenominal adjective *possible* in (6a) and (6b) do not result from a difference in how the adjective modifies the noun. The above case should be distinguished from the following case, in which the prenominal adjective *beautiful* in (8) is ambiguous between two readings in (8a) and (8b).

- (8) Olga is a beautiful dancer.
  - a. 'Olga is a dancer who dances beautifully.'
  - b. 'Olga is a dancer and she is beautiful.'

(Larson 1999)

Given that the meaning of the noun *dancer* is paraphrased as 'a person who dances,' the adjective *beautiful* is interpreted differently depending on whether the adjective modifies the individual or the hidden event denoted by the noun. When the adjective modifies the event 'dance,' it is interpreted as in (8a). The adjective, on the other, is interpreted as in (8b) when it modifies a person who habitually dances. In this paper, we do not deal with this case, in which semantic ambiguity is caused by a difference in modification of nouns by adjectives.

In sum, a semantic restriction results from changing the order of adjectives and nouns in CVC as well as in English.

# 3 Semantic Restriction in Marked Structures

In order to explain why and how a semantic restriction occurs by changing word order, we consider the following two questions. First, which of the orders AP-NP and NP-AP is unmarked in CVC and English? Second, why are postnominal adjectives semantically restricted in CVC and English?

In this section, we demonstrate that the order AP-NP is unmarked in both CVC and English, and semantic restriction occurs only in the marked order NP-AP. We also show another case where a semantic restriction occurs in the marked structure: wh-in-situ in overt wh-fronting languages. By extending Pires and Taylor's (2007) common ground requirement for wh-in-situ, we claim that syntactic representations including structures can be interpreted properly at the semantic interface by satisfying an additional semantic requirement, which forces postnominal adjectives to be disambiguated among several possible interpretations.

## 3.1 Structural Analysis of the Order of Adjectives and Nouns

Let us consider the research question of which of the orders AP-NP and NP-AP is unmarked in CVC and English. Following Cinque (2010), we assume that there is only one structure available for all languages, and all attributive adjectives are merged into the prenominal position. As in (9), the functional head F is first merged with NP, and then adjectives are merged. F is the functional head which constructs a modifying relation between AP and NP, in accordance with Cinque (2010):

### (9) [FP AP F [FP AP F [FP AP F NP]]]

Based on Cinque's structural analysis, the order of NP-AP is derived from the order of AP-NP by applying syntactic movement/Internal Merge. The order NP-AP is obtained when NP moves to the specifier of FP, as shown in (10b). If syntactic movement does not take place, the order AP-NP is available, as in (10a).

(10) a. AP-NP: [FP F [FP AP F NP]] b. NP-AP: [FP NP F [FP AP F < NP>]] According to Cinque (2005, 2010), syntactic movement of NP to the specifier of FP is triggered by a nominal feature. He proposes that each phrase has a nominal feature to be licensed, and this can be satisfied either by movement of NP or by merging a nominal feature, which agrees with NP without movement.

parametric It is a matter of variation across/within languages whether syntactic movement of NP takes place or not: some languages employ the movement strategy for a nominal feature to be licensed, others employ the non-movement strategy, and still others employ both. Cinque (2005, 2010) claims that many attributive adjectives in Romance languages such as French and Italian obligatorily appear postnominally, and thus the derived order NP-AP is unmarked in these languages. In Germanic languages such as English and German, on the other hand, the base-generated order AP-NP is unmarked, since adjectives usually appear in the prenominal position. That is, the derived order/structure is marked in some languages, while it is unmarked in other languages.

Recall that a semantic restriction can be observed by changing the order of adjectives and nouns in English, whose data in (6) and (7) are repeated as (11) and (12).

- (11) Mary interviewed every **possible** candidate.
  - a. 'Mary interviewed every potential candidate.'
  - b. 'Mary interviewed every candidate that was possible for her to interview.'
- (12) Mary interviewed every candidate **possible**.
  - a. #'Mary interviewed every potential candidate.'
  - b. 'Mary interviewed every candidate that was possible for her to interview.'

Since the order NP-AP is allowed only with some specific adjectives, it is reasonable to assume that in English the order AP-NP is unmarked while the order NP-AP is marked. Under this assumption, the adjective *possible* is interpreted more restrictedly in the marked structure (12) than in the unmarked structure (11). That is, we can make the generalization that the semantic restriction occurs only in the marked structure.

We have seen that the same pattern of semantic restriction can be also observed in CVC, as repeated in (13).

- (13) a. João ten un **noba mudjer**. John has a new wife 'John has a new wife.'
  - b. João ten un **mudjer noba**. John has a wife young 'John has a young wife.'

(Baptista 2002: 70)

Similar to French, many adjectives in CVC appear postnominally, and some adjectives, including *noba* ('new'), *grandi* ('great'), and *bon* ('good'), occur prenominally. In this sense, CVC employs both orders as unmarked and either of the orders is chosen depending on the type of adjective. That is, we can say that the AP-NP order is unmarked in (13), just as in English. The semantic range of adjective *noba* is restricted in the marked NP-AP structure. Under this view, the semantic restriction is present in the marked structure in CVC.

To sum up, we have demonstrated that the interpretations of attributive adjectives are restricted in the marked structure: the NP-AP order is marked both in English and in some adjectives of CVC, so that postnominal adjectives have more restricted interpretations than prenominal ones.

# 3.2 Wh-in-situ in Wh-Fronting Languages: The Common Ground Requirement

In the above section, we presented the generalization that the marked structure causes a semantic restriction in the case of adjectives in English and CVC. In fact, the same type of semantic restriction can be also observed in the case of wh-in-situ in overt wh-fronting languages such as English.

According to Pires and Taylor (2007), wh-insitu is allowed in a single wh-question in a language like English, and is not limited to echoquestions, as shown below:

- (14) Wh-question with overt wh-fronting:
  - a. What did you eat?
  - b. \*Did you eat what?
- (15) Echo-question
  - A: Mary ate a skunk.
  - B: Mary ate WHAT ↑?

(16) [+specific] question

A: I made desserts.

B: You made [what ↑ kind of desserts ↓ ]?

(17) Expect-question

A: [employee]: I made many different kinds of desserts.

B: [manager]: So, you made [how many cookies ↓ ]?

(Pires and Taylor 2007: 202-203)

The wh-phrase standardly undergoes overt movement in English, as in (14). As in (15)-(17), however, there are some cases in which the whphrases can stay in-situ in single wh-questions. (15) is an example of an echo-question, which repeats a part or all of the sentence which has been just uttered. (16) is an example of a [+specific] question, requesting more specific information about the utterance which has been just given. In (16), that is, B is asking for more specific information about desserts (e.g. ice cream, chocolate cakes, etc.) (17) is an example of an expect-question, asking for further information. In (17), B is expecting that A made several desserts, including cookies, and requesting the number of cookies. Under these specific environments, wh-in-situ is allowed even in an overt wh-fronting language like English.

Considering possible answers to each of the question sentences in (14)-(17), we can find clear differences between (14) and (15)-(17). In (14), everything you ate can be a possible answer. In (15)-(17), on the other hand, the range of possible answers is more restricted. In (15), for example, what A said Mary ate is the only possible answer. In (16)-(17), the utterance by A which has been just given limits the possible answers to B's question. Pires and Taylor (2007) suggest that those wh-in-situ examples need to satisfy the common ground requirement, which requires the set of possible answers to those questions to be part of the common ground defined in Stalnaker (1978: 704):

#### (18) Common Ground:

"Presuppositions are what is taken by the speaker to be the common ground of the participants of the conversation, what is treated [by the speaker, AP&HT] as their common knowledge or mutual knowledge."

(Pires and Taylor 2007: 205)

In other words, the possible answers are restricted by the common ground requirement, and only when this requirement can be satisfied, wh-in-situ is allowed in overt wh-fronting languages. In this sense, this semantic-pragmatic requirement makes the marked structure (i.e. wh-in-situ) interpretable properly at the interface.

Interestingly, the common ground requirement needs to be satisfied only in the marked structure. Since English is an overt wh-fronting language, wh-phrases undergo overt movement, which is the unmarked structure in this language. Remember that adjectives in English and CVC also show a semantic restriction only in the marked structure: the NP-AP order. Thus, we can say that wh-in-situ phenomena in English and the NP-AP order in English and CVC behave in the same manner with respect to semantic restrictions in the marked structures, so the generalization we presented in Section 3.1 gains additional empirical support from wh-in-situ phenomena.

## **3.3** Semantic Disambiguation of Adjectives at the Conceptual-Intentional (CI) interface

As discussed in the last section, the marked structure (i.e. wh-in-situ in overt wh-fronting languages) can be properly interpreted at the interface by satisfying the common ground requirement, which is an additional semantic(pragmatic) requirement. Based on this view, we can say that the marked NP-AP structure can be ruled in and interpreted properly at the interface by satisfying an additional semantic requirement. This is why adjectives cannot be ambiguous among several possible interpretations in the marked structure, unlike in the unmarked structure. That is, the additional semantic requirement in this case is the semantic disambiguation requirement, which limits several possible interpretations of adjectives to a single interpretation. By satisfying this additional requirement, the NP-AP structure in English and CVC can be properly interpreted at the interface.

Although we did not discuss in detail another type of semantic restriction triggered through syntactic agreement in (3), which is studied in Obata and Morita (2018, 2019), the meaning of *bon/boa* meaning 'good' is limited to the specific meaning 'attractive' if agreement takes place. In CVC, gender agreement between an adjective and its modifying noun is optional and the default foam,

a masculine ending, is assigned if agreement does not take place. Considering the optionality of gender agreement and the existence of the default form, we can say that the option of applying syntactic agreement is marked. The proposed analysis can thus be extended to another type of semantic restriction triggered by agreement.

### 4 Consequences and Conclusion

In this paper, we have seen how a semantic restriction occurs in the case of adjectives and proposed a theory of why it happens. We demonstrated that markedness matters: in the marked structure, but not in the unmarked structure, the additional semantic requirement, i.e. the semantic disambiguation requirement, needs to be satisfied, so that keeping adjectives ambiguous is not allowed in the marked structure. We extended Pires and Taylor's (2007) common ground requirement for wh-in-situ phenomena in overt wh-fronting languages. If the proposed analysis is on the right track, we can find semantic and syntactic commonalities between adjectives and wh-questions.

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