

Double Object Constructions in Afro-Brazilian Portuguese: contact driven L2 learning and Maximize Minimal Means

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Abstract

During the colonial period (16th - 19th centuries), Brazil was a multilingual country, home to Portuguese, Indigenous peoples, and Africans. Portuguese was learned as a second language by the Africans brought to Brazil by the slave trade, mainly under the influence of the Bantu languages the slaves spoke. From this language contact, an Afro-Brazilian Portuguese variety has emerged (ABP) which displays a ditransitive construction with an unmarked Goal dative, and *V-Goal-Theme* order, similar to Double Object Constructions (DOC) in English. We propose that the so-called DOC in ABP can be understood in terms of the Maximizing Minimal Means model (Biberauer 2018, 2019). In this model, Feature Economy and Feature/Input

Generalization (Biberauer & Roberts 2017) constitute a major factor in L2 learning in contact scenarios. For the innovative ABP structure, the [+animate] and low applicative features of the Bantu substrate grammars are shown to have been key in the first generation's L2 acquisition of a marked Classical Portuguese *V-Goal-Theme* structure. The structure becomes established in subsequent L1 acquisition of ABP, with expansion beyond the original core structures.

Keywords: Double Object Constructions, Afro-Brazilian Portuguese, language contact, L2 acquisition.

1. Introduction

During the colonial period (16th - 19th centuries), Brazil was a multilingual country, given the contact between Portuguese, native Indigenous peoples, and Africans. This historical context favored linguistic contact between speakers of different African languages (especially Bantu ones) and a smaller number of Portuguese colonizers. This scenario was a decisive factor in the selection of new linguistic patterns when the children of Africans, enslaved in Brazil, learned Portuguese as a second language (L2) (Mussa 1991; Pessoa de Castro 2001; Mattos e Silva 2004; Bonvini 2008, Avelar & Galves 2014, 2016, 2021; Petter 2015).¹

According to the literature, the Bantu ethnic group (especially the Kimbundu speakers) (cf. Pessoa de Castro 2001; Bonvini 2008) was more socially integrated with the settlers than the other ethnic groups that came to Brazil, especially in Bahia, this integration was possible due to cultural, linguistic, and religious characteristics (Mattoso 1982).² We will argue that the Afro-Brazilian Portuguese (ABP) structures analyzed in this paper show morphosyntactic properties that emerged from changes triggered by inter-linguistic contacts by intervention of the Bantu substratum (L1) of Africans who learned Portuguese as L2 (i.e. the first generation of ABP speakers). We also assume that the Africans' children in ABP communities had the Portuguese spoken as L2 by their parents as input during their acquisition process. In fact, it has been attested in the literature that some of these L2 features have remained in the following generations of ABP speakers, surviving until today (Baxter & Lucchesi 1997; Lucchesi 2009; Avelar & Galves 2014).

Portuguese was brought to Brazil in the 16th century. According to Galves (2007) based on analyzes of the *Tycho Brahe Corpus*,³ some specific morphosyntactic properties found in modern European Portuguese (EP) developed from the 18th century onwards, such as enclitic placement, subject position, and word order. According to the author, this period denotes the end of Classical Portuguese (CIP) and the beginning

¹ Following Lucchesi et al. (2009), the Portuguese variety spoken in these communities reflects the socio-historical reality of Brazil's generalized multilingualism when trans-Atlantic African trade provided slave labor for crops and mines (Mussa 1991, Mattos & Silva 2004).

² According to Vianna Filho (2008), the integration was possible due to a kind of psychological domination supported by patronage and miscegenation as well. For more information on how the Kimbundu-speaking slaves and the Portuguese speakers of the time were interacting with each other, cf. Mattoso (1982) and Vianna Filho (2008).

³ <http://www.tycho.iel.unicamp.br/~tycho/corpus/en/index.html>.

of EP. At the same time, Brazilian Portuguese (BP) was developing features of its own, mainly in the 18th century. Therefore, CIP is the common ground for BP and EP.

In this paper, we are concerned with an innovative ditransitive structure found in an ABP variety (see the examples in (3) below). This structure—whose dative argument is unmarked—is apparently absent in other Portuguese varieties. In the same context, modern EP has maintained the features found in CIP, i. e., the indirect argument is introduced by the preposition *a* (see (1)) and it always alternates with dative clitics:⁴

- (1) O José enviou uma carta ao Pedro / enviou-*lhe*
 the José send.PST.3SG a letter.ACC P_{a(to)}.the Pedro / sent-3SG.DAT
 ‘José sent a letter to Pedro/ him’

Diachronic studies of BP, on the other hand, have attested that the preposition *a* has been gradually replaced by *para* (see (2)) (Torres Morais & Berlinck 2018, Calindro 2020) since the 19th century. Additionally, the clitic alternation strategy was substituted by pronouns introduced by contentful prepositions, such as *para ele* - ‘to him’:⁵

- (2) O José enviou uma carta para o Pedro
 the José send.PST.3SG a letter.ACC P_{para(to)} the Pedro.OBL
 / *para ele*
 / P_{para(to)} him. OBL
 ‘José sent a letter to Pedro/to him’

Here we show by means of data collected from four rural Afro-Brazilian communities in Bahia that there is another structure that is not found either in CIP nor in BP (Lucchesi & Mello 2009; Barros 2018; Souza, Barros & Oliveira 2020). In this structure, the dative argument may occur without any marker (\emptyset), Barros (2018: 170-192) (see (3)):⁶

- (3) a. deu \emptyset o japonês vinte mil (HV-20)
 give-.PST.3SG P \emptyset the Japanese.DAT twenty thousand.ACC
 ‘(someone) gave the Japanese man twenty thousand’
- b. dava \emptyset eles purgante (HV-13)
 give.PST.3SG P \emptyset them.DAT purgative.ACC

⁴ Abbreviations used in this paper recommended by the Leipzig Glossing Rules: 1: first person; 2: second person; 3: third person; ACC: accusative; APPL: applicative; ASP: aspect; DAT: dative; FOC: focus; NOM: nominative; OBL: oblique; P: preposition; PL: plural; POSS: possessive; PRS: present; PST: past; SG: singular. Abbreviations used by Marantz (1993:115): fv = final vowel; SP = Subject prefix (marking subject agreement), and by van der Wal (2017:121): SM: subject marker; OM: object marker.

⁵ In formal registers, Brazilians still use the preposition *a*, as it is learned through schooling. For a thorough discussion of the matter, cf. Calindro (2015).

⁶ HV = examples from the Helvécia Community; MTV = examples from the Montevidinha community; 20 = each code refers to a specific volunteer who collaborated to the data collection.

- ‘(someone) gave them purgative...’
- c. deu \emptyset Luísa iss’ái (HV-13)
 give.PST.3SG P \emptyset Luísa.DAT that-thing.ACC
 ‘(someone) gave Luísa that thing’
- d. (...) a cerâmica pra eu dá \emptyset mãe dele (MTV-09)
 (...) the pottery for me give.PRS.1SG P \emptyset mother of.him
 ‘(...) the pottery for me to give his mother’

In this paper, our goal is to demonstrate how the Maximize Minimal Means model (Biberauer 2018, 2019a, 2019b) enables us to understand the rise of \emptyset -Dat-marked ABP structures like those in (3), which emerged when Portuguese was learned as an L2 by African speakers of Bantu languages. We will argue that the structures in (3) bear similarities to the Double Object Construction (DOC) found in English and Bantu languages, both of which have been widely studied (Baker 1988; Larson 1988; Marantz 1993; Pylkkänen 2008; a.o.). We will show that the DOC phenomenon in ABP distinguishes this variety from the CIP.⁷ At the same time, it is also different from the structure in modern BP in (2), but it behaves to a great extent like corresponding structures in some Portuguese varieties spoken as an L2 in Africa (e.g. Mozambique, São Tomé and Angola, Gonçalves 2005; Gonçalves 2010; Avelar & Galves 2014).⁸ In order to fully comprehend the important role the syntax of Bantu languages has played in the formation of ABP, as well as the unique scenario in which this variety was formed, in the following section, we outline our corpus and the sociohistorical contextual factors that need to be born in mind. In Section 3, we present the main syntactico-semantic properties of the ditransitive constructions in all Portuguese varieties and in relevant Bantu languages, highlighting similarities and differences between these languages and ABP. In section 4, we explore the contexts where the dative marker has disappeared, drawing on Biberauer’s (2018, 2019a, 2019b) Maximize Minimal Means model to account for the observed patterns. We conclude with some final remarks.

2. The corpus and the historical background of the ABP communities

2.1. The corpus employed in this study

The main corpus analyzed in this paper was collected in 1994 the *Vertentes* Project.⁹ This project recorded spontaneous speech data from ABP speakers from the rural communities in Bahia, Brazil: Helvécia, in the Nova Viçosa city, Cinzento, in Planalto city, Barra and Bananal, in Rio de Contas city (Chapada Diamantina), and Sapé, Valença city (the latter close to Salvador, the capital of Bahia). We also will report

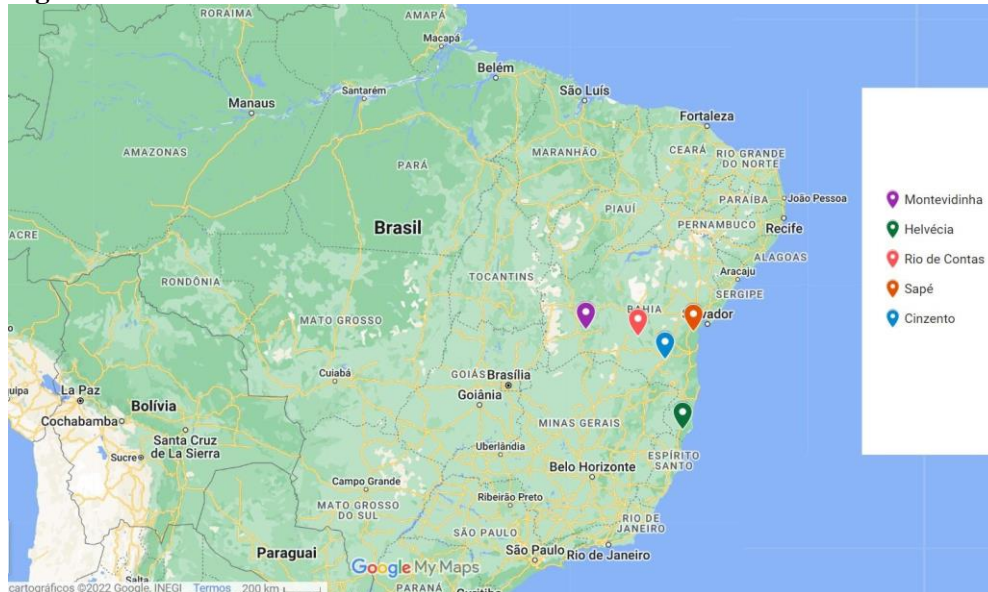
⁷ The proportion of immigrants from Portugal was 30% between the 16th and the early 19th century and 41% in the late 19th century (Mussa 1991:281).

⁸ As we will verify further in this paper, the younger generations of ABP speakers do not produce the unmarked structures as much as the older ones. Even though this is a very important aspect of the phenomenon analyzed here, we will focus on the rise of the \emptyset -Dat structures, leaving its fall for future work.

⁹ Coordinated by Dante Lucchesi and Alan Baxter, based at the Federal University of Bahia.

data from a corpus collected in 2016 by *Falares do Além São Francisco Project*)¹⁰ in the community of Montevidinha in Santa Maria da Vitória city (see the map below).

Figure 1. ABP communities in Bahia



Source: Google Maps

These communities were founded by Africans and Afro-Brazilians during the colonial period and they continue today, centering on the children, grandchildren, and great-grandchildren of the African first generation who were enslaved by Portuguese settlers (Baxter & Lucchesi 1997).

2.2. The communities that are the focus of this study and the languages that they spoke Importantly, Afro-Brazilian communities originally arose in *kilombos*¹¹ or on lands inherited by former slaves as payment for their labor. Nowadays they are still constituted by family groups who mainly survive on subsistence farming. They are located in areas generally far from urban centers and were isolated from major Brazilian cities until the second half of the 20th century, when these communities started to be integrated into the rest of the country due to progressive urbanization, as well as the introduction of energy and mass media (Lucchesi 2009).

Another important consideration is the imposition of the Portuguese language. It became the official language of communication in colonial Brazil in the 16th century, even though the country had a very diverse language environment of nearly 250 African languages and approximately 1,200 indigenous languages at the time (Mattos & Silva 2004; Rodrigues 1986, 2006; Petter 2006).¹² The children of Africans who

¹⁰ Lit. 'Speeches from the west of the San Francisco River'. This project is coordinated by Cristina Figueiredo and Isis Barros. The corpus was also analyzed by Souza, Barros & Oliveira (2020).

¹¹ This word in Kimbundu literally means 'war camp'. It is a Brazilian colony established by individuals of African ancestry. *Kilombos* are formed by Africans and Afro-Brazilians who strategically escaped from slavery and chose areas with no easy access.

¹² For more details on the legal measures taken by the Portuguese government to institutionalize Portuguese in Brazil cf. Rodrigues (1986, 2006), and Mattos e Silva (2004).

were born in ABP speaking-communities thus had as language input L2 Portuguese, i.e. something similar to what may be considered a pidgin. This enabled them to learn and develop a variety of Portuguese with some features of the substrate African languages, such as: topic-subject constructions, locative prepositions, comitative prepositions, relative clauses, negative clauses, anaphoric direct object, noun, and verb agreement, that have subsequently been preserved.¹³

As grammatical properties of the L2 Portuguese spoken by Africans who were born outside Brazil would have been integrated into the Portuguese acquired as an L1 by those born in Brazil, we hypothesize that this is the reason why the \emptyset -Dat DOC structure arose in the new generations of ABP speakers. It, therefore, constitutes an ultimately stable consequence of a stage in which Portuguese was imperfectly learned as an L2, in an unstable and untutored situation.

2.3 A special role for Bantu?

In this section, we will present evidence that Bantu languages played an important role in the multilingual Brazilian context, particularly insofar as ABP is concerned.

Initially, as shown by Mattoso (1982), Europeans in the American colonies came into contact with Africans originating from two main areas of African civilization in the 16th century: a. people from the *West African coast* (modern Ghana, Togo, Benin, Nigeria), which was populated by speakers of Ewe, Fon, Yorùbá, Mina and others; b. and people from *West-central Africa* (present-day Angola and the Democratic Republic of Congo), and *South-eastern Africa* (mainly Mozambique). These were Bantu speakers of what were the most common Bantu languages in Brazil, namely Kimbundu and Kikongo (Zone H), and Umbundu (Zone R) (Pessoa de Castro 2001; Bonvini 2008).¹⁴

Records of slaves found in Bahia show a large number of people from the (b) areas, indicating a preference of the settlers for slaves from this Bantu-speaking group. Besides, Bahia state is geographically closer to the coastal region of Angola, which implies a shorter, less expensive marine route (Vianna Filho 2008; Neves 2012). Even in modern times, Bahia has strongly preserved an African identity, both in society and religion (Albuquerque & Fraga Filho 2006:48). Finally, there are clear Bantu substrate influences on the Brazilian Portuguese lexicon more generally (Pessoa de Castro 2001). Some examples from Kimbundu include: ‘denço’ (*Ndenge*) – request for a cuddle; ‘cafuné’ (*kafune*) – caress; ‘moleque’ (*mu’leke*) – boy; ‘muvuca’ (*mvuca*) – agglomeration of people.

In the next section, we pursue the hypothesis that a Bantu substrate played an important role in giving rise to the unmarked dative construction that is the central focus here by introducing the dative structures found in the relevant varieties of Bantu and Portuguese.

¹³ For more information about socio-historical aspects and morphosyntactic features of ABP, cf. Lucchesi & Baxter (2006), Baxter (2009), Lucchesi (2009), Lucchesi 2012, Avelar & Galves (2014), Gomes (2014), Santos (2016), Barros (2018), and Barros et al. (2022) a. o.

¹⁴ Pessoa de Castro (2001) argues that the most common Bantu languages in Brazil were Kimbundu and Kikongo (Zone H) and Umbundu (Zone R), in addition to less widely spoken languages from zones A, L, K/R/H, P/S, and B/H. The Zones derive to Guthrie’s (1948) typology (cf. Schadeberg 2003 for an overview).

3. Ditransitive constructions: a crosslinguistic perspective, focusing in particular on Portuguese and Bantu

3.1. Ditransitives: understanding English in Bantu terms

Recall from the introduction to this paper that modern EP and BP both derive from CIP. In the 19th century, EP and BP parted ways in terms of the strategies they employ to introduce dative arguments in ditransitive sentences. ABP, however, differs from both of these varieties as it displays the DOC-like structure exemplified in (3) above.

Since Baker (1988) and Larson's (1988) works, structures with additional arguments in Bantu languages have frequently been related to two constructions in English:

- (4) a. John gave a book *to Mary*
 b. John gave *Mary* a book

Sentence (4a) is a Prepositional Dative Construction (PDC), while (4b) is a Double Object Construction (DOC). Marantz (1993) assumes PDCs are crosslinguistically unmarked ditransitive constructions. For Marantz, the Theme argument ('a book') receives Accusative Case from the verb, and the Goal Dative receives Case from the preposition. The typical word order of these constructions is *V-Theme-Goal*, in which the dative is asymmetrically c-commanded by the accusative object (Barss & Lasnik 1986; Larson 1988). In DOCs, the Case marker 'to' is removed from the Goal argument. The deletion of the dative marker poses a challenge to the theory, both in terms of Case marking and in terms of the word-order change from *V-Theme-Goal* to *V-Goal-Theme*, which influences c-command relations. In order to account for this alternation, Marantz (1993) resorted to examples from Bantu languages. In these languages, applicative morphemes are employed as a mechanism to increase valency, e.g. adding an indirect object to a basic monotransitive argument structure. Consider (5) and (6):

- (5) *Chichewa* (N30) (Alsina & Mchombo 1993:18)
 Chitsiru chi-na-gul-*ir*-a atsikana mphatso
 fool SP-PST-buy-APPL-fv girls gift
 'The fool bought a gift for the *girls*'

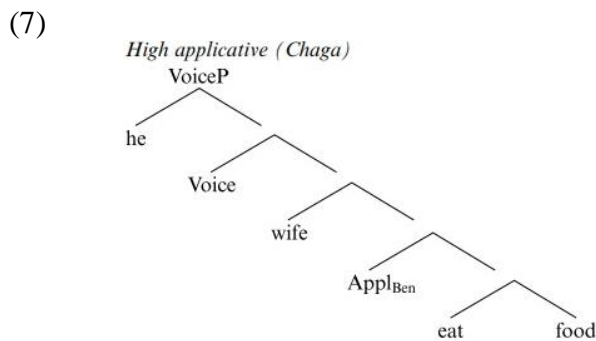
- (6) *Chaga* (E60) (Bresnan & Moshi 1990:149)
 a. N-*ä-ä-lyì-í-à* *m-kà* k-*élyá*
 FOC-1SG-PRS-eat-APPL-fv 1-wife 7-food
 'He is eating food for his *wife*'
 b. N- *ä - i - zrìc - í - à* *mbùyà*
 FOC-1SG-PRS-eat-APPL-fv 9-friend
 'He is running for a *friend*'

Chichewa and Chaga add an overt applicative morpheme to denote an additional argument with the Beneficiary theta-role. Based on this applicative morphology, Marantz proposed an applicative analysis for the English constructions, assuming a covert applicative head in (4b). The applicative head takes an event predicate (a VP) and introduces an argument, which is thematically related to the event

described by the verb; hence ApplP can be used in ditransitives. In PDCs, Marantz proposes the dative argument is a PP containing a lexical preposition.

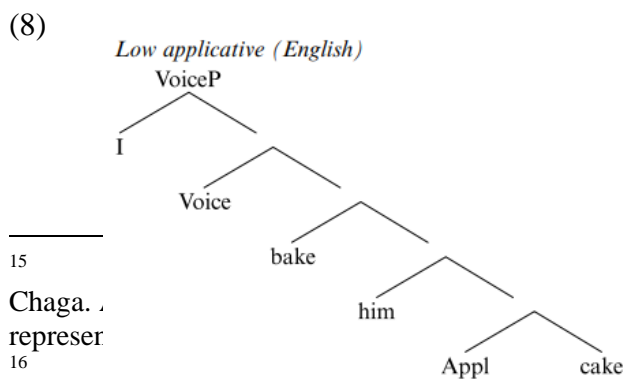
Based on Marantz, but focusing more on the semantics of applicative constructions, Pylkkänen (2008) demonstrated that the similarities among the structures in English and Bantu languages are only apparent. For instance, in Chaga (see 6), the applicative head does indeed establish a relation between the Beneficiary (*m-kà*, ‘wife’) and the event described by the VP, as proposed by Marantz (1993). In English, however, the ApplP relates the Theme to the Goal dative. That is, two distinct kinds of applicative structure need to be distinguished: one relating a Goal to an Event, the so-called *high applicative* found in Bantu, and one relating a Goal to a Theme, the so-called *low applicative* found in English.

The high applicative is in fact very similar to Voice as conceived in Pylkkänen (2008), i.e. as the introducer of the Agent argument: both Voice and the high applicative add a new participant to the event described by the verb. In (6a), for example, ‘he’ ate the food instead of ‘his wife’, i.e., he carried out the event at the Agent in her place (for her). The ApplP in this case is thus projected higher than the VP in the structure, i.e. it is a *high applicative*, as illustrated below:¹⁵



(Pylkkänen 2008:14)

The high applicative interpretation represented in (7) is unavailable in the English applicative construction: as mentioned above, in the DOC, there is specifically a relation between the accusative and the dative argument. In (4b), for example, there is an obligatory direct transfer between the two arguments, requiring that ‘Mary’ in fact received ‘the book’. As proposed by Pylkkänen (2008), this relation may be conveyed by a *low applicative* head, as the applied argument—the dative, in this example—is projected below the VP. Thus, DOCs in English are low applicatives:¹⁶



¹⁵

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kanen (2008:14).

(Pylkkänen 2008:14)

Pylkkänen proposed that (7) and (8) are only similar in terms of the asymmetric c-command relations they entail, as the IO is in a structurally higher position in both cases.¹⁷ In the next section, we will explore these structures in Bantu languages in a little more detail so that we can better understand the role that these structures may have played in the rise of the ABP structure, which is our central concern here.

3.2. *Dative constructions in Bantu languages*

Recall that it is our objective in this paper to understand the nature and origin of the \emptyset -DAT innovative ditransitive construction found in ABP. Following Avelar & Galves (2014) and Barros (2018), we argue that dative constructions in Bantu languages like those in examples (9-13) below may lead us to an explanation for the ABP phenomenon (see (3)).

According to the literature on Bantu languages, the ditransitive structures to be discussed here are very stable (Pachiarotti 2020);¹⁸ hence we are assuming that the examples found in the modern-day Bantu languages to be discussed below are representative of the languages brought to Brazil from the 17th century onwards.

The applied argument in Bantu languages has been argued to be introduced into the argument structure in two different ways. In so-called *symmetrical languages*—e.g. Chaga (E60), Chicheŵa (N30), Otjiherero (R30), Kikongo (H16) and others—the applied construction does not have a prepositional counterpart.¹⁹ Conversely, *asymmetrical languages* exhibit a dative alternation displaying both DOC and PDC, as is the case in English. Kimbundu (H20) and Umbundu (R11) are part of this group (Chatelain 1888-89; Wald 1973; van der Wal 2017, 2022).

In symmetrical languages, both objects can be marked by object agreement and can function as the primary object; these languages display a less rigid order. Importantly, according to van der Wal (2017, 2022), the symmetry in these languages entails implicational relationships: if a language is symmetrical for causatives, for example, it is also symmetrical for Beneficiary applicatives, and if it presents symmetry for applicatives, it is also symmetrical for lexical ditransitives (with Goal arguments).

By contrast, in asymmetrical languages, the constituent order is more restrictive: the primary object in *V-Goal-Theme* order may c-command the secondary

¹⁷ In terms of Principle A of the Binding Theory (Barss & Lasnik 1986), we therefore expect the Goal dative to be able to license a direct-object anaphor in its c-command domain, whereas the inverse (Theme licensing Goal anaphor) is impossible: *Mary showed [the children]_i [themselves]_i (in a mirror)* vs **Mary showed [themselves]_i [the children]_i.*

¹⁸ For more details, cf. Pachiarotti (2020). The author shows that the Bantu applicative pattern, in terms of which Beneficiaries and other indirect objects and further arguments are introduced, is one that is assumed to have been present in proto-Bantu (it can be traced back to Proto-Bantu *id) and it is also, very tellingly, found across the Bantu languages.

¹⁹ It is such as an applicative; cf. i.a. Bresnan & Moshi (1990).

object, but not the other way around. One diagnostic for distinguishing the primary object from the secondary object is that the former can become the subject of the corresponding passive, while the secondary object cannot (Hyman & Duranti 1982; Bresnan & Moshi 1990; Pykkänen 2008; van der Wal 2022).

Moreover, Hyman & Duranti (1982) have demonstrated that animacy plays an important role in determining word order in Bantu languages. In a language like Sotho (S33), for example, if two objects differ in animacy, the animate object must be the primary object. More generally, as the ditransitive examples (9-13) below also show, the position adjacent to the verb is essentially conditioned by the animacy feature of the dative object (Bresnan & Moshi 1990). As we will show in Section 4, this syntactico-semantic pattern centering on animacy in asymmetrical Bantu languages appears to have played a key role in determining the adjacency of Goal datives in ABP.

Let us now consider some examples from some of the specific Bantu languages that were spoken by the ABP communities under investigation here. The examples in (9) and (10) show that Umbundu and Kimbundu both have two possible ditransitive structures, i.e. both DOCs and PDCs. Sentence (9a) illustrates a DOC from Umbundu, where the derivational morphemes *-er-* / *-ir-* are added to the verbal root as realizations of the applicative functional head which allows the dative Goal argument to be introduced into the structure. Note that the word order of the applicative structure is *V-Goal-Theme*, which is identical both to DOCs in English (see (4b) above) and to the innovative structure in ABP. Sentence (9b), in turn, illustrates the prepositional dative counterpart, where the dative argument is introduced by preposition *kwa*.

- (9) *Umbundu* (adapted from Baker 1988:229-230)
- a. Ndi-na-tumiz-ir-a *mfumu* chipanda cha mowa (DOC)
 1SG-PST-send-APPL-ASP 1.boss calabash of beer
 ‘I sent the boss a gourd of beer’
- b. Ndi-na-tumiz-a chipanda cha mowa *kwa* *mfumu* (PDC)
 1SG-PST-send-ASP calabash of beer P_(to) 1.boss
 ‘I sent a gourd of beer to the boss’

As (10a-d) below show Kimbundu exhibits the same asymmetrical structures as Umbundu. Example (10a), from the 19th century, shows that these structures have at least not changed from the 19th century to current Kimbundu. In (10b), the dative is introduced by the locative prefix *ku* and follows the Theme, as expected for a PDC.

- (10) *Kimbundu* (adapted from Hagemeyer 2016:55)
- a. Mwene wa-ban-ene mon ‘ê asanji (DOC)
 NOM.3SG 3SG-give-PST 1.child poss.3SG little.chicken
 ‘He/She gave the child a little chicken’
- b. Nga-bana ma-divulu *ku-a-thu* (PDC)
 1SG-give.PST 6.books P_(to)-PL-people
 ‘I have given books to people’

The historical example in (10a) is particularly important for our analysis because it is evidence that this construction has not undergone variation and change.²⁰ Having established the diachronic stability of the ditransitive structures introduced here, we therefore assume that these dative constructions were present in the L1 grammars of African learners of Portuguese as an L2, which then played into the dropping of the dative marker that is required in Portuguese dative constructions. As a result, ABP contains similar constructions to the ones in (9a) and (10a), as exemplified in (3).

The two main languages that arrived via the slave trade in Bahia belong to the asymmetrical group, which presents a dative alternation (Kimbundu and Umbundu), with animacy determining a rigid word order pattern in terms of which the animate indirect object must directly follow the verb. Given this consistent pattern, it seems well motivated to pursue the idea that the dative alternation found in these languages may lead to an explanation for the occurrence of the innovative \emptyset -Dat pattern found in ABP. Furthermore, we also consider as relevant inputs data from symmetrical languages that were also observed in colonial Brazil, such as Kikongo in (11) and Otjiherero (12).

- (11) *Kikongo* (adapted from Fernando 2008:130 *apud* Baxter et al. 2014:297)
- | | | | |
|--------|----------|---------|---------|
| Nzumba | veen-e | mwa-ana | di-mpa |
| Nzumba | give-PST | 1.child | 5.bread |
- ‘Nzumba gave the child a bread’

The structures in Kikongo always exhibit *V-Goal-Theme* word order. Therefore, the example in Kikongo, as well as the ones in Umbundu and Kimbundu, does not display a specific dative marker. Besides, the noun-class prefix, *m-* (9a), *mo-* (10a), and *mwa* (11), indicate the class the Beneficiary belongs to, namely Class 1, which is used for human beings in general.

Other symmetrical Bantu languages, such as Otjiherero (12), show similar behavior to the asymmetrical languages above regarding the order *V-Goal-Theme*.

- (12) *Otjiherero* (van der Wal 2017:121)
- | | | | | |
|---------------|-----|----------|-----------------|----------|
| a. Omukazendu | ma | pe | <i>ovazandu</i> | ovikurya |
| 1.woman | PRS | 1SM.give | 2.boys | 8.food |
- ‘the woman gives the boys food’
- | | | | | |
|---------------|---------|-----------|------|----------|
| b. Omukazendu | me | <i>ve</i> | pe | ovikurya |
| 1.woman | PRS.1SM | 2OM | give | 8.food |
- ‘the woman gives them food’
- | | | | | |
|---------------|----|-----------|----|-----------------|
| c. Omukazendu | me | <i>vi</i> | pe | <i>ovazandu</i> |
|---------------|----|-----------|----|-----------------|

²⁰ We thank an anonymous reviewer for drawing our attention to the importance of establishing these structures that have not changed from the time Bantu languages started to arrive in Brazil, in the 17th century to the present. There is nothing in the literature on Bantu languages on this possible change, so we are assuming the structures have remained the same. Additionally, we found an example of Kimbundu of the 19th century from Chatelain (1888-89).

1.woman PRS.1SM 8OM give 2.boys
 ‘the woman gives it to the boys’

Examples (11-12) indicate a symmetrical ditransitive construction: both the unmarked Goal and Theme arguments may occur adjacent to the verb (Baxter, Mello & Santana 2014; van der Wal 2017). Even though the main languages that came to Brazil are asymmetrical, the ditransitives in symmetrical languages display similar morphosyntactic properties to those in asymmetrical languages in that both feature DOCs. A very important one that will be discussed in Section 4 is the role animacy plays in argument order.

In the next section, we will present the theoretical discussion on ditransitive constructions in the Portuguese superstratum to which the first ABP speakers would have been exposed.

3.3. Dative constructions in Portuguese

As stated in Section 1 above, modern EP and modern BP both derive from CIP. According to diachronic studies (Torres Morais & Salles 2010; Torres Morais & Berlinck 2018; Calindro 2015, 2020), the differences in the expression of dative arguments in BP emerged in the 19th century. Hence, we are assuming that the structures which served as input from 17th to 19th ABP speakers are the same as modern EP.

Let us assume, as seems plausible given the sociohistorical circumstances outlined above, the following diachronic sequence: Bantu language speakers arrived in Brazil; some learned what was CIP at the time as an L2, and some formed isolated communities where their children received as input this L2 Portuguese alongside Bantu languages as further (substrate) input.

At the same time, in other regions of Brazil, modern BP was independently developing its own properties. Therefore, when we consider modern EP, BP and ABP, the input received by their acquirers differs.

Based on Pykkänen’s applicative analysis, Torres Morais (2007) argues that dative phrases in EP are applicative structures (cf. Torres Morais 2007:99-101). More specifically, she assumes that the dative argument is introduced by a dummy preposition *a* and that it alternates with dative clitics (*lhe/lhes*) (13a), only when the argument is [+animate]. When the argument is [-animate] in EP, as a pure locative ‘Lisbon’ in (13b), the indirect object (IO) is introduced by the contentful preposition *para* and it does not alternate with clitics. Additionally, the dative argument introduced by *a* has the theta role of Goal (13a), whereas the IO introduced by *para* in EP may have the theta roles of Beneficiary ‘Maria’ in (13b) and Locative (13b):

- (13) a. O José enviou uma carta ao Pedro / enviou-lhe
 the José send.PST.3SG a letter P_{a(to)} Pedro / sent-3SG.DAT
 ‘José sent a letter to Pedro’
 b. O José enviou (*lhes) uma carta para Maria / para
 the José send.PST.3SG (3SG.DAT) a letter P_{para(to)} Maria / P_{para (to)}
 Lisboa
 Lisbon
 ‘José sent a letter to Lisbon’

- c. O José enviou uma carta ao Banco de Portugal / enviou-lhes
 the José send.PST.3SG a letter $P_{a(to)}$ Bank of Portugal / sent-3PL.DAT
 (adapted from Torres Morais 2007:91-105)

Torres Morais argues that the preposition *a* in EP is syntactically ambiguous: in (13a), it is a *dummy* marker which expresses a notion of transfer of possession between the direct object and the applied argument; alternatively, it may be a lexical preposition that contributes a directional meaning as in (13c). According to Torres Morais, the preposition *a* can occur with a locative if it entails [+animate] entities (13c). Thus, in the case of ‘Bank of Portugal’, when the complement is introduced by *a*, it means ‘the people who work in the bank’, and can be pronominalized with *lhes*; if the location itself is intended, the dative clitic would not be possible and the locative should be introduced by *para* (cf. 13b).²¹

Furthermore, the *V-Theme-Goal* order in ditransitives may vary, as the marked order *V-Goal-Theme* is also attested in both BP and EP (for more details on ditransitive word order in Portuguese, cf. Cépeda & Cyrino 2020). For instance, in (14), the [+animate] IA introduced by the preposition *a* is adjacent to the verb:

Preposition *a* + definite article

- (14) Eu dei à Maria o livro
 I give.PST.1SG $P_{a(to)}$.the Maria the book
 ‘I gave a book to Maria’

Additionally, Baxter, Mello & Santana (2014), who focus on the contact between Bantu languages and Portuguese, present examples similar to (14) in structures featuring *verba discendi*, consider example (15):

Preposition *a* + definite article:

- (15) Eu disse à menina que cozinhasse arroz
 I tell.PST.1SG $P_{a(to)}$.the girl that cook rice
 ‘I told the girl to cook rice’

According to the authors, in a contact situation, the Portuguese L2 learner would not interpret the *a*-marked argument adjacent to the verb as a marked order. In Portuguese, preposition *a* presents a phonological weakness, i.e. it is ambiguous for Portuguese L2 learners, as it may also be interpreted as simply the definite feminine article *a*, and not as a dative marker:

Definite feminine article

- (16) Encontrei a menina ontem
 find.PST.1SG the girl yesterday

²¹ We would like to thank Maria Aparecida Torres Morais for calling our attention to the fact that the preposition *a* may introduce locatives in contexts as ‘João mandou o funcionário ao mercado’ lit. John sent the employee to the market. This example provides more evidence of the multifunctionality the preposition *a* shows in Portuguese. We leave more details on locatives introduced by the preposition *a* for future work.

This fact, coupled with clitics in the Portuguese superstratum which have [+animate] features (cf. Carvalho & Calindro 2018) may have been one trigger for Africans learning Portuguese to drop the marker that introduces datives (see Section 4.3 below for further discussion). What is also noteworthy is that this clitic appears enclitic to the verb (13a).²² *Lhe*-containing structures will, then, provide learners with further input featuring the marked *V-Goal-Theme* order exemplified in (14) and (15) above.

Lastly, the feminine accusative clitic is *a* as well, and it can occur enclitically, as in (17):²³

- Accusative clitic
- (17) Encontrei-*a* ontem
 find.PST.1SG-3SG.ACC yesterday

Considering the input for first-generation ABP speakers, it would seem that they may have encountered the following scenario: an element *a*, which introduces [+animate] IOs, but which may also introduce [-animate] IOs with animate associations (i.e. “indirectly animate” IOs, as in synecdoche like ‘Bank of Portugal’ in (13c)), and that may, additionally, appear in the following configurations in (18):

- (18) a. *V a DP DP* (examples 14 and 15)
 dative marker
- b. *V a NP* (example 16)
 definite article
- c. *V-a* (example 17)
 enclitic accusative

A therefore emerges as a multifunctional element, a point to which we will return below.

4. The innovated dative constructions in ABP: data and analysis

4.1. The explanandum: an empirical overview

In ABP, Goal datives can occur with markers *para*, *a* or \emptyset (see (19-20)). The preferred word order of dative constructions with preposition *para* is *V-Theme-Goal* (19), while

²² According to Galves (2001, 2007; Calindro 2009, 2012 a.m.o.), in the 18th century, EP developed predominantly enclitic placement, exemplified in (18), leaving only a subset of exceptional contexts where proclisis is mandatory; these include *wh*- and negative elements, as in ‘*não a encontrei ontem*’, lit. ‘not her found yesterday’, translated as ‘(someone) did not find her’.

²³ We would like to thank Theresa Biberauer for drawing our attention to these correlations.

datives marked by *a* (20a) and \emptyset -Dat (20b) prefer the order *V-Goal-Theme* (cf. Barros 2018).²⁴

- (19) dá aquele ôro pas pessoa toda (RC-07)
 give.PRS.3SG that gold.ACC P_{para(to)}.the people all.DAT
 ‘Then, when he/she dies, he/she comes to give that gold to all people’
- (20) a. Eu digo a ela: minha fia, você faz feito eu (SP-09)
 I tell.PRS.1SG P_{a(to)} her. DAT my daughter you do like I
 ‘I tell her: my daughter, you do it like me’
- b. dá \emptyset *ele* recado certim (HV-12)
 give.PRS.3SG P \emptyset 3SG. DAT message right.ACC
 ‘(Someone) give him the right message’

(Barros 2018:177, 203)

In order to explain the emergence of \emptyset -Dat in the DOC like construction (20b) in the ABP, we will base our assumptions on the notion of Maximize Minimal Means (Biberauer 2018, 2019a, 2019b), which is briefly introduced in the following section.

4.2. The theoretical framework: Maximize Minimal Means (MMM)

The MMM model by Biberauer (2018, 2019a, 2019b) aims to explain the process of language acquisition and the variation and change it may give rise to based on a minimalist approach, assuming a minimally specified Universal Grammar (UG). The MMM stems from the emergentist view that children’s acquisition of the kinds of parameters that are evident in adult systems is not entirely shaped by UG. Instead, these adult specifications emerge from the interaction of all three of Chomsky’s (2005: 6) factors, reinterpreted in Biberauer’s model as follows:

- (21) 1. UG (minimally specified) + 2. Primary Linguistic Data (= intake) + 3.
 general cognitive principles = an adult L1 grammar

In this model, parameters (or formalized points of grammatical variation) are thus defined in the light of the language acquisition process, with parametric variation being an emergent property of the interaction between the first two factors, from classic Chomskyan models (e.g. Chomsky 1981), and the general-cognitive third factor which Biberauer (2019a, b) argues the MMM bias to be an instantiation of Biberauer & Roberts (2017) further argue that this third factor plays an important role in guiding children to set the parameters acquired from exposure to PLD (Primary linguistic data), thus laying the foundation for both acquisition and, consequently, the process of language change. Two key strategies for language learning point to the manifestation of the third factor, as proposed by Biberauer (2019b:212, 213): *Feature Economy*, which requires the acquirer to postulate the minimum possible formal features to account for the input, and *Input* or *Feature Generalization*, which, crucially, drives the acquirer to maximize the features already postulated at a given stage in the acquisition process to account for new regularities in the input or, more accurately, *intake*. Biberauer (2018: 133) assumes that the PLD should not be

²⁴ RC = examples from the Rio de Contas community; SP = examples from the Sapé community.

interpreted as ‘everything the acquirer hears’, but rather as that which is *accessible* to the acquirer.

Biberauer & Roberts (2017) consider the configuration of parameters to arise from the acquisition of formal features associated with functional heads, i.e. they assume formal features to modulate language variation. Biberauer (2019a, 2019b) specifically assumes that the acquisition process is a consequence of *intake-regulated* identification of morphosyntactic features in the PLD.²⁵ In the present context, then, we might expect word-order variation, inflectional morphology, multifunctionality (surrounding the *a* morpheme, for example), and the consistent use of *para* versus *a* in given structures to be particularly important. Crucially, the MMM model assumes that acquirers will be conservative about postulating new formal features since these are only postulated to account for a newly registered systematic grammatical regularity which the previously acquired formal features cannot account for; this is what Feature Economy requires, therefore the formal features are emergent rather than given by UG, as we will further discuss in the next section. On the other hand, the acquirer must be liberal in extending the knowledge already achieved to new domains; this is Input or Feature Generalization, or, as Biberauer & Roberts (2017: 147) formulate it “any formal feature for which there is unambiguous evidence is generalized to the greatest available extent”.

With this theoretical background in place, let us return to the empirical pattern that is the focus of this paper.

4.3. Applying the MMM model to the ABP situation: why these varieties differ from EP and BP

As already noted in Section 3.2 above, the first generation of ABP speakers would have been native speakers of Bantu languages, who were exposed to CIP as an L2. They would therefore have had a DOC in their native language (see 9-12) and, with it, the possibility of expressing Goals without a preposition). Importantly, the DOC in these languages is limited to animate Goals; the prepositionally marked PDC, by contrast, may feature both animate and inanimate datives, that is, the *V-Goal-Theme* word-order pattern is not available to all Goals; instead, it is consistently restricted to [+animate] Goals. Significantly, animacy is also widely believed to be the property shared by Noun Classes 1 and 2 in Bantu languages (Msaka 2019). Further, animacy is also known to be early-acquired and to play a key role in shaping thematic structure (Becker 2014). From an MMM perspective, then, animacy constitutes the kind of property that is accessible to language acquirers at an early stage in their development, with the result that it could also plausibly serve as the basis for the postulation of a grammar-structuring formal feature, [animate].

More precisely, in the MMM model, the formal features that structure natural-language grammars are emergent rather than given by Universal Grammar. As such, there needs to be an account of how these features arise. Biberauer (2019a,b) proposes as one basis for the postulation of a formal feature the acquirer’s recognition of a salient semantic property that correlates with an observed grammatical regularity. In the present case, the acquirer’s early sensitivity to animacy as a conceptual/semantic

²⁵ Certain aspects of the input are highlighted as being of particular importance, such as morphological doubling, word order variation, and multifunctionality (cf. Biberauer 2019a: 54-59 for discussion).

notion differentiating labeled entities (»nouns) in Bantu languages is taken to mean that animacy is available as the conceptual/semantic basis for the postulation of a formal feature, [animate]. Significantly, animate vs inanimate noun classes are acquired before the animacy restriction on the *V-Goal-Theme* structure: Demuth (2003: 211-214) notes that noun classes are acquired by the age of 3; by contrast, ‘[e]xperimental evidence shows that even 8-year-olds are not yet adult-like in their placement of animate applicative objects immediately after the verb’ (Demuth 2003:216).²⁶ The *V-Goal-Theme* structure, then, is late-acquired in Bantu languages. In MMM terms, we would therefore expect the [animate] feature postulated in the acquisition of noun classes to constitute a plausible candidate for generalization from this early domain to the late(r) dative one.

For the first generation of ABP speakers, then, we assume that [animate] would have been a (productive) part of the formal specification of their L1, playing a role in relation to noun-class syntax and DOC structures.²⁷ When confronted with CIP input, this factor may have influenced these adult L2 learners as “the specifications of the L1 grammar necessarily constitute one of the ‘means’ that are at the L2 learner’s disposal in the context of the L2 learning task” (Biberauer 2018:141). More precisely, we might expect that, in making sense of marked *a*-containing *V-Goal-Theme* dative structures like (14), the L2 CIP acquirers whose L2 systems served as the basis for ABP analyzed *a*-marked *V-Goal-Theme* ditransitives featuring animate Goals as entirely neutral, following the applicative pattern in their L1. That is, instead of attributing these structures the marked status they held in CIP (and still do in EP), the first-generation L2 ABP speakers interpreted these structures via the “means” provided by their L1.²⁸ The existence in CIP of [+animate] dative clitic-containing structures like (13a), would further have reinforced the early ABP learners and acquirers in relating the *V-Goal-Theme* order to [+animate] Goal DPs: as (13a) shows, *lhe*-containing structures necessarily require the [+animate] dative clitic to directly follow the verb.

From an MMM perspective, then, the first generation of ABP speakers would not have found the distinctive word-order pattern in CIP’s *V-Goal-Theme* structures challenging: they could simply map this onto the corresponding applicative-based word-order pattern in their L1, harnessing the same feature, [+animate] (Feature Economy). The fact that these structures are most common where the lexical verb is a dynamic verb of transfer, denoting physical transfer of possession (like ‘give’) or locomotion to a [+animate] Goal (cf. Barros 2018), therefore follows: this is what we

²⁶ Demuth (2002: 216) attributes this late acquisition to the fact that *V-Goal-Theme* structures featuring two lexical DPs are infrequent in naturally occurring speech; it is more common for the animate/Goal argument to be pronominalized, while the inanimate/Theme argument is dropped. We are unaware of subsequent research, i.a. also considering non-experimental data, following up on this matter. For our purposes, the precise details of how late the *V-Goal-Theme* structure is in fact acquired do not matter; what matters is that the feature regulating its availability—[+animate]—is evidently in place early, thanks to its role in structuring the noun-class system (cf. Msaka 2019:chapter 7 for further discussion). As such, the MMM system leads us to expect this feature to be “recycled” and put to use (generalized) to structure other grammatical domains (Feature Generalization).

²⁷ Possibly alongside others we do not consider here, and leave for future work.

²⁸ Although these structures may be late-acquired (see footnote 22), it is important to note that they are not marked in the relevant Bantu systems: where the Goal is animate, the *V-Goal-Theme* structure is obligatory, i.e. completely unmarked.

would expect if the innovative ABP *V-Goal-Theme* structure is underlying a low applicative structure like that in (8) above.

What this first generation of speakers would have found more challenging, however, was the *a*-marking associated with this structure in CIP. As Baxter, Mello and Santana 2014 also observe, the *a*-marking was prosodically weak, i.e. the kind of element that is known to be vulnerable in contact situations. *a* was also, as we have already demonstrated in Section 3.3 above, multifunctional in the context of CIP, see (18).

As it was, additionally, *redundant* in the context of the structure under discussion here, there was even less motivation for the first generation of ABP learners to attend to the *a*-marker: for the first generation of ABP speakers, the *V-Goal-Theme* structure is already cued by distinctive word order, which contrasts with the “regular” *V-Theme-Indirect Object* ordering observed, in both CIP and in prepositionally marked structures in the relevant Bantu L1s. This redundancy consideration, then, led to the introduction of the innovative unmarked *V-Goal-Theme* structure which alternated in a semantically vacuous way with the corresponding *a*-marked structure. Subsequent generations of L1 ABP acquirers may then have regularized the initially optional pattern (another case of Input Generalization leading to a new systematic pattern; cf. Biberauer 2019a for further discussion). In contrast, L1 acquirers of CIP in non-contact situations (e.g. in Portugal) would be expected to exhibit the usual L1 sensitivity to inflectional input, leading to the retention in modern EP of the CIP *a*-marked structures in which *a*-marking is associated with animates (in post-*Theme* position; hence (1)). Interestingly, L1 acquirers of CIP in contact situations (e.g. Brazil) also appear to have been able to acquire the CIP *a*-marked structures (see (2)). Over time, the prosodically weak functional *a* has, however, given way to prosodically strong lexical *para* (see again (2) above and also Torres Morais & Berlinck 2018; Calindro 2020, and the discussion in Sections 1 and 3.3). As demonstrated in (13), *para* also features in EP; in this case, however, its use in ditransitives is restricted to IOs with the theta roles of Beneficiary (*Maria* in (13b) and Location (*para Lisboa* in (13b)).

That is, *para* in EP is restricted to a thematically constrained subset of ditransitive structures. In BP, by contrast, its use has extended to Goal-containing structures like that illustrated in (2) (the same is true for ABP):

In (A)BP, then, the distribution of a strong lexical item (*para*) has been generalized beyond its original thematically defined domain, facilitating reduced use of a prosodically weak, multifunctional element (*a*). From an MMM perspective, this development can be understood as the consequence of Input Generalization: the use of an already-available item (here: *para*) is extended to further contexts in a domain in which it is already available (here: ditransitives; cf. Calindro 2015, 2020 for more detailed discussion, also elaborating on the role of Input Generalization). Importantly, this extended pattern also entails the loss of the [+human] enclitic *-lhe*, which is consistently replaced by structures featuring a strong lexical preposition like *para* and a strong pronoun like *ele* in (2b). EP therefore retains an alternation—between necessarily animate *a*-marked full DP IOs and [+human] enclitic *-lhe*, as illustrated in (13a) above—which is lost in (A)BP. The loss of the clitic form and of the associated [+human]-specific full DP-pronominal alternation pattern may be viewed as a grammatical simplification—fewer micro-patterns need to be acquired.

4.4. The demise of the DOC in ABP and the rise of an articulated PDC system

As argued in the previous section, the \emptyset -marked dative structure (*V-Goal-Theme*) is an innovation in ABP, which seems to have emerged from language contact in the process of Portuguese L2 learning by earlier generations of Afro-Brazilian communities. This structure represents the unmarked option for Goal-containing ditransitives in the Niger-Congo L1 substrate (cf. Baxter Mello & Santana 2014:295), particularly the Bantu component where the Goal dative is not licensed by a preposition.

We argue that the Goal \emptyset -Dat in ABP is in fact a DOC, introduced by a low applicative head (see also Section 4.3). According to Marantz (1993), this head does not have an overt phonological realization, which is the case for DOCs in English. In ABP, the fact that its \emptyset -Dat structures necessarily feature a [+animate] Goal in post-verbal position suggests that these structures are also DOCs, as they are in the relevant Niger-Congo substrate languages. Taking word order into account, Barros (2018) undertakes a statistical analysis, demonstrating that the \emptyset -Dat does indeed occur mainly in the order *V-Goal-Theme* and has a relative weight of 0.840 (input: 0.024). Importantly, all of the Goals in these *V-Goal-Theme* structures are [+human]. Thus, the data from ABP show that the animacy feature is a strong syntactic constraint on word order in dative constructions, similar to what we see in Bantu languages (Hyman & Duranti 1982; Demuth 2003).

In the data collected in the 90s and 2000s in the Afro-Brazilian communities reported on in Section 2, the \emptyset -Dat in DOCs is mostly used by older people. As already mentioned in Section 4.3, the PDC with *para* is also present in ABP, as in modern BP. Consider the following table, taken from Barros (2018):

Table 1. Use of dative constructions in relation to age group

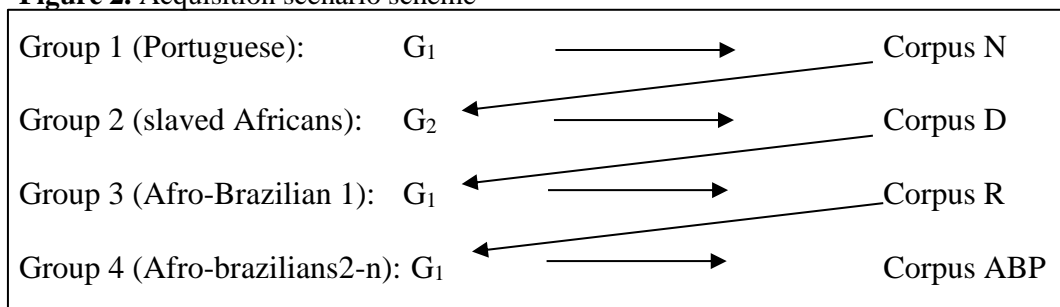
	DOC - \emptyset			PDC - <i>para</i>			PDC - <i>a</i>	
	Application /Total	%	Relative Weight	Application /Total	%	Relative Weight	Application /Total	%
Youths – 20 to 40 years old	9/111	8,1%	0.212	90/111	81,1%	0.697	12/111	10,8%
Adults – 41 to 60 years old	22/86	25,6%	0.577	48/86	55,8%	0.474	16/86	18,6%
Older generation – 61 to 80 years old	22/82	26,8%	0.656	44/82	53,7%	0.376	16/82	19,5%
Oldest generation – over 80 years old	18/35	51,4%	0.869	15/35	42,9%	0.231	2/35	5,7%
INPUT	0.043			0.024				

Source: Adapted from Barros (2018:207)

The table above points to a change in progress in the domain of ditransitive constructions. The DOC is mainly used by the oldest speakers (over 80 years old), and it is much less frequent in the production of the youngest group (20-40 years old).

This pattern can readily be understood if we consider the contact situation in which ABP has developed more recently. As argued in Section 4.3, the \emptyset -Dat DOC initially arose because the first generation of L2 learners was able to relate the functional repertoire already available via their L1 (notably, the low applicative structure and the [+animate] formal feature) to the *V-Goal-Theme* structures in the C1P input. The multifunctional *a*-marking in these structures proved more challenging, however, with the result that it was frequently dropped, giving rise to the earliest attestations of the \emptyset -Dat structure. Subsequent L1 acquirers of ABP then regularized this dropping pattern (Input Generalization), producing a grammatically coherent \emptyset -Dat DOC pattern, “occupying” a core part of the earlier *a*-marked domain, which existed alongside the more widespread PDC patterns. This grammar is best represented by the oldest speakers in Barros’s study, who were born at the beginning of the 20th century when the ABP-speaking communities were still more isolated. As explained in Section 2, however, from the second half of the 20th century on, these communities have become more integrated with BP-speaking communities; hence we might expect the input for the L1 acquisition of younger generations to include data not only from ABP, but also from modern BP. Crucially, modern BP does not exhibit \emptyset -Dat DOC structures, instead, featuring *a*- and, particularly, *para*-marked PDCs in the relevant contexts. As discussed in Section 4.3, there has been a BP preference since the 19th century to use the preposition *para* rather than *a* to introduce indirect arguments. It is therefore reasonable to assume that the input for L1-acquiring ABP speakers would contain both the \emptyset -Dat DOC structures unique to ABP and *a*- and, particularly, *para*-based PDCs, the latter of which are prevalent in both BP and younger generation speakers of ABP. The relevant acquisition scenario can be schematized in Figure 2, taken from Lucchesi and Ribeiro (2009:145), based on Roberts (2007: 390):²⁹

Figure 2. Acquisition scenario scheme



Source: Adapted from Ribeiro (2009:145)

In our case, Group 4 would be the generation whose superstrate language would have been Portuguese varieties developed in other regions.

²⁹ Corpus N = Classical Portuguese; Corpus D = C1P learned as L2 by Africans; Corpus R: variety spoken by the children of African mothers, i.e. the oldest speakers of ABP communities; Corpus ABP: variety spoken by the following generations in Afro-Brazilian communities.

In this context, what would always have been a minority pattern in the ditransitive domain in ABP—also given its specific association, in ABP, with the low-applicative structure which directly relates Goals and Themes (see Section 3.1 above)—therefore has to “compete” with a very generally available PDC structure that will be present in input from both BP and ABP.³⁰ In a sense, the \emptyset -Dat DOC in this kind of multi-variety input becomes more like the optional and not systematically predictable structure of the earliest ABP stage: acquirers exposed to it in their daily interactions will not be able to assign it a categorical formal characterization; as an irregularity to which L1 acquirers are exposed, it is therefore vulnerable to some form of regularization, including elimination (cf. Biberauer 2019a).

5. Final remarks

Crosslinguistically, languages display different strategies to introduce Goal dative complements in the argument structure. In this paper, we have shown that both modern BP, and ABP differ from EP. ABP, in turn, also differs from BP as it presents an innovative structure featuring a \emptyset -Dat argument and a distinctive *V-Goal-Theme* word order. The combination of these morphosyntactic properties, combined with the fact that the postverbal Goal must be animate lead us to argue these structures bear similarities to DOCs in English and Bantu languages.

We argued that the emergence of this peculiar structure in ABP was due to contact-induced L2 learning. Bantu languages acted as the substratum during the colonial period when slaves from various parts of Africa were brought to Brazil and had to learn Portuguese as an L2. Both symmetrical and asymmetrical Bantu languages feature applicative structures that mirror the properties of the innovative ABP ditransitive structures. We therefore hypothesize that these innovative structures arose when the first generation of ABP speakers, whose L1 grammars would have featured the relevant applicative DOC structure, analyzed the marked *V-Goal-Theme* structures in the CIP input as applicatives. This analysis can be understood by appealing to the Maximize Minimal Means model as it allowed these speakers to draw on ‘means’ (here: the [+animate] feature and the low applicative head) already available in their L1 and to “recycle” it in order to make sense of the L2.

At least in ABP, then, the future of the innovative DOC ditransitive is uncertain. Whether this is also the case in Afro-Portuguese varieties spoken in Africa that also appear to have innovated this structure would be worth investigating: given the rather different contact situations, the ABP and Afro-Portuguese DOCs may well be on very different diachronic paths.

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³⁰ Bantu languages, by contrast, very typically feature both high and low applicative structures. DOCs therefore do not constitute a minority pattern in this case.

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