Abstract: While Marantz (1984) was the first to present the idea supporting the assumption that external arguments are not true arguments of their verbs, it was Kratzer (1996) who first developed a theory about how Marantz’s (1984) proposal can be executed in syntax. Kratzer (1996) suggested that external arguments are introduced by Voice, which has VP as its complement. Therefore, in recent studies within the Minimalist Program, Pylkkänen (2008) suggested that vP Cause and VoiceP are two independent projections in the inventory of functional heads. The aim of the present paper is to discuss non-Voice bundling parameter as proposed by Pylkkänen (2008) using data from Nyungwe, a Bantu language spoken by 457,290 people in two Mozambican provinces, namely, Tete and Manica, (SITOE and NGUNGA, 2000; NGUNGA and FAQUIR, 2011). In Nyungwe Voice° and Cause° are two functional heads projected independently.

Keywords: Bantu languages; Minimalist Program; Voice-Bundling Parameter; Voice°; Cause°.

**Palavras-chave**: línguas bantu; Programa Minimalista; Parâmetro de desagregação de Voice; Voice°; Cause.

---

**Introduction**

According to Alexiadou (2014), the term Voice (KRATZER, 1996) is used in three ways: first, denoting particular alternation in a
verb’s argument structure; second, a morpho-syntactic category of the verb and, lastly, as a syntactic head introducing the verb’s external argument. In this study, we are dealing with Voice as syntactic head introducing a verb’s external argument which is separated from Cause.

Taking this, the aim of this paper is to discuss vP functions based on Nyungwe data that support the idea of Non-Voice-Bundling in this language, i.e., the idea that Voice and Cause are phonologically realized in Cinyungwe (N43, according to GUTHRIE’s 1967-71 classification), a Bantu language spoken in Tete and Manica provinces of Mozambique (NGUNGA; FAQUIR, 2011).

Our intuition comes from the existence of causative constructions that do not involve an external causer argument: causative-reflexive constructions, causative-passive constructions and causative-stative constructions, indicating the existence of causing event constructions without relating any participant to it. The use of these constructions comes from the assumption that the reflexive, passive and stative morphemes are syntactic core of the Middle Voice in Bantu languages (DOM; KULIKOV; BOSTOEN, 2017; SEIDL; DIMITRIADIS, 2003). However, in this study we are going to discuss about causative-reflexive constructions.

Marantz (1984) was the first to present the idea supporting the assumption that external arguments are not true arguments of their verbs. He observed that a particular kind of internal arguments triggers special interpretation of the verb, what cannot be said about the verb and the external argument. Below are presented some of the examples used by the author for his assumption (MARANTZ, 1984, p. 49):

1a) throw a baseball
   b) throw support behind a candidate
   c) throw a boxing match (i.e., take a dive)
2a) kill a conversation
   b) killing an evening watching TV
   c) kill an audience (i.e., wow them)

According to Marantz (1984) the examples above call our attention to a distinction between the basic uses of the verbs presented from in (1a-c) and (2a-c) from their metaphoric and idiomatic uses, yet no clear lines divide the classes. In the explanation of these examples,
Marantz (1984) also argues that, the sentences above are only possible if objects are arguments directly selected by the verb and with their thematic role attributed by them, the same cannot be said in relation to the subjects, since they do not have the same status. They are additional arguments, though required in many syntactic environments. As we can see Marantz (1984) separated from the same level the VP and its internal argument from the subject. Marantz gave the idea of separating the external argument from the verb and its argument, but did not say how external argument was introduced in syntax. From the study of Marantz (1984), several theoretical and empirical proposals followed. One of them belongs to Kratzer (1996) who, through the neo-Davidsonian approach states that “…the external argument of a verb is not an argument of the verb…” (KRATZER, 1996, p. 112).

Kratzer (1996) developed a theory proposing that external arguments are introduced by Voice, which has VP as its complement. Thus, it is above the VP. The external argument is generated as a Voice specifier. Kratzer (1996) shows that Voice is only a functional head denoting a relation between the external argument and the event described by the verb.

Now, the assumption that an external argument is not a true argument of the verb has become standard in all current work within Minimalist Program and assumed by many scholars (ALEXIADOU; ANAGNOSTOPOULOU; SCHÄFER, 2006; MARANTZ, 2005; ALEXIADOU, 2014).

The aim of the present paper is to present examples that support the idea of Non-Voice-Bundling in Nyungwe, i.e., the idea that Voice and Cause can be phonologically realized in this language. For that, the paper is organized in four sections as follows. After this introductory section, we move into the second section where we discuss Pylkkänen (2002, 2008) theoretical proposal. Then, in the third section, we describe and discuss what happens in Nyungwe and, lastly, in section four, we present the conclusions.

1 Non-Voice Bundling proposal (PYLKKÄNEN, 2002, 2008)

Pylkkänen (2002, 2008) proposed non-voice bundling hypothesis as she was discussing cross linguistic variation in causative constructions. According to the author, it is not always that
causativization increases the number of verbal arguments and, therefore, introduction of a new syntactic argument is not a core property of causativization. Thus, what distinguishes causative verbs from their noncausative counterparts is a syntactically implicit event argument. It means that all causative constructions involve a Cause head, which combined with noncausative predicates, introduces a causing event to their semantics. Therefore, crosslinguistic variation in causative constructions has two sources: Voice bundling and cause selection. Voice bundling refers to the syntactic variation in the realization of cause. According to Pylkkänen (2002, 2008), Voiceº and Cause can be phonologically realized by two different functional heads, meaning that vP can be divided into two independent projections: VoiceP and vPCause. Pylkkänen (2002, 2008) argues that Finnish and Japanese have causative heads that are independent of Voice, as can be seen in the diagram below:

```
(i)      VoiceP
         w p
     Spec                        Voice'
         w p
         Voice             vPCause
         w p
         Cause      VP
         w y
```

As we can see in the diagram above, VoiceP is projected independently from vPCause. Using this structure we are assuming that both Voiceº and Cause can be phonologically realized. To test that these two languages are non-voice bundling, Pylkkänen (2002, 2008) uses causative constructions that lack an external argument, the causer, to prove that Voice and Cause can be phonologically realized. These constructions are adversity causatives. Let’s see the Japanese examples presented below:
   Taro-NOM son-ACC die-CAUS-PAST
   (i) ‘Taro caused his son to die.’
   (ii) ‘Taro’s son died on him.’ (adversity causative)

According to the author, the causative construction presented above has adversity interpretation because the NP *Taroo-ga* is interpreted as an external argument in (i) and as an affected argument in (ii). Moreover, the interpretation in (ii) calls our attention to the fact that although the construction displays causative morpheme, it does not have causative meaning. The adversity causative asserts the existence of a causing event without relating any participant to it. Although, adversity causative has a causing event in it meaning the nominative argument, in these constructions, it is not an external argument and it does not have implicit external argument (it is not a passive).

Pylkänen (2002, 2008) uses passive construction presented in (4) to show that if the nominative argument in the adversity causative is a derived subject, passivization should make the adversity causative reading disappear.

4. *musuko-o sin-ase-rare-ta.*
   son-ACC die-CAUS-PASS-PAST
   (i) “The son was caused to die.”
   (ii) * ‘Somebody’s son died on them’ (implicit affected argument)

According to Pylkänen (2002, 2008), the example presented above shows the existence of adversity causative. Although it lacks an external argument, it has a causative meaning. It means that, the adversity causative has a causative head that introduces the caused event, but not an external argument.

Pylkänen (2002, 2008) gives a clearest way to show that in Japanese, we have a causative that does not introduce an external argument by contrasting it with the adversity passive. See the example (5), below:
Japanese (PYLKÄNEN, 2008, p. 90)
5a) *Taro-ga musuko-nio sin-are-ta.
    Taro-NOM son-DAT die-PASS-PAST
    ‘Taro’s son died on him.’

The adversity passive construction presented in (5) has similar meaning to the one of adversity causative in (4), but lacks the causative morphology. We have the same meaning but its morphological spell-out is different. Pylkkänen (2002, 2008) argues that the semantic similarity between the adversity causative and adversity passive is only superficial. In these two constructions, only the adversity causative has in fact causative meaning. The semantic difference between these constructions can be seen if the adversity causative is combined with \textit{ni-yotte} (by-phrase). We present below two examples used by Pylkkänen (2008, p. 91).

Adversity causative+ by-phrase naming a causing event
6a) *Taro-ga sensoo-ni-yotte musuko-o sin-ase-ta.
    Taro-NOM war-by son-ACC die-CAUS-PAST
    ‘Taro’s son was caused to die on him by the war.’

Adversity passive+ by-phrase naming a causing event
b)* Taro-ga sensoo-ni-yotte musuko-o sin-ase-ta.
    Taro-NOM war-by son-ACC die-CAUS-PAST
    ‘Taro’s son died on him by the war.’

According to Pylkkänen (2002, 2008), the ungrammaticality of (6b) shows that only adversity causative can combine with \textit{ni-yotte} (by-phrase), a modifier that can be used to specify an implicit argument. Thus, if a structure does not have an implicit argument, by-phrase should be impossible, as what happens in (6b). Moreover, these examples tell us that adversity causative has an implicit event, which is absent in adversity passive, and this implicit argument is not an agent.

Following Pylkkänen (2000, 2002, 2008) and Harley (2013), in this study we propose that in Nyungwe Voice and Cause are two
separated functional heads. Our intuition comes from the existence of causative constructions that do not involve an external causer argument.

As we look at Nyungwe, we intend to answer Legate’s (2014, p. 111) question “…why is there little morphological attestation of the distinct Voice vs. \( v^\circ \) heads crosslinguistically…”

2 Non-Voice Bundling in Nyungwe

In the previous section, we gave a theoretical assumption that will be used to analyze our data. The present section aims at discussing data that made us suggest that in Nyungwe there are constructions where a causative head introduces a causing event, but not an external causer argument. We are talking about causative-reflexive verbs.

2.1 Causatives without an external causer argument

In this section, we present causative constructions lacking aprototypical causative external argument, a causer.

2.1.1 Reflexive Constructions

As we will see, in reflexive causative constructions in Nyungwe, Voice and Cause are two different functional heads realized by two different morphemes: the reflexive (-bzi-), as a realization of Voice\(^\circ\) and the causative morpheme (-is-), as the realization of caus\(^\circ\). The co-occurrence of reflexive and causative morphemes in Nyungwe brings data which are quite different from what was found in Kerewe, where the co-occurrence of these two morphemes bring an idiosyncratic meaning ‘pretend to’, and Lusaamia, where the co-occurrence of these morphemes brings the semantics of ‘for no reason’ and in some cases without consistent semantic difference (MARLO, 2015, p. 10-11). In addition, in Lusaamia, reflexive morphemes are used in indirect reflexive constructions as middle voice/stative marker (GRIMES, 2002; MARLO, 2015).

Our analysis proposes another alternative treatment of the reflexive morpheme that is quite different from what is proposed in the literature: detransitivising affix, like other set of valence-altering verbal affixes (MATSINHE, 1994) or an object marker because of its position.
immediately to the left of the verb root is canonically the position for object markers (STOROSHENKO, 2009). However, quite similar to the one proposed by Alexiadou (2014, p. 19), “…middle Voice is the non-active counterpart of Kratzer’s active Voice and gives rise to reflexives, passives and dispositional middles in Greek type languages…” and one of the strategies for middle Voice marking across Bantu languages (DOM; KULIKOV; BOSTOEN, 2017).

The discussion begins with reflexive transitive verbs. As we know, undereived transitive verb has two arguments, an external and an internal argument. However, when the reflexive and causative morphemes co-occur, we get a reflexive-causative verb that has a causing event without relating it to any prototypical external argument. Let’s see the examples in (7) and (8), below:

7a) mamuna a-da-sirir-a n’-kazi.
1-man 1-TM-like-FV 1-woman
‘the man liked the woman’
b) mamuna a-da-sirir-is-a n’-kazi.
1-man 1-TM-like-Caus-FV 1-wom
‘the man made (someone) to like the woman’
c) n’kazi a-da-bzi-sirir-is-a.
1-woman 1-TM-Refl-like-Caus-FV
‘the woman made herself likable’

8a) ntsikana a-ph-a n-tshwaya.
1-girl 1.TM-kill-FV 9-louse
‘the girl killed the louse’
b) ntsikana a-ph-es-a n-tshwaya.
1-girl 1.TM-kill-Caus-FV 9-louse
‘the girl made (someone) to kill the louse’
c) ntsikana a-bzi-ph-es-a.
1-ntsikana 1.TM-Refl-kill-Caus-VF
‘the girl made herself to be killed’

The examples above illustrate that each verb, -sirir-‘to like’ (7) and -ph- ‘kill’ (8), has two arguments: the external argument mamuna ‘man’ (7a) and ntsikana ‘girl’ in (8a). These verbs also have an internal argument: n’kazi ‘woman’ in (7a) and ntsikaya ‘louse’ in (8a). In (7b) and (8b) it is shown that because of the attachment of the causative
morpheme, the external arguments in (7a) and (8a) become a cause and a causing event is increased.

In (7c) and (8c), different from what we have seen in (7a, b) and (8a, b), the nominative argument becomes an affected argument. This means that although the construction in (7c) and (8c) displays causative morpheme, the NPs n’kazi ‘woman’ and ntsikana ‘girl’ must not be interpreted as an agent of the causing event but as an affected argument of the caused event. Thus, we have a causing event without relating any participant to it. Using the examples (7c) and (8c), we argue that -bzi- is the phonological realization of Voice° and -is- is the phonological realization of cause°.

In the next examples, we present evidence to prove that the nominative arguments in (7c) and (8c) if we increase by-phrase naming an implicit agent, they still interpreted as affected arguments and not as a causer. See the examples that follow:

Reflexive-causative+ na-naming an implicit agent
9. n’kazi a-da-bzi-sirir-is-a. na mamuna
1-woman 1-TM-Refl-like-Caus-FVby the man ‘the woman and the man made themselves likable’

Reflexive-causative+ na-naming an implicit agent
10. ntsikana a-bzi-ph-es-a na ntsuwaya.
1-ntsikana 1.TM-Refl-matar-VF by the louse ‘the girl and the louse made themselves to kill themselves’

The Nyungwe data lead us to the conclusion that reflexive-causative constructions involve a causative head introducing only a causing event, but not an external causer argument, as na-phrase does not specify an implicit agent, it turns an affected argument instead.

Now, we turn our attention to reflexive-causative-unaccusative verbs. As it is well known, unaccusative verb is an intransitive verb without an external argument. In the examples (11a) and (12a) we can see that:
11a) mwana w-a-gw-a
1-child 1.TM-fall-FV
‘the child fell’
b) Maria w-a-gw-es-a mwana.
   Maria 1.TM-fall-Caus-FV 1-child
   ‘Maria made the child fall.’
c) Maria w-a-bzi-gw-es-a
   Maria 1-TM-Refl-fall-Caus-FV
   ‘Maria made herself fall.’

12a) mwana a-ndza-gak-a
1-child 1-TM-burn-FV
‘the child will burn’
b) nyansalaa-ndza-gak-is-a mwana.
   1-mad person 1-TM-burn-Caus-FV 1-criança
   ‘the mad person will make the child burn.’
c) mwana a-ndza-bzi-gak-is-a
   1-child 1-TM-Refl-burn-Caus-FV
   ‘the child will make herself be burnt’

As we can see in the examples (11b) and (12b), unaccusative causatives are possible in Nyungwe and a new external argument is added. In cases like these, we shall have a structure presented below:
(ii) VoiceP
   wp
Spec   Voice’
Maria  wp
   Voice°  AgrsP
   \ø
   Agr°  wp
   TP
   wagwesja  wy
   T°  CausP
   j  ry
   Spec  Caus’
mwana  wy

Caus°  SV
   \i  wy
V’
V
V°
\i

In the diagram above we can see that in the Spec of VoiceP we have an agentive external argument without phonological realization and the CauseP introducing a causing event.

However, in cases like the reflexive-causative verbs in (11c) and (12c) a causative head is involved introducing only a causing event, but not an external argument. Therefore, there is no Voice head relating a participant to the causing event. Below we present a structure for constructions like this:
In the diagram (iii), we have a partial structure of the example (11c), with a VoiceP head above the CauseP head, as it does not have an external causer argument because the nominative argument in (11c) is not an external causer argument. In this structure the projection of the VoiceP is intend to account for the realization of Voice° (-bzi-). Above the VoiceP we have another two functional heads: TP and AgrsP. We propose this to account for the realization of Voice and Cause in constructions lacking an agent argument, such as reflexive-causative constructions.

We know that this structure can rise a discussion concerning the principle A of the Binding Theory but intentionally we leave this discussion for another coming paper. The reason for our decision is because as Ibara (s/d) pointed out, some principles of the Binding Theory, namely Principle A, can not explain the distribution of reflexive
constructions because they can occur outside their domain category and accessible NP.

From now, we go further proposing that in Nyungwe, it is also possible to causativize an unergative verb without introducing a new argument in syntax. In the causative verb, the reflexive morpheme (-bzi-) must be attached, just like what we saw in (12c). Consider the examples presented below:

13a) mayi a-da-mog-a.
   1-mother  1-TM-jump-FV
   ‘the mother jumped’

b) Maria a-da-mog-es-a mayi.
   Maria  1.TM-jump-Caus-FV  1-mother
   ‘Maria made the mother jump’

c) mayi a-da-bzi-mog-es-a.
   1-mother 1-TM-Refl-jump-Caus-FV
   ‘mum made herself jump.’

14a) mbwaya yi-ndza-thamang-a.
   9-dog  9-TM-run-FV
   ‘the dog shall run.’

b) mbuzi yi-ndza-thamang-is-a mbwaya.
   1-goat 1-TM-run-Caus-FV 9-dog
   ‘the goat shall make the dog run.’

c) mbwaya yi-ndza-bzi-thamang-is-a.
   9-dog 9-TM-Refl-run-Caus-FV
   ‘the dog shall make herself run’

The data in (13) and (14) illustrate that though -mog- ‘jump’ and -thamang- ‘run’ are unergative verbs, in reflexive-causative constructions we do not have a causer as their external argument just like what we saw in the examples related to transitive and unaccusative verbs. The NPs mayi ‘mother’ and mbwaya ‘dog’ are affected arguments. Thus, taking into account this, we assume that -bzi- is a phonological realization of the Voice head in Nyungwe causative-reflexive constructions.

In this study using causative-reflexive constructions we suggested that Voice and Cause are two separated functional heads in Nyungwe. In the next section, we present the conclusions.
Conclusions of the study

The aim of the study was to discuss non-Voice bundling parameter as proposed by Pylkkänen (2008) using data from Nyungwe, a Bantu language spoken by 457,290 people in two Mozambican provinces, namely, Tete and Manica, (SITOE; NGUNGA, 2000; NGUNGA; FAQUIR, 2011).

In the study, using reflexive-causative constructions, we proposed that reflexive morpheme must be treated as the realization of Voice. Because, in descriptive terms, in these constructions we have a causative head but not a VoiceP head. Therefore, in Nyungwe it is possible to have a causative construction without an external causer argument.

Proposing that reflexive morpheme is the realization of Voice°, we give another alternative treatment of the reflexive morpheme that is quite different from what is proposed in the literature: detransitivising affix (MATSINHE, 1994) or an object marker (STOROSHENKO, 2009).

References


Recebido em: 21/02/2018
Aceito em: 30/05/2018