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# Partitive and Counting Phrases in Polish: A Nanosyntactic Analysis of Syncretism

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**Abstract**

This paper investigates syncretism in Polish pseudo-partitive and counting phrases, where different forms of the same noun appear in context as 'a piece of apple', 'two apples', and 'five apples'. These contexts exhibit three distinct syncretism patterns: AAB, ABC, and ABA, depending on whether suffixes are repeated or differ across forms. The analysis focuses on how suffixes signal distinctions in number and countability, drawing on the nanosyntactic framework. By applying the Lexicalization Algorithm, the paper shows how noun structures grow incrementally and how suffixes compete for lexicalization. Special attention is paid to the ABA pattern in feminine nouns, where the same suffix appears in the genitive singular and genitive plural, but not in the nominative plural – a configuration rarely attested cross-linguistically. The findings provide evidence for fine-grained syntactic structure and illustrate how syncretism patterns reflect the underlying functional sequence.

**Keywords:** pseudo-partitives; counting; nanosyntax; syncretism; *ABA

## 1. Introduction

This paper examines syncretism in Polish pseudo-partitive and counting phrases, focusing on the structure of noun forms in each pattern. As shown by Falco and Zamparelli (2019), pseudo-partitive phrases denote subsets (e.g., *a piece of an apple*). Counting phrases, by contrast, pair numerals with the nouns they quantify (Bultnick 2005), e.g., *two apples*. In Polish, the case and number form of the noun depends on the associated numeral (Franks 1994): low numerals (2, 3, 4) require the nominative plural, forming *low-counting phrases*, while high numerals (5 and above) require the genitive plural, forming *high-counting phrases*. Alongside these, pseudo-partitives appear in the genitive singular and express part–whole relations. These three contexts exhibit a non-trivial syncretism that forms the core empirical puzzle addressed in this paper.

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Two patterns from Polish are illustrated below. The first one, AAB in (1), shows syncretism between the first two phrases, while the second pattern, ABC in (2), shows no syncretism at all:[1]

(1) AAB (Native speaker)

| | | |
|---|---|---|
| a. | kawałek | **jabłk-a** |
| | a.piece.NOM | apple.N-GEN.SG |
| | 'a piece of apple' | |
| b. | dwa | **jabłk-a** |
| | 2.NOM.N | apple.N-NOM.PL |
| | 'two apples' | |
| c. | pięć | **jabłek-ø** |
| | 5.NOM | apple.N-GEN.PL |
| | 'five apples' | |

(2) ABC (Native speaker)

| | | |
|---|---|---|
| a. | kawałek | **ziemniak-a** |
| | a.piece.NOM | potato.M-GEN.SG |
| | 'a piece of potato' | |
| b. | dwa | **ziemniak-i** |
| | 2.NOM.M | potato.M-NOM.PL |
| | 'two potatoes' | |
| c. | pięć | **ziemniak-ów** |
| | 5.NOM | potato.M-GEN.PL |
| | 'five potatoes' | |

In (1), syncretism occurs between the pseudo-partitive, (1-a), and low-counting phrases, (1-b), marked by the shared suffix *-a* for GEN.SG and NOM.PL. However, the high-counting phrase, (1-c), lacks an overt marker (marked as *-ø*).

(2) shows no syncretism between pseudo-partitive, low-, and high-counting phrases. Yet, the suffix *-a* appears in both pseudo-partitive phrases, (1-a) and (2-a). This is summarised below, (3):

(3) Patterns

| | **Pseudo-partitive** | **Counting** | |
|---|---|---|---|
| | | **LOW** | **HIGH** |
| **AAB** | jabłk-a | jabłk-a | jabłek-ø |
| **ABC** | ziemniak-a | ziemniak-i | ziemniak-ów |

Suffixes in pseudo-partitive and low-counting phrases often correspond, particularly when these two phrase types are adjacent in the morphological paradigm. The occurrence of syncretism between non-adjacent members (pseudo-partitive and high-counting phrases) is rare. This relationship would lead to the ABA pattern, which has garnered attention in linguistic theory due to its implications for the structure of morphosyntactic hierarchies. Bobaljik (2012) and Caha (2009) have suggested that ABA patterns are rare or unattested (thus also *ABA) in domains, such as case syncretism and adjective comparison.

Although *ABA patterns seem to be rare, they do occur within languages. For instance, Polish is a language, where a systematic *ABA occurs, (4):

[1] The list of the used abbreviations is as follows: CL = classifier, F/FEM = feminine, GEN = genitive, GEND = general gender / neuter, M/MASC = masculine, MASS = mass feature, NP = noun phrase, NOM = nominative, N = neuter, PAUC = paucal, PL = plural, quant = quantificational element, SG = singular

(4) ABA (Native speaker)

a. kawałek **pomarańcz-y**
a.piece.NOM orange.F-GEN.SG
'a piece of orange'

b. dwie **pomarańcz-e**
2.NOM.F orange.F-NOM.PL
'two oranges'

c. pięć **pomarańcz-y**
5.NOM orange.F-GEN.PL
'five oranges'

*Pomarańcza* 'orange' is feminine, and it takes the GEN.SG suffix *-y* in pseudo-partitive phrases. In low-counting phrases, the NOM.PL suffix *-e* appears. Finally, in high-counting phrases, the *-y* suffix reappears, now indicating GEN.PL. The consistent application of this pattern across the entire declension type (Bielec 1998) leads to classify it as a systematic instance of *ABA.

(5) summarises the data from (1), (2), and (4):

(5) Patterns

| | PSEUDO-PARTITIVE | COUNTING | | PATTERN |
|---|---|---|---|---|
| | | LOW | HIGH | |
| **jabłk** | -a | -a | -ø | AAB |
| **ziemniak** | -a | -i | -ów | ABC |
| **pomarańcz** | -y | -e | -y | ABA |

The noun in pseudo-partitive phrases, as in (1-a) and (2-a), represents a minimal subset lacking the atomic layer, making it mass-like (Borer 2005; Rothstein 2010).

In low-counting phrases, (1-b) and (2-b), nouns must contain an atomic layer that allows them to be counted. This behaviour is similar to classifier languages, where a classifier is added when a noun is enumerated (Allan 1977).

The patterns in (5) suggest that the triplet pseudo-partitive < low-counting < high-counting can yield an ABA configuration when ordered like this. This order, however, is not the only logically possible one. Alternative orderings, such as low-counting < pseudo-partitive < high-counting or high-counting < pseudo-partitive < low-counting, would avoid the ABA pattern. These would place the pseudo-partitive form between the low-counting and high-counting one. Yet, while these alternatives are morphologically coherent, they do not reflect the structural containment that underlies the functional sequence adopted here. In this sequence, pseudo-partitive phrases are structurally the smallest, low-counting phrases add countability, and high-counting phrases introduce additional quantificational structure. For this reason, I maintain the ordering pseudo-partitive < low-counting < high-counting as syntactically motivated, despite the morphological alternatives.

The suffix *-a* seen in (5) occurs in the AAB pattern and in pseudo-partitive phrases within both the AAB and ABC patterns. In contrast, it is absent in the ABA pattern, where the suffix *-y* appears instead. In low-counting phrases, three suffixes are observed. In high-counting phrases, on the other hand, the suffixes *-ów* (ABC) and *-y* (ABA) are used, while the noun in AAB lacks an overt suffix.

High-counting phrases, (1-c) and (2-c), add a layer of structural complexity. These phrases satisfy the needs of high numerals often involving distributive or cumulative interpretations (Krifka 1992; Rothstein 2017).

The paper focuses on the distribution of the three patterns, the structure of the nouns within each pattern, and the structure of each pattern compared to each other. To address these questions, I adopt the framework of Nanosyntax, a theory that unifies morphology and syntax by using abstract, hierarchically ordered features (Caha et al. 2023; Starke 2009).

The structure of the paper is as follows: Section 2 introduces the background on the Nanosyntax approach and features used in the analysis. Section 3 applies the Lexicalisation Algorithm to elucidate the structures and distribution of syncretism patterns. Section 4 concludes.

## 2. Nanosyntax and number

Nanosyntax extends the cartographic approach by exploring the smallest components of syntactic structure. It follows the "one feature – one head" principle, where each syntactic head corresponds to a single semantic feature (Cinque & Rizzi 2008; Kayne 2005).

A key innovation is phrasal lexicalization, which links entire syntactic configurations directly to morphemes in the lexicon (Caha 2009; Starke 2009). Central to Nanosyntax is the functional sequence (fseq), a universal hierarchy of syntactic features forming their own syntactic head (Starke 2009).

This section uses Nanosyntax to examine Polish pseudo-partitive and counting phrases. The features MASS, CL, PAUC, and QUANT define key distinctions in noun phrase structure and align with specific layers of the fseq, (6).

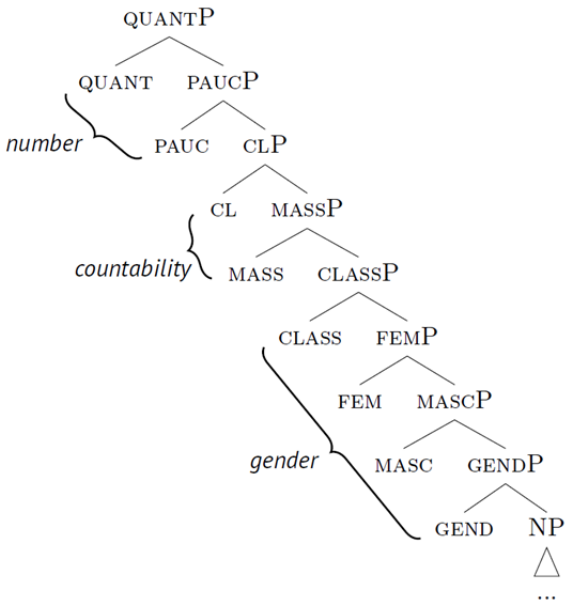
At the base lies the NP. The triangle marks the presence of lower features, which I do not use for explaining the syncretism patterns.

Above NP, there are features representing grammatical gender: GEND, MASC, and FEM. GEND acts as a general gender or as a marker for neuters. MASC and FEM specifically denote the masculines and feminines, respectively.[2]

Above the gender, there is CLASS following Janků and Starke (2019) as well as Janků's dissertation (2022). It is split there into two separate features, CL1 and CL2. According to Janků (2022), these features, observed in Romance and Czech (and potentially other Slavic languages), may be related either to gender below or to number above. In my research, I treat these features as a single entity, referred to as CLASS, for a straightforward reason: keeping them unified simplifies the structures. The distinct markings arise from the use of a classifier within my functional sequence, abbreviated as CL. As there are features above CLASS, and number features, the CLASS feature seems to belong among gender features, as Janků and Starke predict.

[2] The hierarchical arrangement of gender features — GEND < MASC < FEM — is supported by the findings of Jakobson (1984) or Corbett (1991). They contend that feminine forms are more marked than masculine forms, necessitating a more intricate internal structure. Additionally, the neuter gender is seen as the least marked, lending credibility to the sequence GEND < MASC < FEM.

(6) Functional sequence




The features above CLASS are used to distinguish pseudo-partitive, low-counting and high-counting phrases. Above CLASS, there are two features – MASS, and CL – distinguishing countability. The MASS feature suggests that nouns in pseudo-partitive constructions are structurally minimal, appearing as mass nouns (Borer 2005). This concept is further reinforced by Rothstein (2010), who highlights the reliance of pseudo-partitive constructions on the mass/count distinction. To address this, Caha (2022) proposes CL(ASSIFIER), which enables the conversion of mass-like nouns into countable forms. However, as illustrated in (7), CL(ASSIFIER) alone fails to account for the patterns observed in both low- and high-counting phrases.

While Borer (2005) proposes a separate projection DIV to derive count nouns from mass nouns, this paper does not include DIV as an independent functional head. Instead, the CL projection is assumed to fulfil the relevant structural role of marking countability. This choice aligns with the broader insight adopted from Borer – namely, that countability is structurally derived – but diverges from her implementation by replacing DIV with a more fine-grained sequence of projections. As discussed in Žoha (2025a), Czech (and Polish) numerals such as 2–4 versus 5+ require additional structure beyond the mass/count contrast, which CL can accommodate without the need for a distinct DIV head.

(7) Applying MASS and CL

| | PSEUDO-PARTITIVE | COUNTING | | PATTERN |
|---|---|---|---|---|
| | | LOW | HIGH | |
| **jabłk** | -a | -a | -ø | AAB |
| **ziemniak** | -a | -i | -ów | ABC |
| **pomarańcz** | -y | -e | -y | ABA |
| | [MASS] | [MASS] [CL] | [MASS] [CL] | |

Exponents at lower cycles can be overwritten by other lexicalisations at higher cycles. Thus, the low- and high-counting phrases contain MASS, which is overwritten by CL. However, CL

alone does not differentiate the phrases. Notably, each phrase exhibits distinct number forms. At first glance, pseudo-partitive phrases appear with the noun in the singular, while in both low- and high-counting phrases, the noun occurs in the plural. However, why do counting phrases exhibit two distinct sets of suffixes?

This can be explained by introducing an additional grammatical number: the paucal, an approximate number covering small amounts, which is employed with low numerals instead of the plural (Corbett 1993; Harbour 2014; Nesset 2019). Incorporating the paucal helps explain the existence of two sets of suffixes observed in counting phrases. In low-counting phrases, the paucal, PAUC(AL), is employed, while in high-counting phrases, the plural, QUANT(ITY), replaces it. This distinction has been noted in works such as Franks (1995) and Pesetsky (2013). (8) illustrates these observations:

(8) Applying MASS, CL, PAUC and QUANT

| | PSEUDO-PARTITIVE | COUNTING | | PATTERN |
|---|---|---|---|---|
| | | LOW | HIGH | |
| **jabłk** | -a | -a | -ø | AAB |
| **ziemniak** | -a | -i | -ów | ABC |
| **pomarańcz** | -y | -e | -y | ABA |
| | [MASS] | [MASS] [CL] [PAUC] | [MASS] [CL] [PAUC] [QUANT] | |

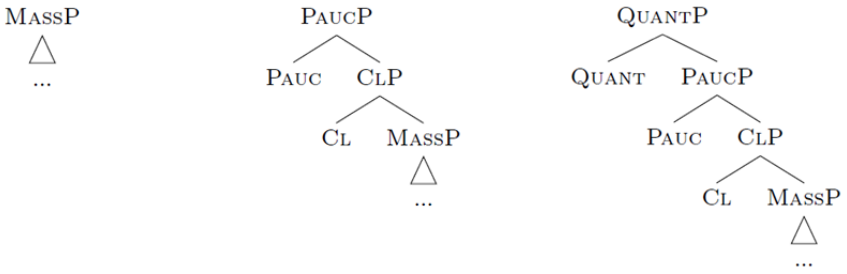
Several observations can be made from the table. First, the suffix *-a* must include MASS, CL, and PAUC, as it is used in low-counting phrases. However, its structure must prevent it from attaching to the noun *ziemniak* in the low-counting phrase. The next issue is observed within the AAB pattern. In high-counting phrases, no overt suffix appears, meaning the root itself must accommodate all features up to QUANT. Another point concerns the ABA pattern. The suffix *-y* must appear with only MASS in pseudo-partitive phrases, but in high-counting phrases, it needs to include all features from MASS to QUANT.

Finally, there is the issue regarding the singular number. The fseq in (6) includes PAUC and QUANT to represent grammatical number. The missing number is the singular. It is evident that the singular must be placed below the paucal, as the default number for counting. The question is whether the singular is a unique feature, SG, or if it is already projected along with the classifier, CL. I will leave this question open, as it is beyond the scope of this paper.

To conclude, consider (9), where simplified nouns' structure in each phrase can be found. (9-a) shows pseudo-partitive phrases going only up to MASS, in (9-b) low-counting phrases up to PAUC, and in (9-c) the most complex structure of high-counting phrases up to QUANT.[3]

[3] Although case features may also play a role in suffix distribution, this study concentrates on number and gender, with the role of case left for future investigation.

(9) a. Pseudo-partitive b. Low-counting c. High-counting




In the following sections, I will analyze each pattern in detail, employing Nanosyntax to clarify the structure of each, with a particular focus on MASS, CL, PAUC, and QUANT.

## 3. Structure of the patterns

This section examines the structure of the three syncretism patterns identified: AAB, ABC, and ABA. The analysis focuses on the features MASS, CL, PAUC, and QUANT. At the core of this hierarchy is MASS, which derives a mass noun from the root. The addition of CL enables the noun to be countable, while PAUC and QUANT differentiate between low- and high-counting phrases, respectively. These features are crucial for understanding the structural differences among examined phrases.

To formalize the derivations, the Lexicalization Algorithm (Caha et al. 2023) is employed. This Algorithm merges features, testing whether the resulting structures are identical to the ones of the used morphemes or if further "rescue operations" are needed to ensure compatibility.

Each subsection is dedicated to one of the syncretism patterns, offering an explanation of the specific pattern, syntactic structures corresponding to the morphemes involved, and step-by-step derivations illustrating the feature-merging and lexicalization processes.

The examined patterns consist of the features from functional sequence repeated in (10):

(10) Functional sequence
NP < GEND < MASC < FEM < CLASS < MASS < CL < PAUC < QUANT

The table below, (11), shows the formal structure of each used pattern. The table is divided into lexical entries for roots (top) and suffixes (bottom), with features marked as part of each morpheme's lexicalization. To aid readability, suffixes are listed separately, but in later tables (e.g., (13)), roots and suffixes are combined explicitly.

(11) Structure

| NP | GEND | MASC | FEM | CLASS | MASS | CL | PAUC | QUANT | PATTERN |
|---|---|---|---|---|---|---|---|---|---|
| **pomarańcz** | | | | | | | | | ABA |
| **ziemniak** | | | | | | | | | ABC |
| **jabłk** | | | | | | | | | AAB |
| | | | | | | | -a | | |
| | | | | | | | -e | | |
| | | | | | | | | -y | |
| | | | | | | | | -ów | |
| | | | | | | | -i | | |

While the suffixes in (1), (2), and (4) clearly express case (e.g., GEN.SG, NOM.PL), this paper focuses on number and gender features only. Case is assumed to be a higher layer in the functional sequence, projected above QUANT (e.g., Caha 2022). As such, it is not explicitly included in the lexicalization tables, which concentrate on sub-case features. A full account of case–number interactions would allow for a more precise treatment of this issue but lies beyond the present scope.

As shown in the first part of the table, the noun *pomarańcz* 'orange' contains all features up to CLASS, like the noun *ziemniak* 'potato', except that the absence of FEM (indicated in black) marks *ziemniak* as masculine. The bare root *jabłk* 'apple' includes all features (except MASC and FEM) and appears in high-count phrases.

These three nouns can co-occur with five distinct suffixes. The suffix *-a* appears in pseudo-partitive and low-counting phrases within the AAB and ABC patterns, encompassing features from CLASS to PAUC. Similarly, the suffix *-i* in low-counting phrases of the ABC pattern spans MASC to PAUC, while *-e* in the ABA pattern spans FEM to PAUC. The remaining suffixes, *-ów* and *-y*, terminate in QUANT, as they occur in high-count phrases. The suffix *-y* is feminine, beginning at FEM, whereas *-ów* is masculine and begins at MASC, bypassing FEM.

The following subsections delve into the precise structural composition of each noun and suffix, detailing their respective derivations. Specifically, they explain the processes by which these nouns and suffixes are formed.

### *3.1. AAB*

In this section, I focus on the AAB pattern: how to derive the noun *jabłk* 'apple' and the suffix *-a* occurring in the pseudo-partitive and low-counting phrases, and how to ensure that the suffix disappears in the high-counting phrase.

The relevant data for this section from (1) are repeated as (12):

(12) AAB (Native speaker)

| | | |
|---|---|---|
| a. | kawałek | **jabłk-a** |
| | a.piece.NOM | apple.N-GEN.SG |
| | 'a piece of apple' | |
| b. | dwa | **jabłk-a** |
| | 2.NOM.N | apple.N-NOM.PL |
| | 'two apples' | |
| c. | pięć | **jabłek-ø** |
| | 5.NOM | apple.N-GEN.PL |
| | 'five apples' | |

As seen from the data in (12), both a root and a suffix must be dealt with. The structure of both – the noun *jabłk* 'apple' and the suffix *-a* – is detailed below, (13):

(13) Lexicalization table

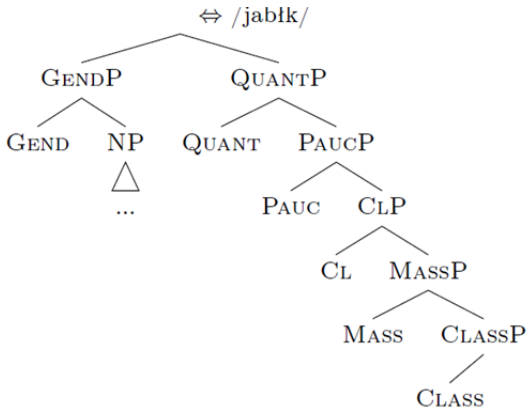
| NP | GEND | MASC | FEM | CLASS | MASS | CL | PAUC | QUANT | |
|---|---|---|---|---|---|---|---|---|---|
| **jabłk** | | | | | | | | | 'apple' |
| | | | | | -a | | | | P-PART |
| | | | | | | | -a | | LOW |
| | | | | | | | | | HIGH |

The lexicalization table shows the interaction of morphological features in deriving the forms of *jabłk* 'apple' in the context of pseudo-partitive, low-, and high-counting phrases. The light grey cells represent the root *jabłk*, containing all the necessary features for high-counting phrases. The composition of the suffix *-a* in darker grey is included in pseudo-partitive and low-counting phrases.

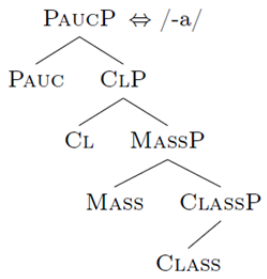
The progression from the table to the syntactic trees highlights how the morphological composition translates into hierarchical representations. The structure of the noun *jabłk* 'apple' and the suffix *-a* is shown in (14). These syntactic trees – called lexical entries within Nanosyntax – represent the structure of the morphemes stored in the lexicon.

(14) Lexical entries

a. ⇔ /jabłk/




b. PAUCP ⇔ /-a/




As shown in (14-a), the lexical entry for *jabłk* 'apple' contains all the features (excluding MASC and FEM as *jabłk* is neuter), as the root is used in high-counting phrases. Furthermore, this complex lexical item is needed to explain why the high-counting form is lexicalized by the root alone while pseudo-partitive and paucal require suffixes (Caha et al. 2023). It can generate the correct output of the inserted features, as the structure for the suffix *-a* is contained within the root of the noun.

The lexical entry for *jabłk* in (14-a) features a Complex Left Branch (CLB, e.g., Starke 2018), which plays a crucial role in accounting for this type of AAB pattern. Specifically, the high-counting form *jabłek* is lexicalized by the root alone, without any suffix, while pseudo-partitive and low-counting forms require suffixal material. This asymmetry poses a paradox under the Lexicalization Algorithm, which favors direct lexicalization (by the root) over suffixation. Without a CLB, the root would incorrectly be able to lexicalize smaller portions of the structure as well, and suffixes like *-a* would never be inserted. The CLB resolves this by allowing the root to match only the full high-counting structure (up to QUANT), but not any of the intermediate projections, which are then lexicalized by suffixes. In this sense, CLBs

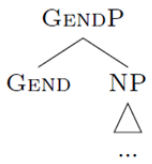
enforce a kind of lexicalization cutoff: they make the root available only for the largest relevant structure, ensuring that smaller cells in the paradigm are lexicalized differently.

Derivations, within the Nanosyntax framework, are the step-by-step syntactic processes that generate structures from the functional sequence of features. As Nanosyntax assumes that every feature corresponds to an independent head in syntax, derivations involve merging, moving, and lexicalizing (checking if structures are identical as lexical entries of morphemes stored in the lexicon) these heads according to the Lexicalization Algorithm (Caha et al. 2023), (15):

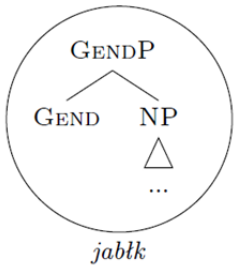
(15) Lexicalization Algorithm (Caha et al. 2023: 41), version 1 of 4
a. Merge F and lexicalize.

The derivation of the AAB pattern begins with assembling GENDP by merging GEND for neuters and NP, representing the root of the noun, (16). Following the first step of the Lexicalization Algorithm, every newly merged structure must be lexicalized. This involves searching the lexicon for an entry that is identical. If a match is found, the structure is lexicalized as the morpheme corresponding to the lexical entry, as demonstrated in (17) for *jabłk*:

(16)




(17)



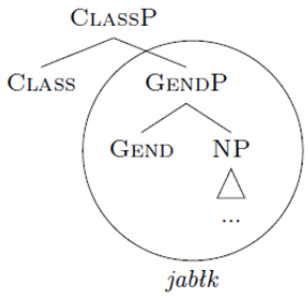

(16) depicts the initial step of the derivation, where GENDP is merged with NP, while (17) illustrates the lexicalization process, in which the lexicon is checked for a matching (= identical) lexical entry. Although the structure in (16) does not exactly match the lexical entry for *jabłk* in (14-a), it can still be lexicalized as *jabłk* because it satisfies the Condition on Matching, (18):

(18) Condition on Matching (Caha et al. 2023: 18)
A lexically stored constituent L matches a syntactic phrase S iff S is identical to L.

According to this condition, the structure in the derivation, (16), must be contained within the lexical entry, (14-a). This requirement is met, allowing the structure to be lexicalized as *jabłk*.

To this state of the derivation, the structure could be lexicalized. While merging CLASS, the lexicalization is not possible, as the tree in (19) does not have the identical space structure as the lexical entry in (14-a), thus it cannot be lexicalized as *jabłk*:

(19)



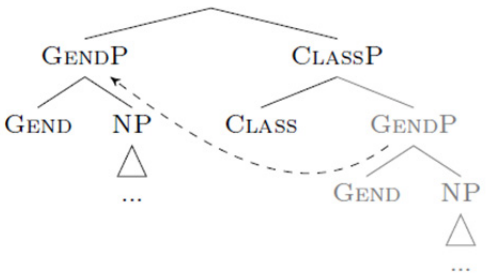

If lexicalization fails after merging a feature, a rescue movement becomes necessary (so named because it "rescues" the derivation). To account for this, an updated version of the Lexicalization Algorithm incorporating rescue movement is introduced in (20):

(20) Lexicalization Algorithm (Caha et al. 2023: 41), version 2 of 4
a. Merge F and lexicalize.
b. If fail, evacuate the closest labelled non-remnant constituent and lexicalize.

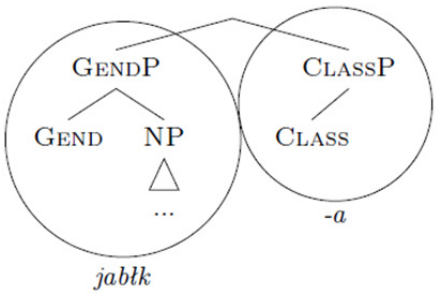
The rescue movement operates on a straightforward principle: a constituent must be moved above the newly merged feature to resolve the failure. This constituent must meet three specific conditions: it must be closest to the merged feature, it must have a label and it must be a non-remnant, meaning nothing from this constituent was moved out.

The closest labelled non-remnant constituent is GendP, which lexicalizes *jabłk*. Its evacuation, (21), ensures that *jabłk* is preserved while a new branch for the suffix *-a*, with the bottom feature Class, is formed, (22).

(21)

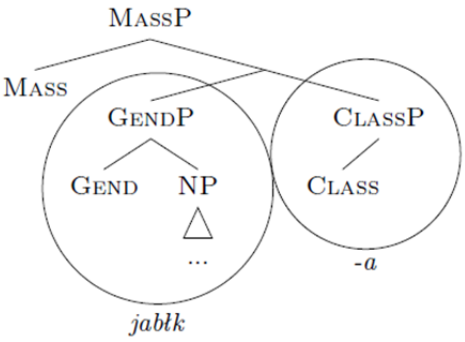



(22)

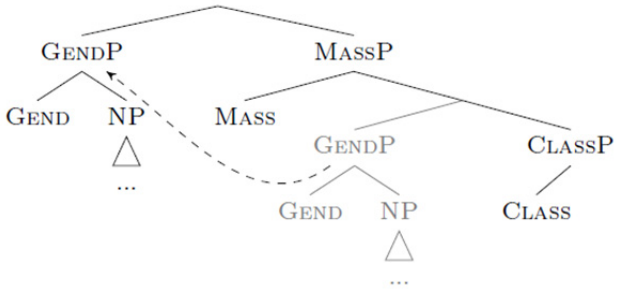



Next, Mass is merged, as it is required for nouns in pseudo-partitive phrases. Upon its merge, (23), and after evacuating GendP, (24), the resulting structure corresponds to the noun in the pseudo-partitive phrase *kawałek jabłk-a* 'a piece of apple', (25).

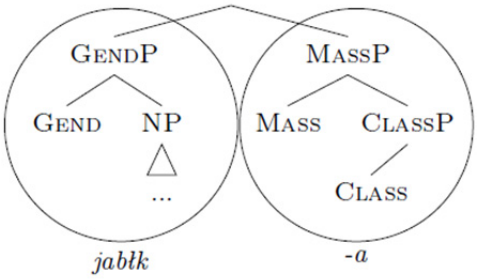
(23)



(24)

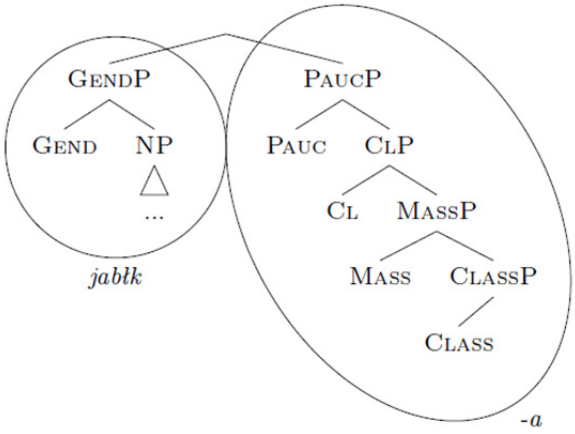



(25)




Following analogous steps, the noun in the low-counting phrase *dwa jabłk-a* 'two apples' is derived by sequentially merging CL, which adds countability, and PAUC, which adds the paucal number required in such phrases, (26).

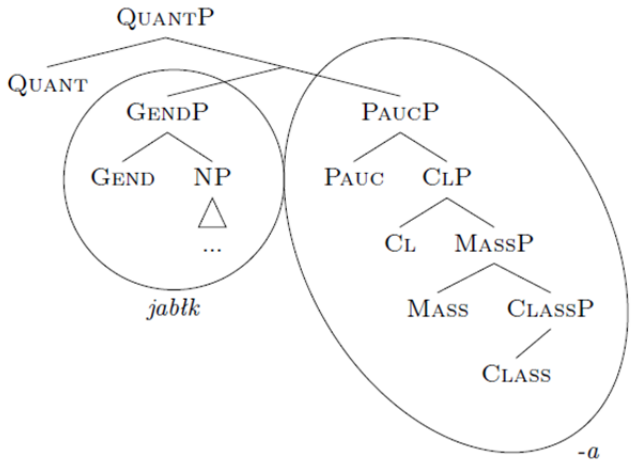
(26)



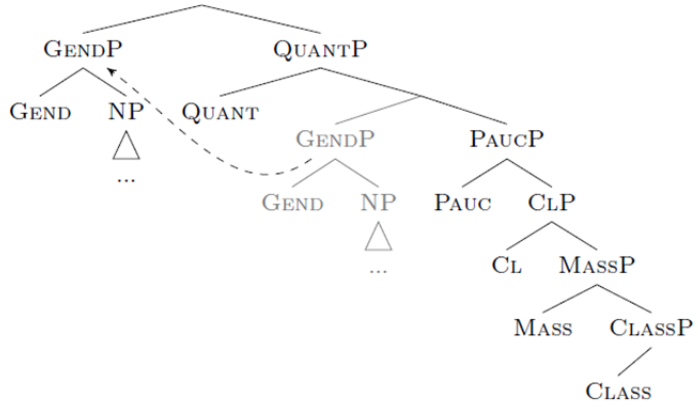

For the noun in the high-counting phrase *pięć jabłek-ø* 'five apples', QUANT, representing plural, must be merged, (27). Since lexicalization fails at this stage, the evacuation of GENDP is necessary, (28), resulting in the structure in (29).[4]

[4] The vowel *e* in *jabłek* is traditionally analysed as a yer (a reduced vowel) that either deletes or surfaces as *e* depending on phonological context. For discussion see Scheer (2012).

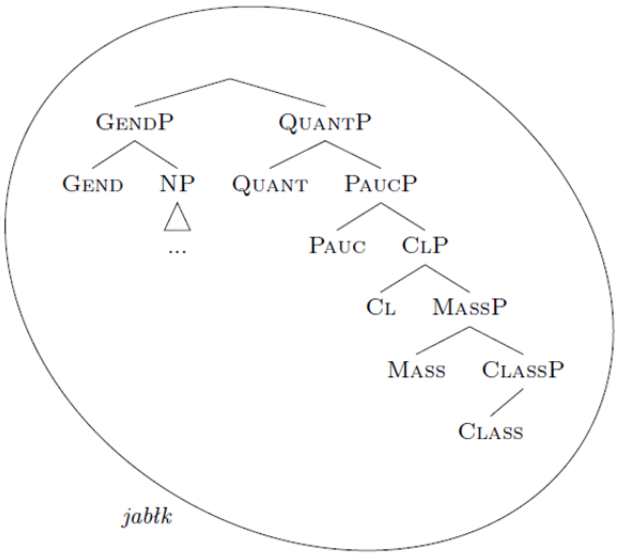
(27)




(28)




(29)




The AAB pattern demonstrates adjacent syncretism between pseudo-partitive and low-counting phrases, using the same suffix *-a* involving features from Class up to Pauc. High-counting phrases, however, lack overt markers, thus the root itself must accommodate the features of the root – NP and GendP – but also the features from the high-counting context – from Class up to Quant.

The derivation in (29) illustrates a particular type of lexicalization, where the root *jabłk* lexicalizes the entire structure up to Quant without the need for an overt suffix. This behaviour corresponds to what Blix (2021) refers to as a "levelling" derivation: the root

lexicalizes a superset of the features lexicalized by competing suffixes and thus blocks them from insertion. In the terms of Nanosyntax, the lexical entry for *jabłk* contains a movement-derived tree, which allows it to match larger feature structures via the Condition on Matching. This contrasts with roots such as *ziemniak* and *pomarańcz*, whose lexical entries are limited to lower segments of the functional sequence (up to CLASS). As a result, they rely on suffixes like *-ów*, *-i*, *-e*, or *-y* to lexicalize higher layers.

### *3.2. ABC*

This section addresses the derivation of the ABC pattern, which exhibits no syncretism. For ease of reference, the relevant data from (2) are repeated below, (30):

(30) ABC (Native speaker)

| | | |
|---|---|---|
| a. | kawałek | **ziemniak-a** |
| | a.piece.NOM | potato.M-GEN.SG |
| | 'a piece of potato' | |
| b. | dwa | **ziemniak-i** |
| | 2.NOM.M | potato.M-NOM.PL |
| | 'two potatoes' | |
| c. | pięć | **ziemniak-ów** |
| | 5.NOM | potato.M-GEN.PL |
| | 'five potatoes' | |

This pattern occurs exclusively among Polish masculines. The derivation must account for the structure of *ziemniak* 'potato' and its three suffixes: *-a* for pseudo-partitive constructions, *-i* for low-counting phrases, and *-ów* for high-counting phrases. The suffix *-a* is particularly challenging, as it appears in the AAB and ABC patterns. Its structure must accommodate both contexts. The core analytical challenge in the ABC pattern lies in the paucal cell, where suffixes *-a* and *-i* appear in a complementary distribution depending on gender. In neuter nouns like *jabłko*, the suffix *-a* lexicalizes CLASS up to PAUC, while in masculine nouns like *ziemniak*, *-i* lexicalizes MASC up to PAUC. Since both suffixes target the same structural slot (PAUC), the derivation must ensure that *-i* blocks *-a* in the masculine paradigm. This requires a careful design of lexical entries: *-a* must be unable to lexicalize MASC, and *-i* must be constructed so that it includes MASC as a necessary feature. This gender-based lexical competition is crucial to the ABC pattern and underlies the complexity of the derivation in this section.

The structure of the relevant morphemes is summarised in the table below, (31):

(31) Lexicalization table

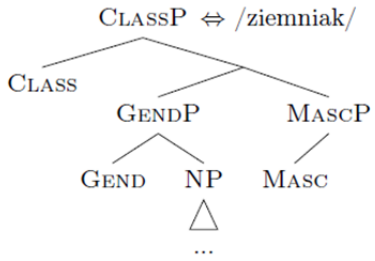
| NP | GEND | MASC | FEM | CLASS | MASS | CL | PAUC | QUANT | |
|---|---|---|---|---|---|---|---|---|---|
| ziemniak | | | | | | | | | 'potato' |
| | | | | | -a | | | | P-PART |
| | | | | | | | -i | | LOW |
| | | | | | | | | -ów | HIGH |

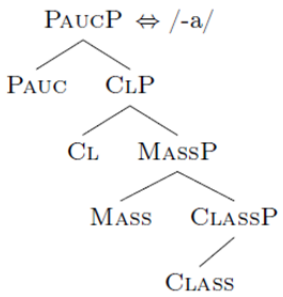
The table illustrates the structure of the morphemes interacting in the derivation of the ABC pattern. The noun *ziemniak* 'potato' carries features up to CLASS, excluding FEM (indicated by the black cell), as *ziemniak* is masculine. The suffix *-a* retains the same structure as in the AAB pattern. The suffix *-i*, appearing only in the ABC pattern's low-counting construction, starts from MASC and ends at PAUC. The suffix *-ów*, appearing in high-counting contexts, starts from MASC and ends to QUANT.

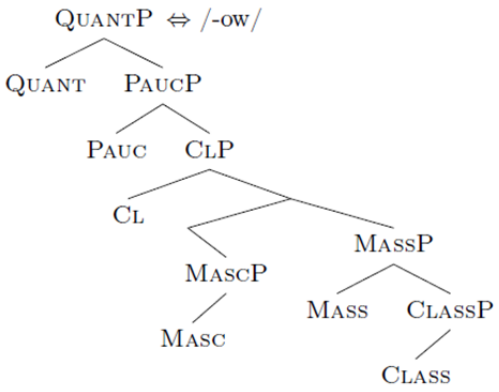
Although a more straightforward, right-branching structure might suffice for the *ziemniak* paradigm, the analysis presented here adopts a complex lexical entry with a left branch in order to block the suffix *-a* from appearing in low-counting contexts with masculine nouns. The suffix *-a*, which lexicalises from CLASS up to PAUC in the *jabłk* paradigm, lacks the MASC feature and is therefore unable to lexicalise MASC up to PAUC. In contrast, *-i* does lexicalise MASC up to PAUC, allowing it to appear exclusively in masculine low-counting phrases. To ensure that *-i* is inserted in the presence of *-a*, the root *ziemniak* is assigned a lexical entry that forces the derivation to choose *-i* in the masculine low-counting context. This design aligns with the morphological opposition between *-a* and *-i*, rooted in gender, and reflects the observed distribution.

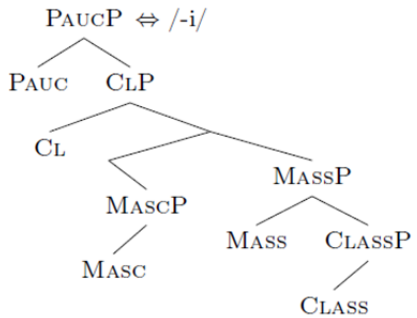
The exact syntactic structures of these morphemes are provided in (32):

(32) Lexical entries

a. 

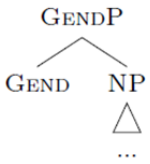

b. 


c. 

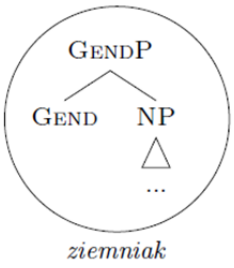

d. 


The derivation begins with the merging of GEND and NP, (33), where the structure is lexicalized as *ziemniak*, (34):

(33)

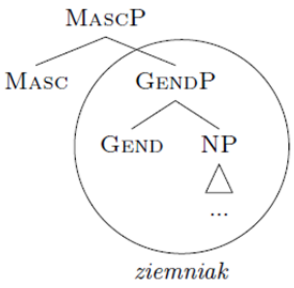



(34)

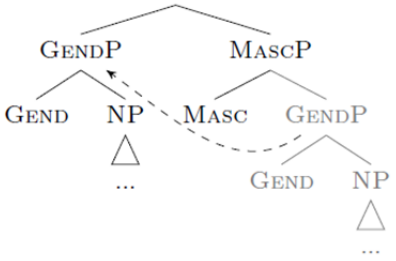



At the point where MASC is merged, (35), lexicalization fails because no identical entry, such (32-a), exists. As a result, rescue movement is triggered: the closest non-remnant constituent – GENDP – is evacuated, (36). Then, the structure is successfully lexicalized as *ziemniak*, (37):

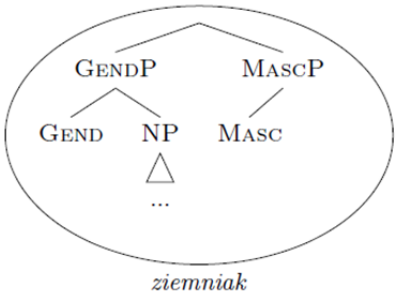
(35)




(36)

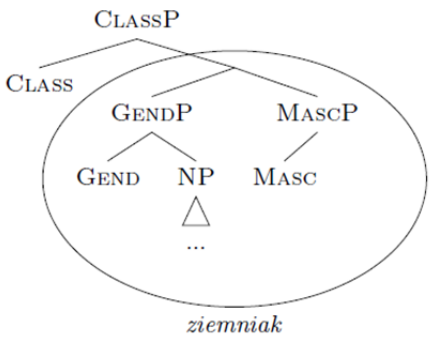



(37)

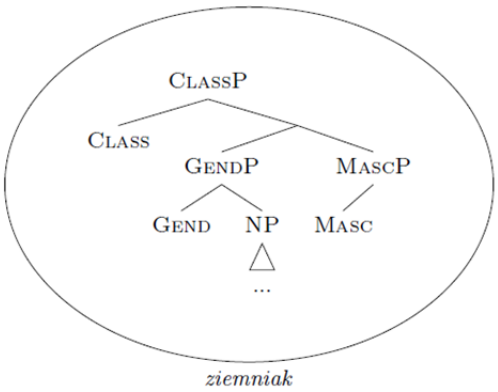



The next step involves merging CLASS, (38). At this stage, the structure can be immediately lexicalized as *ziemniak*, (39):

(38)



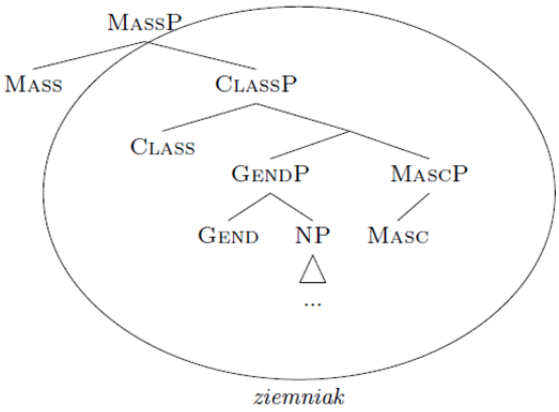

(39)



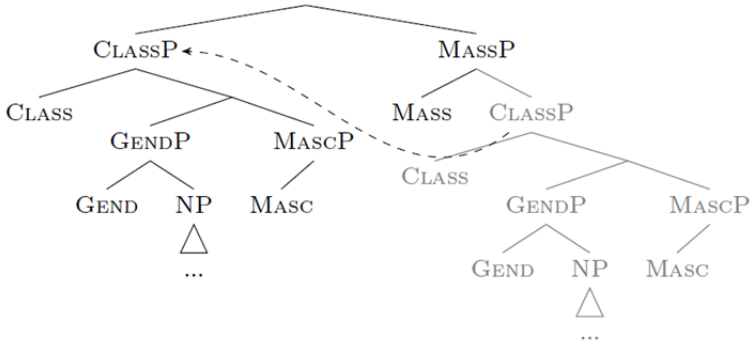

Next, the MASS feature is merged to derive the structure for the pseudo-partitive phrase: *kawałek ziemniak-a* 'a piece of potato', (40).

At this point, lexicalization fails again, requiring the evacuation of ClassP being the closest non-remnant constituent , (41). However, this evacuation does not resolve the lexicalization issue either, (42).

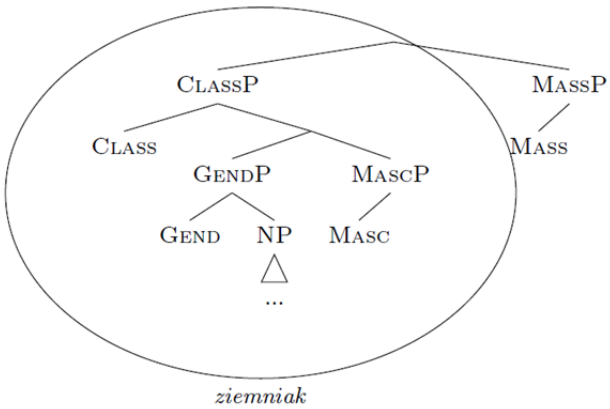
(40)




(41)




(42)




If lexicalization fails after the first rescue movement, i.e., evacuation, a second rescue movement must be applied. This step requires the evacuation of the immediately dominating constituent. In essence, this means that the closest labelled non-remnant constituent takes its sister node and evacuates with it above the newly merged feature. This procedure is also called pied-piping and it aligns with the updated version of the Lexicalization Algorithm, (43):

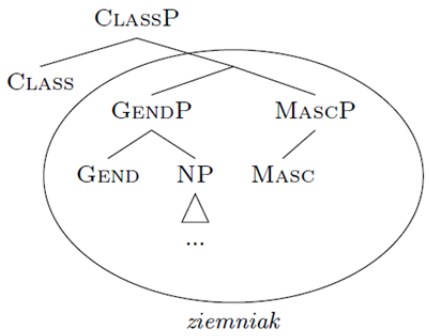
(43) Lexicalization Algorithm (Caha et al. 2023: 41), version 3 of 4
a. Merge F and lexicalize.
b. If fail, evacuate the closest labelled non-remnant constituent and lexicalise.
c. If fail, evacuate the immediately dominating constituent and lexicalise (recursive).

The problem with the structure in (40) is that pied-piping cannot be done as ClassP does not have a sister node to pied-pipe (the newly merged feature cannot be involved), the only possible option was evacuation, (41). If pied-piping proves ineffective (or is not realizable as in (40)), backtracking, the final step of the Lexicalization Algorithm, applies. See (44) for the updated and the last version of the Lexicalization Algorithm:

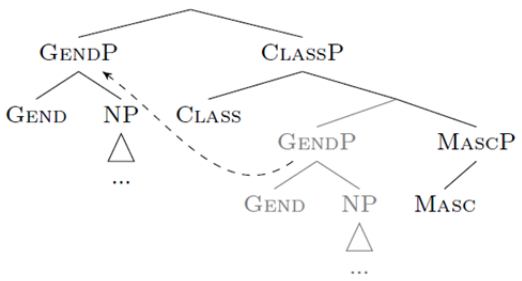
(44) Lexicalization Algorithm (Caha et al. 2023: 41), version 4 of 4
a. Merge F and lexicalize.
b. If fail, evacuate the closest labelled non-remnant constituent and lexicalise.
c. If fail, evacuate the immediately dominating constituent and lexicalise (recursive).
d. If fail, go back to the previous cycle, and try the next option for that cycle (Starke 2018: 245).

Backtracking requires the derivation to return to the previous cycle – in this case, to the merging of the preceding feature (Class) – and attempt the next option outlined in the Lexicalization Algorithm. When Class was merged, (38), no rescue movement was employed; thus, the next step now involves evacuation of GendP. (45) shows going back when merging Class, (46) the evacuation and (47) the unsuccessful lexicalization.

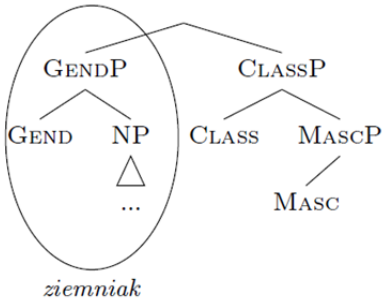
(45)




(46)

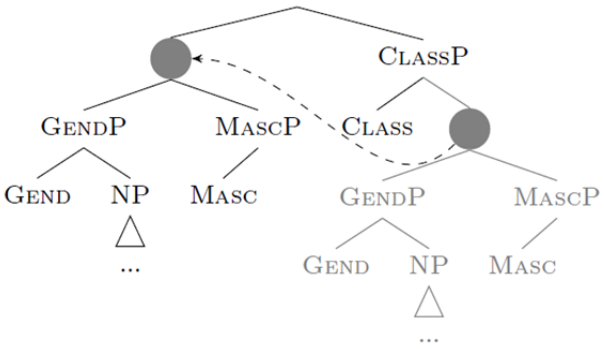



(47)

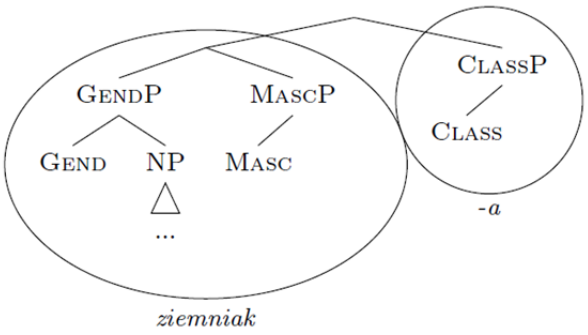



As seen, evacuation of the closest labelled non-remnant constituent does not help, thus pied-piping as the next rescue movement applies. Emerging from (45), pied-piping is applied in (48). GendP is the closest labelled non-remnant constituent and it can pied-pipe its sister, i.e., MascP. The gray circles serve as visual aids to indicate which constituent is being moved during pied-piping. They are auxiliary and do not actually exist in the real syntactic structure.

(48)




(49)



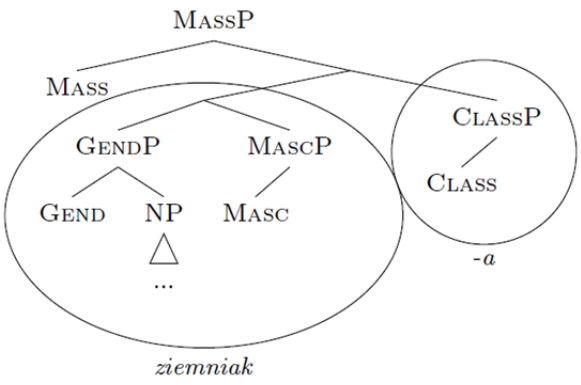

The structure in (49) lexicalizes as *ziemniak* and *-a*, due to the Elsewhere Condition, (50):

(50) Elsewhere Condition (Kiparsky 1973, cited from Caha et al. 2023)
In case two rules, R1 and R2, can apply in an environment E, R1 takes precedence over R2 if it applies in a proper subset of environments compared to R2.

As the Condition says, in case of two competing lexical entries, the one with less features wins, thus the structure in (50) lexicalizes as *-a*.

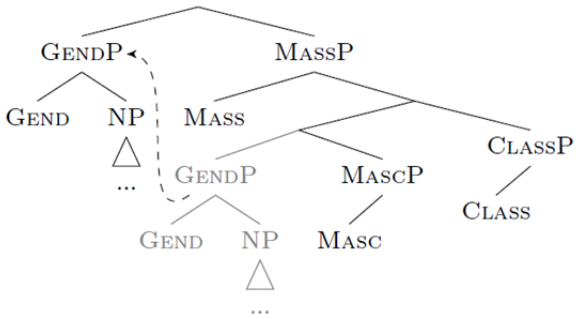
To derive the noun from pseudo-partitive phrases: *kawałek ziemniak-a* 'a piece of potato', Mass needs to be merged, (51):

(51)

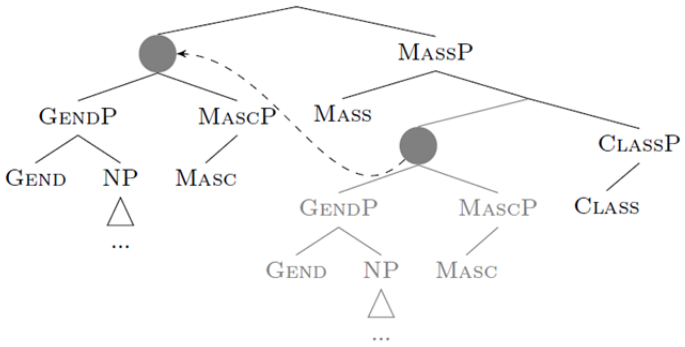



The structure in (51) cannot be lexicalized, thus the rescue movements are triggered. The first one being the evacuation of GendP. However, its evacuation does not help with lexicalization, (52), thus pied-piping is employed, (53), leading to *ziemniak* and *-a*, (54), from the pseudo-partitive phrase *kawałek ziemniak-a* 'a piece of potato'.

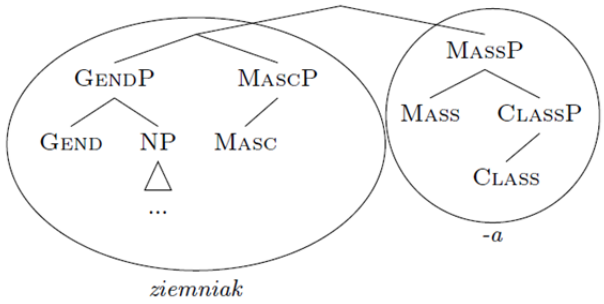
(52)




(53)

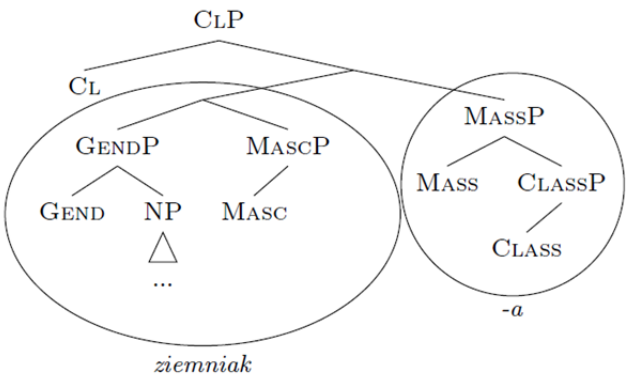



(54)

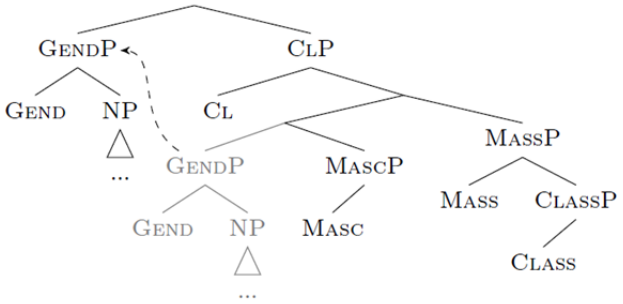



To derive the noun from low-counting phrases, Cl and Pauc must be merged. Upon merging Cl, (55), lexicalization fails, necessitating a rescue movement. Thus, GendP is evacuated, (56). The resulting structure allows for lexicalization as *ziemniak* and *-i*, (57). This is the step when the magic happens. With this sub-extraction, the shape of the whole suffix changes and it is identical to the *-i* suffix required for the low-counting context within the ABC pattern.

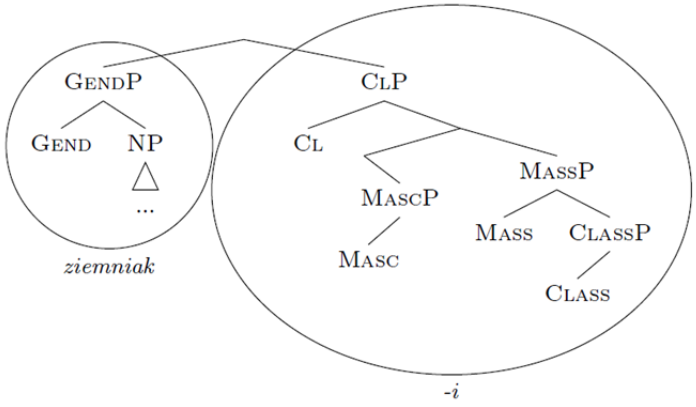
(55)



(56)

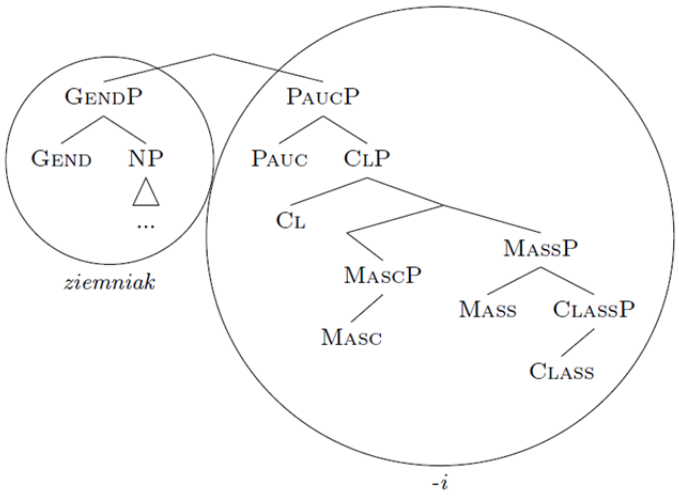



(57)




The same step is applied when merging PAUC: GENDP is evacuated, resulting in (58), the structure of the noun in the low-counting phrase: *dwa ziemniak-i* 'two potatoes'.

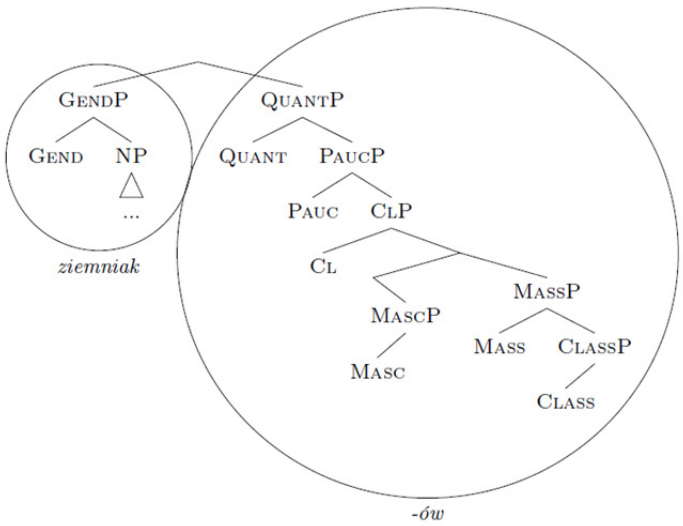
(58)




This specific form of the *-i* suffix ensures that it appears exclusively with masculine nouns, unlikethe *-a* suffix, which is restricted to neuter nouns.

To derive the noun from the high-counting phrase: *pięć ziemniak-ów* 'five apples', QUANT must be merged. With analogous steps – evacuating of GENDP – the resulting structure, (59), shows *ziemniak* and *-ów*.

(59)




This pattern faces a challenge due to the suffix *-a*, appearing in pseudo-partitive phrases of both patterns, but is absent in low-counting phrases, where *-i* appears instead. The structure of each suffix must allow it to appear in the appropriate context. The structure of *-a* allows it to appear in pseudo-partitive phrases for both patterns but prevents it from appearing in low-counting phrases within ABC. The *-ów* suffix, having no rival, can adopt the structure of *-i* and incorporate QUANT, as it is used in high-counting contexts.

### *3.3. ABA*

The final observed syncretism pattern is ABA. While often labelled ABA due to its structural shape, this pattern differs significantly from other cases discussed in the literature. For instance, Bobaljik (2012) analyses ABA patterns in adjectival morphology, where the root alternates (e.g., good – better – *goodest), and such cases are typically handled in Nanosyntax by root suppletion and backtracking. Similarly, Cortiula (2023) discusses verbal ABA-like patterns in Friulian, which involve root alternations and are often described as pseudo-ABA (e.g., Middleton 2020).

In contrast, the Polish ABA pattern examined here shows no alternation in the root. The root remains constant across all three cells, and the variation arises solely in the suffix: it follows an Ax–Ay–Ax pattern. This makes the Polish case a different analytical challenge, requiring a different solution than suppletion - or root-based analyses. For this reason, we retain the label ABA descriptively, while recognising that it represents a distinct subtype of syncretism patterns, one where the suffix – not the root – alternates in a non-monotonic way. The relevant Polish data, originally presented in (4), are repeated in (60):

(60) ABA (Native speaker)

| | | |
|---|---|---|
| a. | kawałek | **pomarańcz-y** |
| | a.piece.NOM | orange.F-GEN.SG |
| | ‘a piece of orange’ | |
| b. | dwie | **pomarańcz-e** |
| | 2.NOM.F | orange.F-NOM.PL |
| | ‘two oranges’ | |
| c. | pięć | **pomarańcz-y** |
| | 5.NOM | orange.F-GEN.PL |
| | ‘five oranges’ | |

The order partitive < paucal < high-counting assumed in this analysis is not derived from surface syncretisms, but from the internal structure of the quantified noun phrase. In the Polish ABA paradigm, exemplified by *pomarańcz-y* (GEN.SG), *pomarańcz-e* (NOM.PL), and *pomarańcz-y* (GEN.PL), the suffix *-y* appears in the first and third cells, with *-e* intervening in the paucal context. This pattern necessitates a structural sequence where the paucal cell is sandwiched between the partitive and the high-counting cell. The syntactic motivation for this ordering lies in the functional sequence assumed here: partitives project only up to MASS, paucals add CL and PAUC, and high-counting phrases further extend the structure with QUANT. This cumulative architecture has been independently supported by derivational and morphological diagnostics presented in Žoha (2025b), and underpins the ABA configuration discussed below.

The structure of each morpheme used is summarised below, (61):

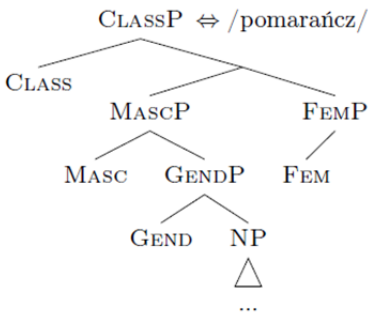
(61) Lexicalization table

| NP | GEND | MASC | FEM | CLASS | MASS | CL | PAUC | QUANT | |
|---|---|---|---|---|---|---|---|---|---|
| pomarańcz | | | | | | | | | ‘orange’ |
| | | | | | -y | | | | P-PART |
| | | | | | | | -e | | LOW |
| | | | | | | | | -y | HIGH |

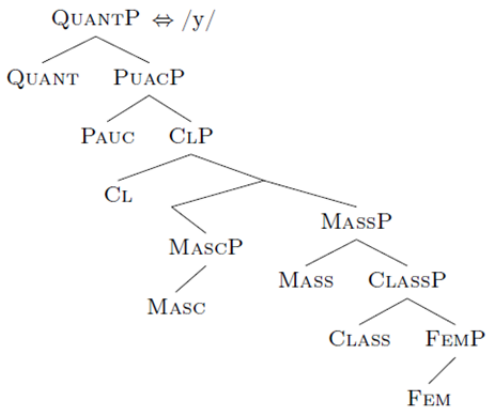
While the lexicalization table illustrates the morpheme structure, it does not convey the spatial configuration. The lexical entries below, (62), provide this structural representation:

(62) Lexical entries

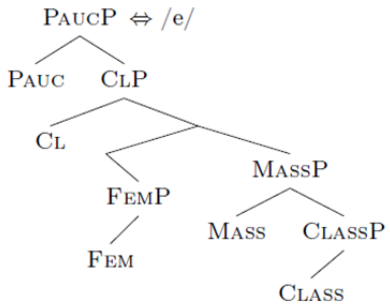
a.



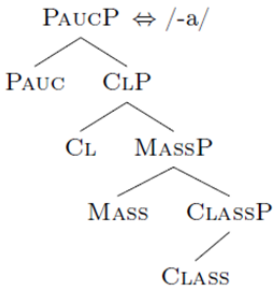

b.



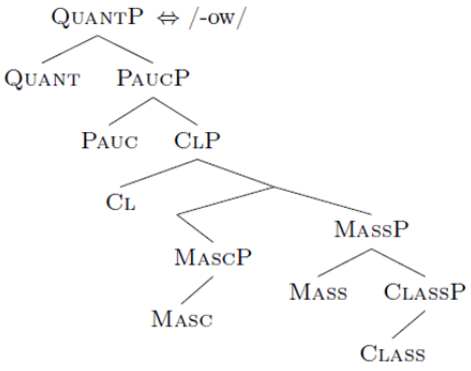
c.



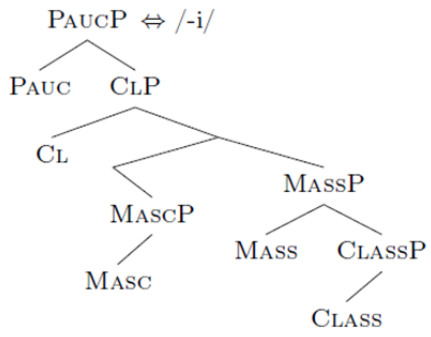

d.




e.



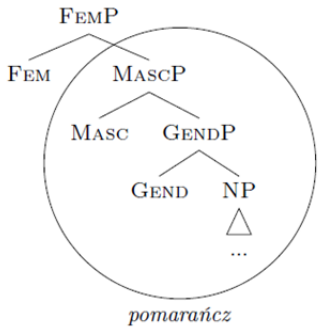

f.



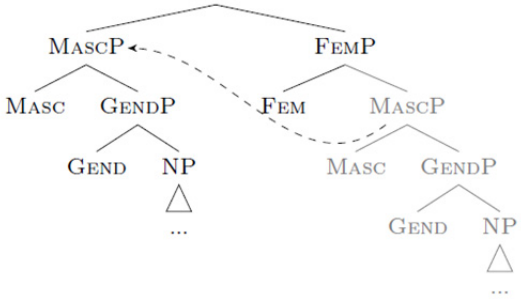

To fully account for intermediate steps, lexical entries for the suffixes *-a* and *-i* are included.

The derivation begins by merging and lexicalizing compatible features until encountering FEM, where no match occurs, (63). This necessitates the evacuation of MASCP, (64), as the closest labelled non-remnant constituent. Once this is done, the structure can be lexicalized as *pomarańcz*, (65).

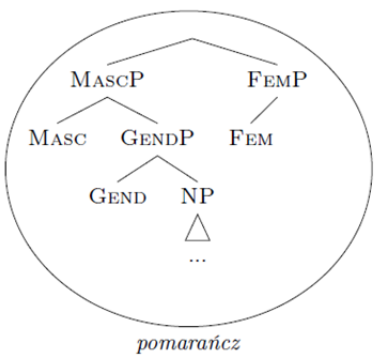
(63)



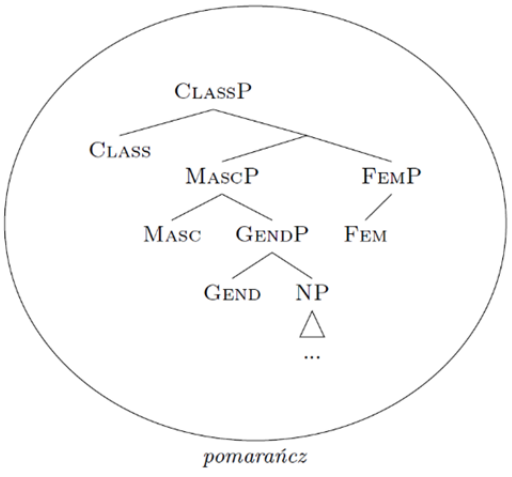

(64)




(65)



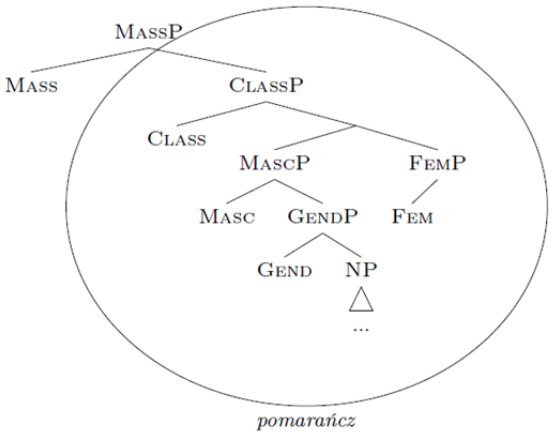

(66)



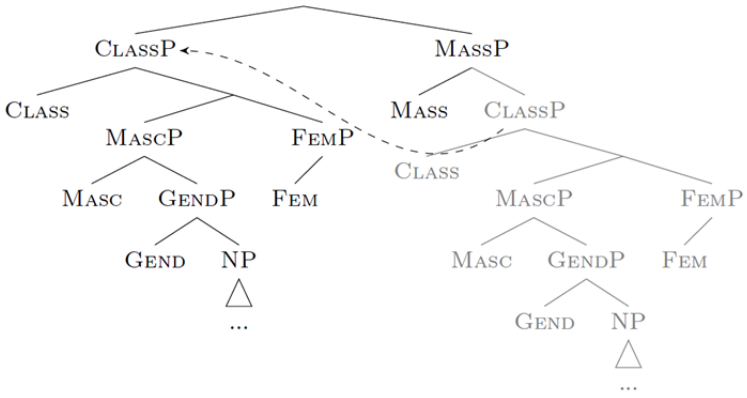
The last step to derive the full structure of the root noun *pomarańcz* is merging CLASS. Since no rescue movement is required, the whole structure can be lexicalized as *pomarańcz*, (66).

When deriving the noun from pseudo-partitive phrases, MASS must be merged, (67). As it cannot be lexicalized, evacuation of CLASSP is triggered, but failing to achieve lexicalization, (68).[5]

(67)

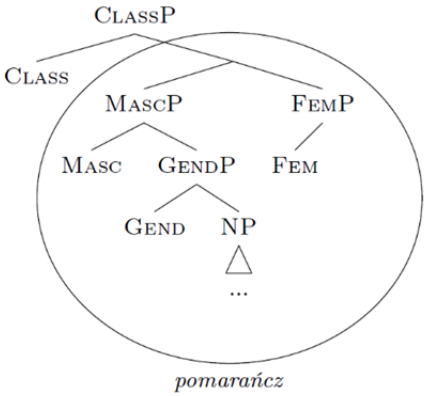



(68)

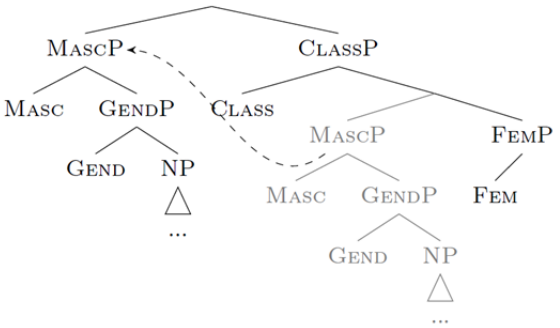



As rescue movements are ineffective, backtracking applies, requiring the derivation to return to the previous cycle – the merging of CLASS – and try the next step. When merging CLASS, no rescue movement was needed; thus, evacuation of MASCP is involved. (69) shows going back to merging CLASS, (70) the evacuation and (71) the lexicalization as *pomarańcz* and *-y*.

(69)

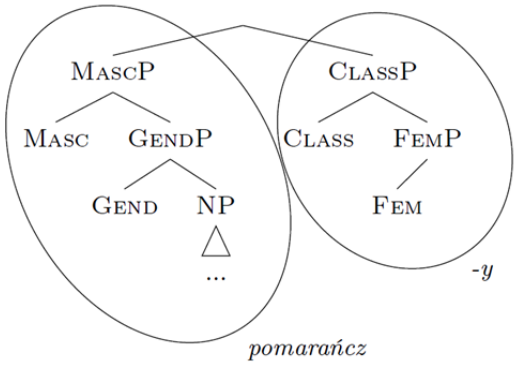



(70)



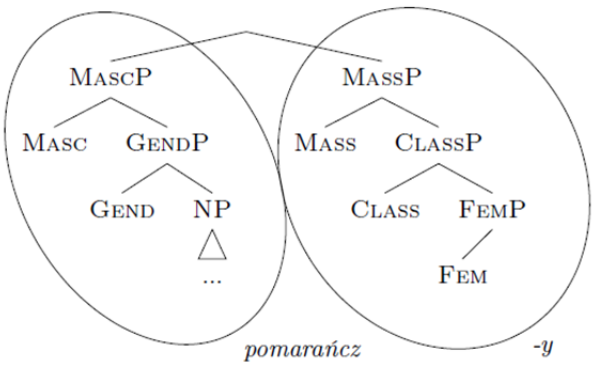

[5] A reviewer has suggested a movement of MASCP. This, however, would be considered as a special type of "depth" sub-extraction as discussed with Pavel Caha (p. c., 2025). For the needs of this paper, I stick with sub-extractions as known in the Lexicalization Algorithm proposed in Caha et al. (2023).

(71)



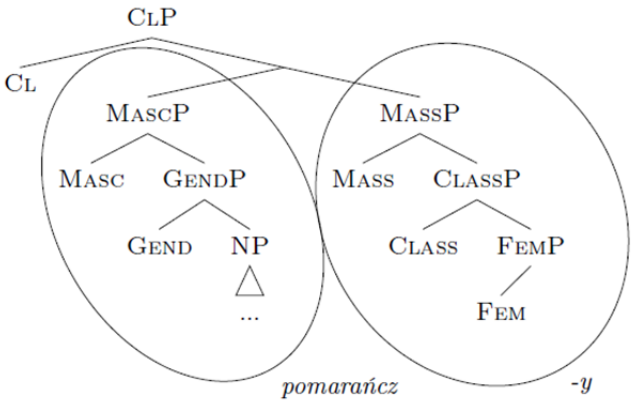

When merging Mass, evacuation of MascP is employed, resulting in (72) used in the pseudo-partitive phrase: *kawałek pomarańcz-y* 'a piece of orange'.

(72)

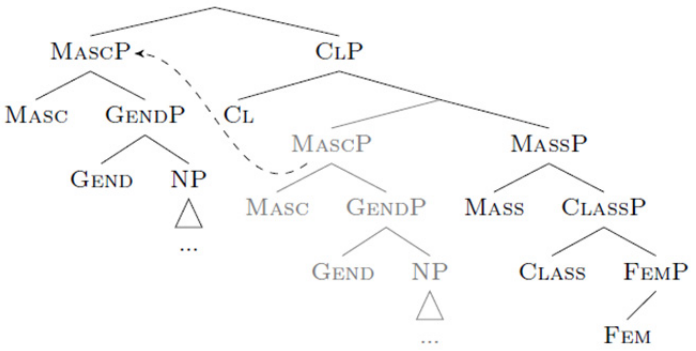



In low-counting phrases, the structure of the noun requires the merging of Cl and Pauc. As shown in (73), simply merging Cl does not make the structure lexicalizable. Neither the evacuation of MascP resolves the issue, (74), nor pied-piping, (75); thus the structure remains unlexicalizable.

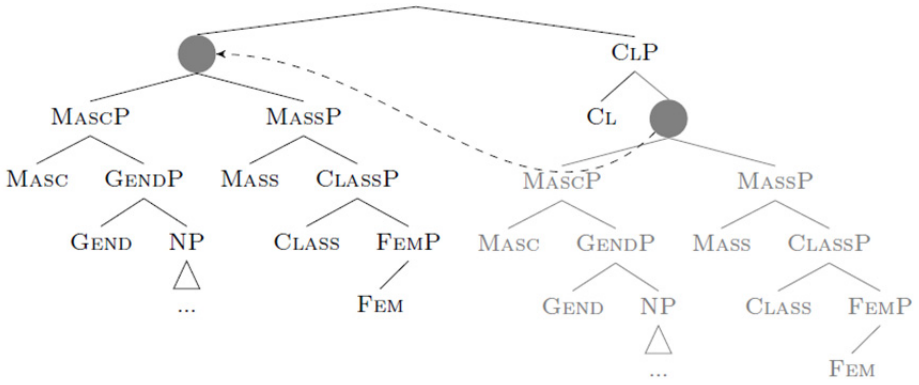
(73)



(74)

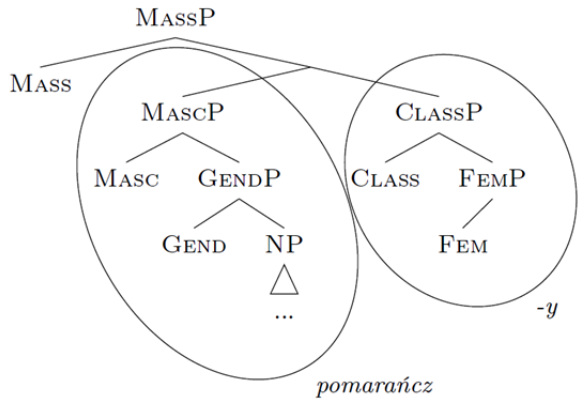



(75)

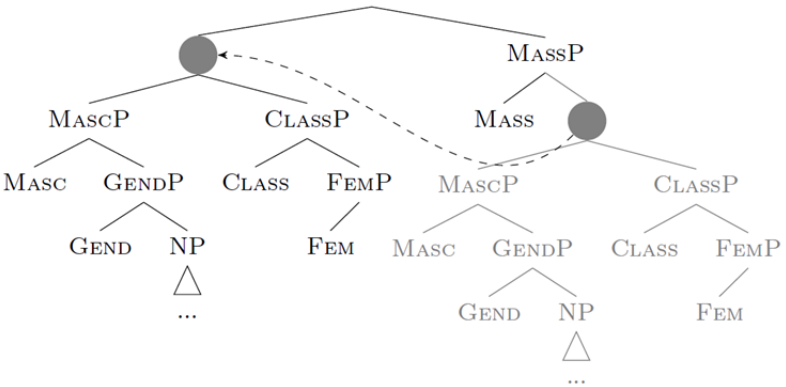



The last option to rescue the derivation is backtracking, i.e., to go back when merging Mass, (76). The previous step was evacuation, thus now pied-piping is required, (77).

(76)

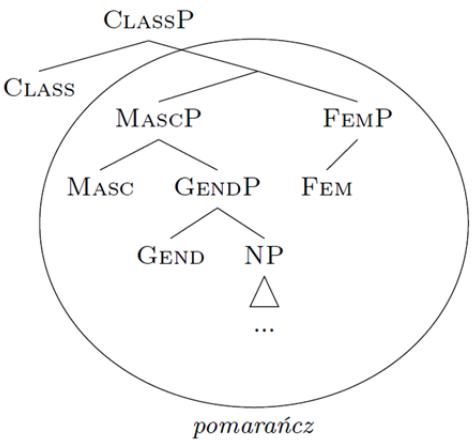



(77)

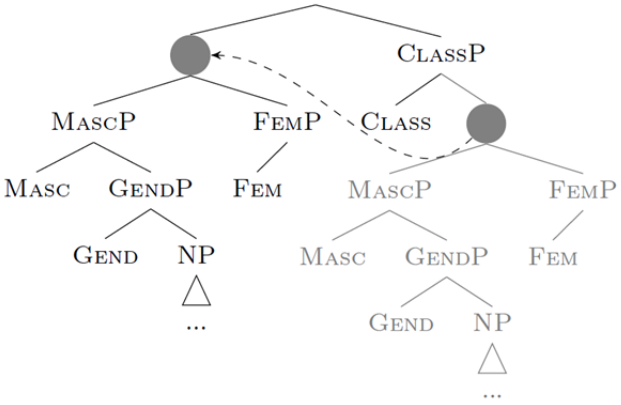


Pied-piping in (77), does not lead to a lexicalization, thus backtracking to merge CLASS is needed, (78). The previous step was an evacuation, (70), thus now pied-piping is required, (79):

(78)

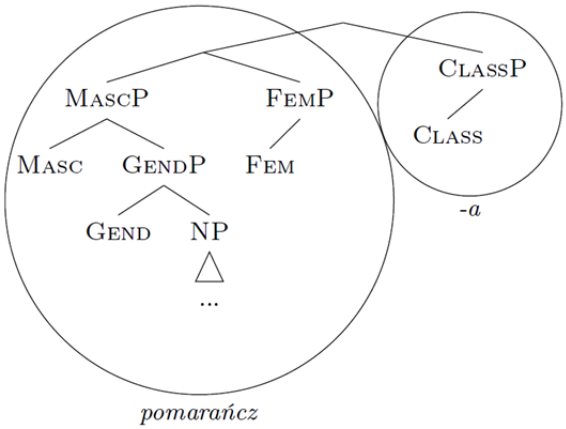



(79)



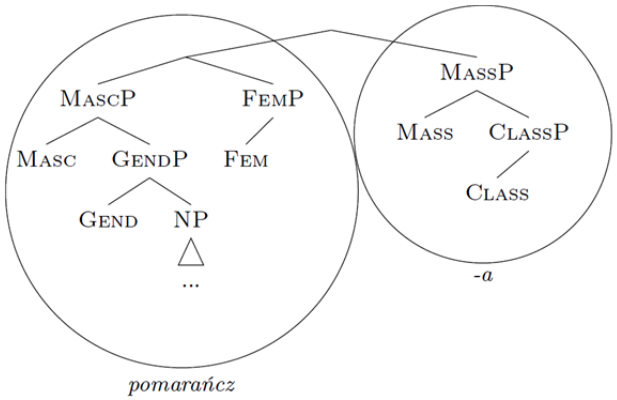

(80) shows the successful lexicalization of the derivation as *pomarańcz* and *-a*. Although *-a* is not the target suffix, the derivation can proceed as long as there is a match with lexical entries.

(80)



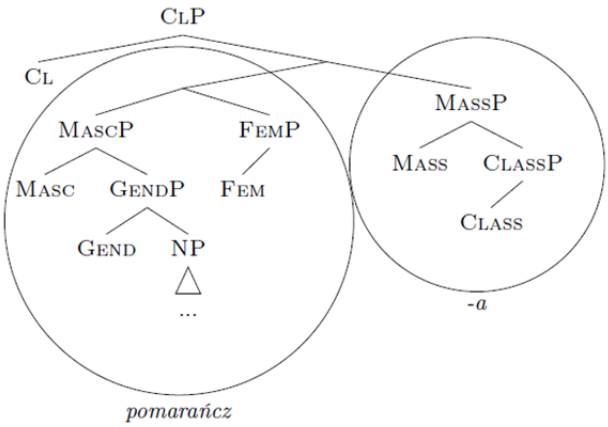

The very same steps, i.e., pied-piping, are followed when merging MASS resulting in (81):

(81)

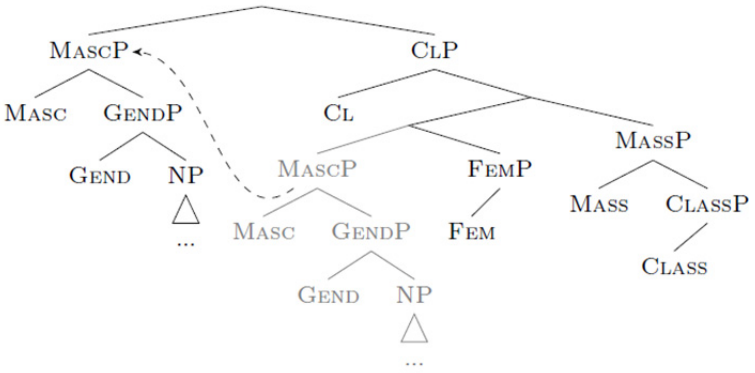



In the next step, Cl is merged, (82). As the structure cannot be lexicalized, the closest labelled non-remnant constituent must be evacuated (MascP), (83), resulting in *pomarańcz* and *-e*, (84).

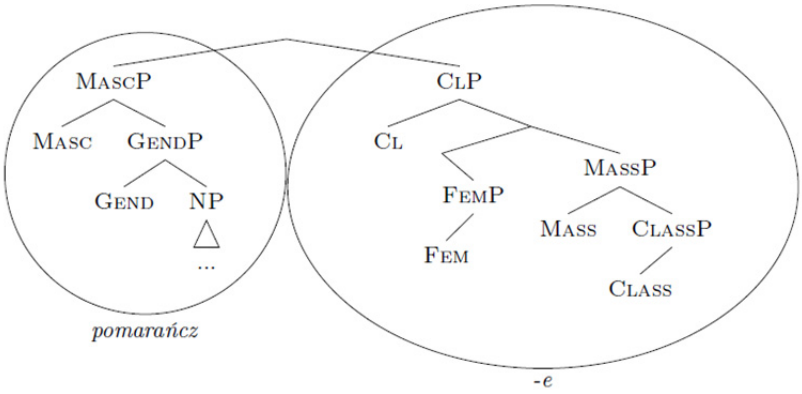
(82)




(83)

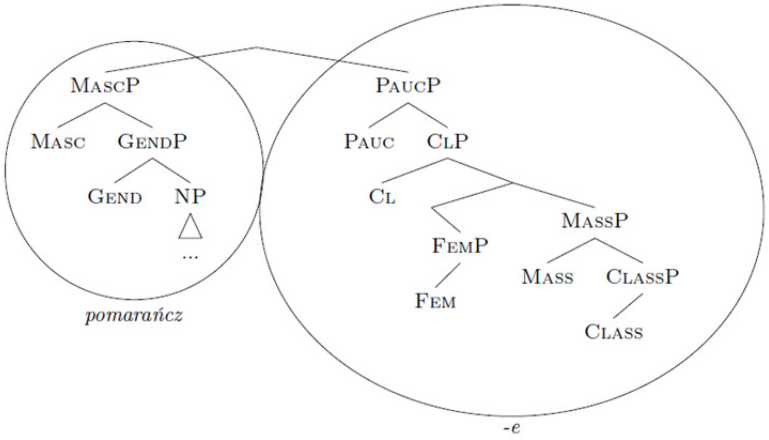



(84)



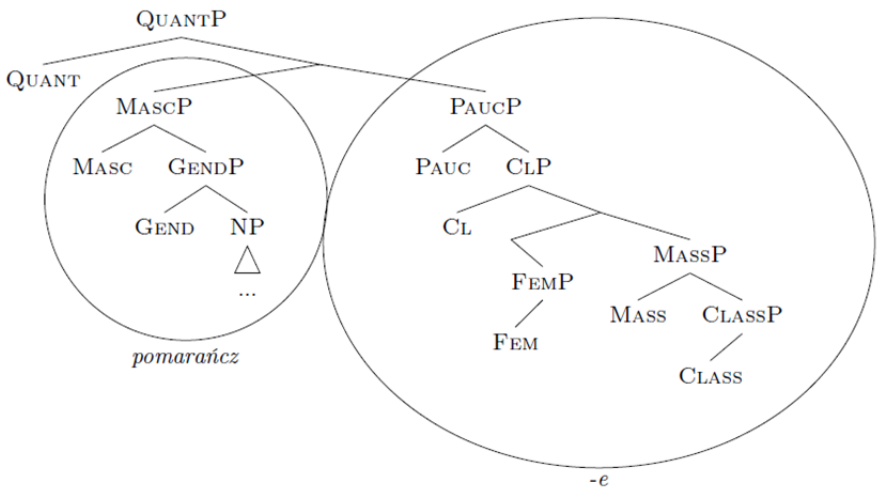
The same steps follow after merging PAUC, i.e., evacuation of MASCP resulting in (85), the structure of the noun in the low-counting phrase: *dwie pomarańcz-e* 'two oranges'.

(85)

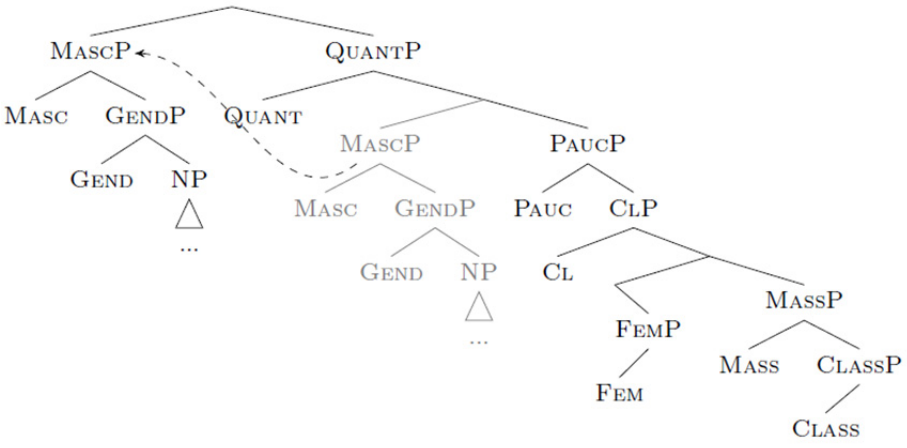



When merging QUANT, (86), to derive the noun from high-counting phrases, there is no possible lexicalization, thus rescue movements must be applied, but none of them work (see (87) for the evacuation of MASCP and (88) for pied-piping).

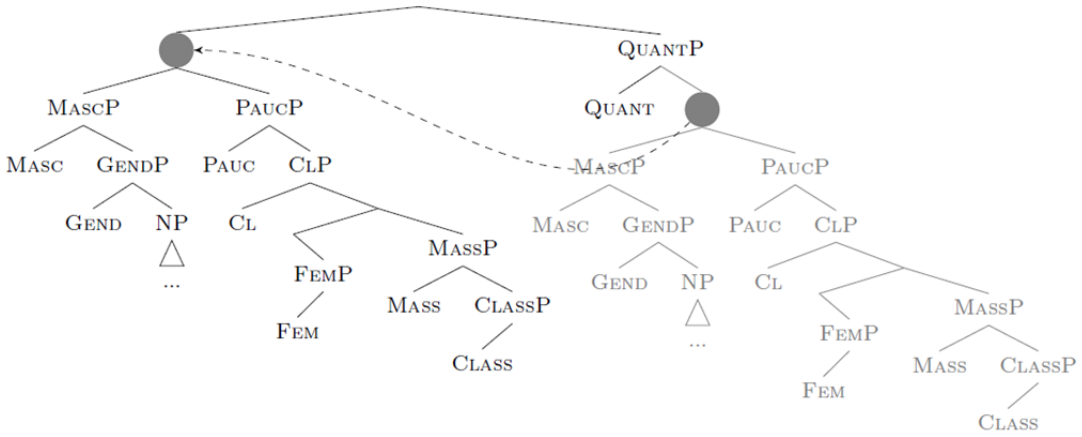
(86)




(87)



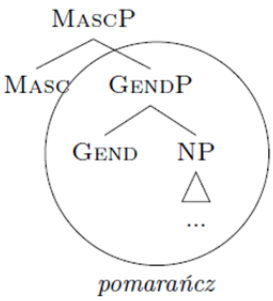
(88)



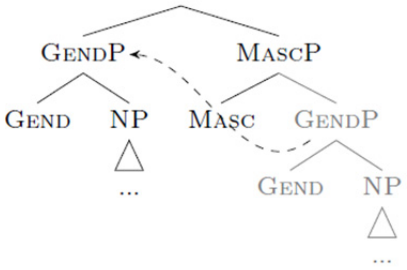

The only remaining step is backtracking. In the following paragraph, I describe the steps leading to a lexicalizable structure, the whole backtracking can be seen in the Appendix.

When merging PAUC, no rescue movement leads to a successful lexicalization, thus, more backtracking is required, i.e., merging CL with the same effect. The unsuccessful attempts continue until merging MASC, (89). The next step is evacuation of GENDP, (90), leading to successful lexicalization, (91), as *pomarańcz* and *-i*.

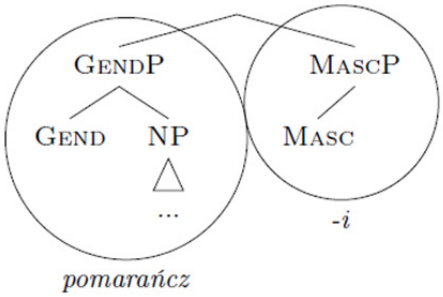
(89)




(90)

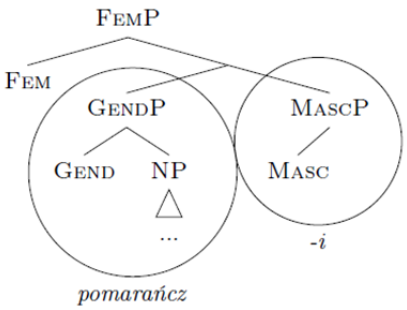



(91)

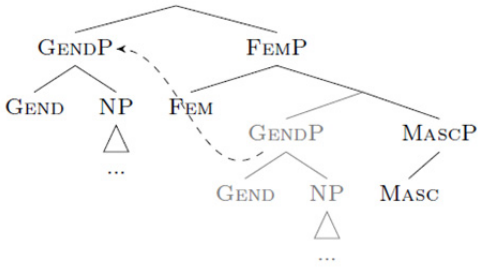



After these steps, the derivation proceeds as usual, i.e., merging the following feature being FEM, (92). The structure cannot be lexicalized, therefore the rescue movements are triggered, at first evacuation of GENDP, (93), leading to an unsuccessful lexicalization, thus pied-piping is triggered, (94), lexicalizing the structure as *pomarańcz*, *-i* and *-e*, (95). Even though the result includes two suffixes, this is not problematic: as long as each substructure matches an independently stored lexical entry, the derivation can proceed without violation of the Lexicalization Algorithm.

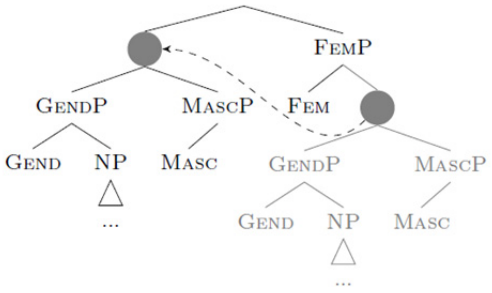
(92)



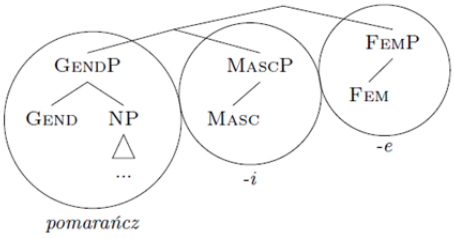

(93)




(94)

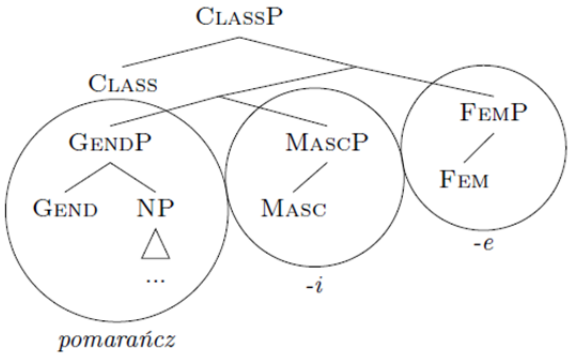



(95)

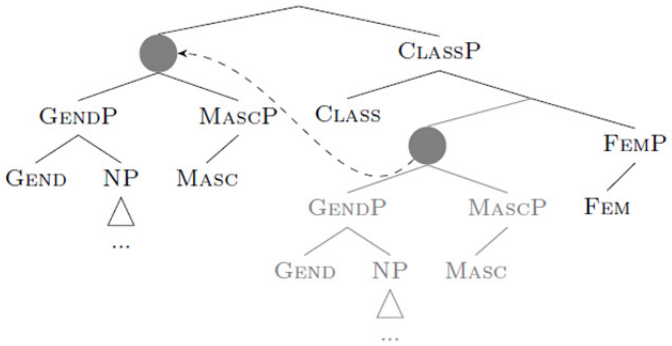



The derivation proceeds with merging Class, (96), requiring pied-piping, (97), (because evacuation does not lead to successful lexicalization) still resulting in *pomarańcz*, *-i* and *-y* in (98).

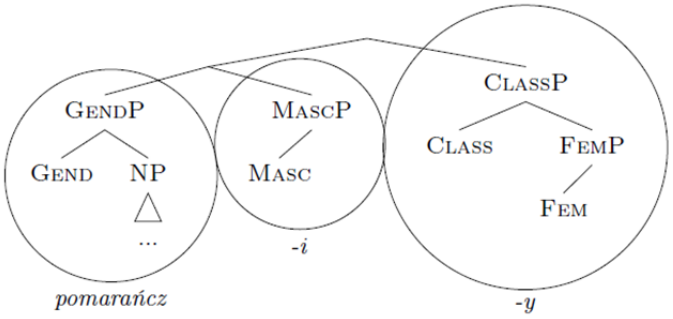
(96)




(97)

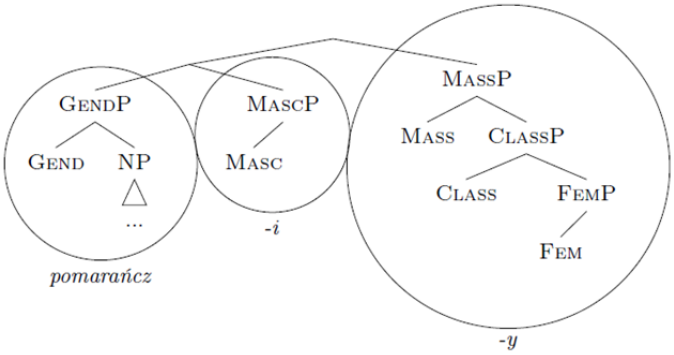


(98)



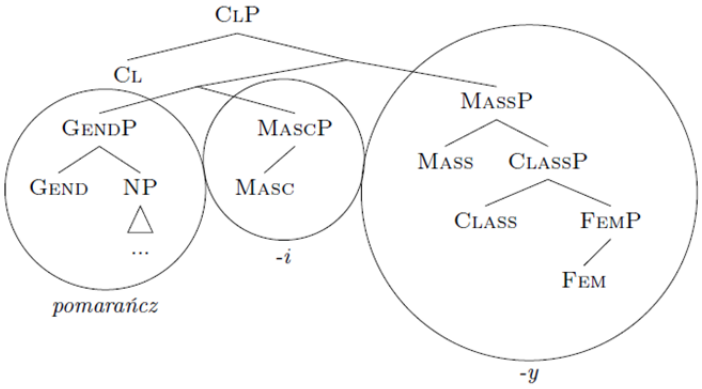

The very same steps are followed after merging Mass resulting again in *pomarańcz*, *-i* and *-y* in (99).

(99)

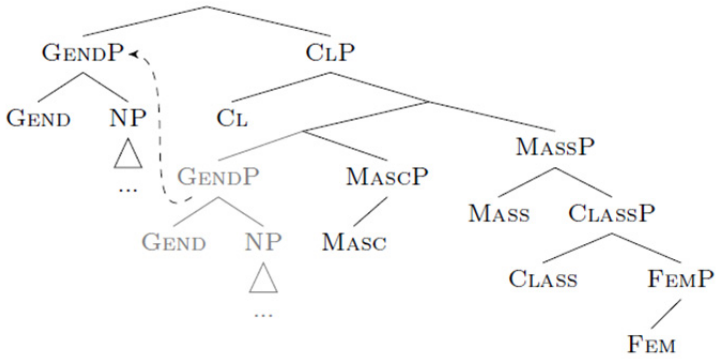



With merging the next feature, Cl, (100), evacuation of GendP is required, (101), leading to *pomarańcz* and *-y*, (102). This step brings the derivation to the target suffix *-y*, which structurally subsumes the previous lexicalizations.

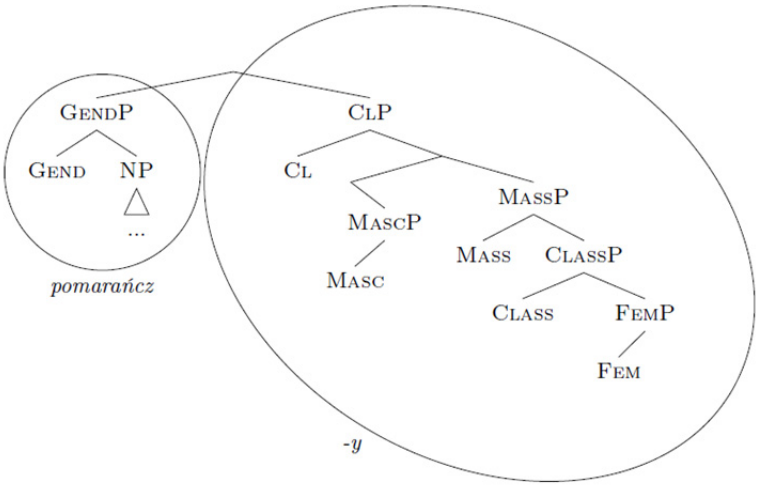
(100)




(101)

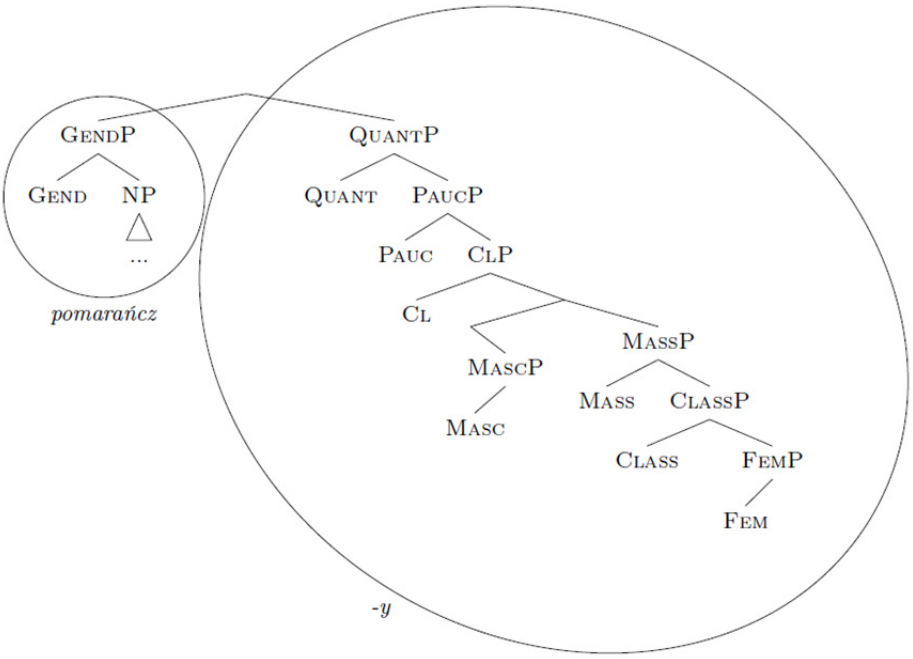


(102)




The same steps are applied, i.e., merging PAUC and evacuation of GENDP and merging QUANT and evacuation of GENDP, leading to the structure of the noun in the high-counting phrase *pięć pomarańcz-y* 'five oranges', (103):

(103)




This section showed the solution to ABA as it is the most complex pattern with no adjacent syncretism. It challenges the theory as *-y* appears in the pseudo-partitive and the high-counting contexts overlapping the low-counting phrases, where *-e* appears.

## 4. Conclusions

This paper has explored the syncretism patterns in Polish pseudo-partitive and counting phrases, using Nanosyntax to analyze the structure of the nouns. Regarding suffixes, three syncretism patterns occur: AAB, ABC and ABA.

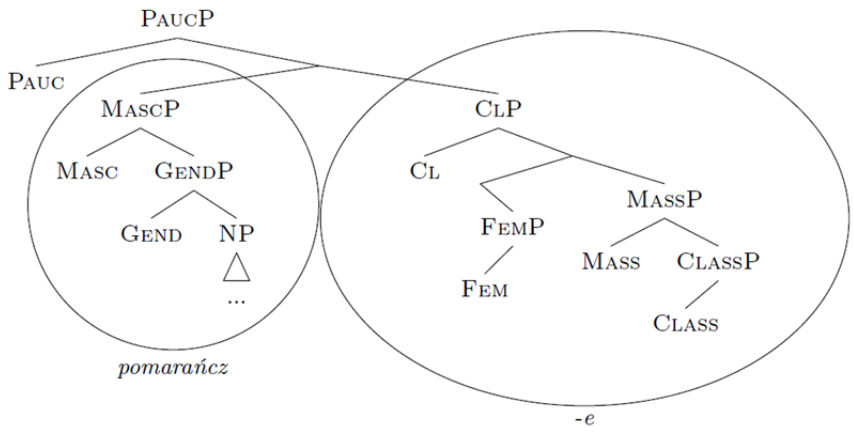
AAB and ABC align with expectations of adjacent syncretism, where morphological markers distinguish between pseudo-partitive, low-counting, and high-counting phrases. ABA, however, challenges theoretical assumptions about its unattested nature (*ABA), offering evidence of its systematic occurrence in the Polish feminine declension. This finding not only validates the potential of *ABA configurations but also underscores the importance of structural hierarchies in determining syncretism patterns.

The use of the Lexicalization Algorithm was instrumental in modelling the structure of each pattern. By merging features incrementally and applying rescue movements when necessary, the study demonstrated how Polish nouns adopt specific suffixes to accommodate pseudo-partitive, low-counting, and high-counting contexts. The analysis also highlighted the role of features like MASS, CL, PAUC, and QUANT in shaping the structural and functional distinctions across these phrases.

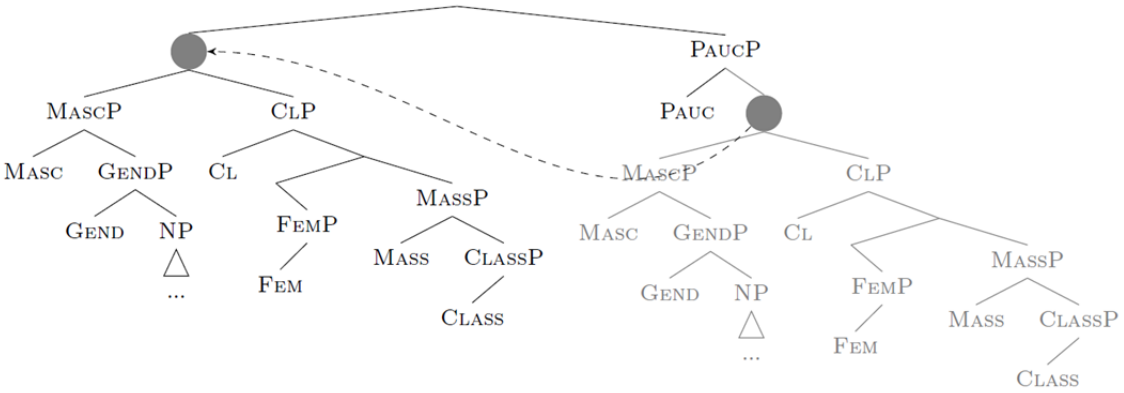
## Appendix: ABA backtracking

This section examines the backtracking after merging QUANT, (86), due to the failure of rescue movements to aid lexicalization. Initially, when PAUC is merged, (104), the subsequent operation involves pied-piping, (105).

(104)

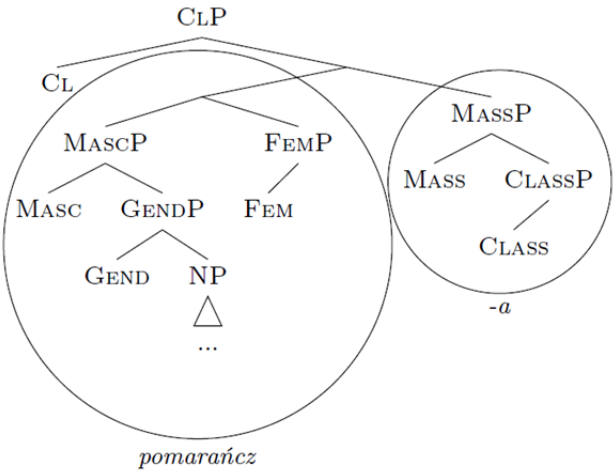



(105)



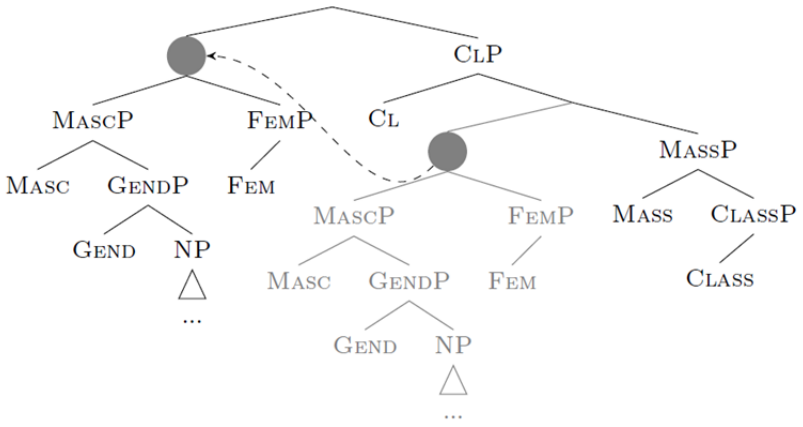

Since pied-piping does not lead to a successful lexicalization, backtracking becomes necessary beginning by returning to the point of merging CL, (106).

(106)



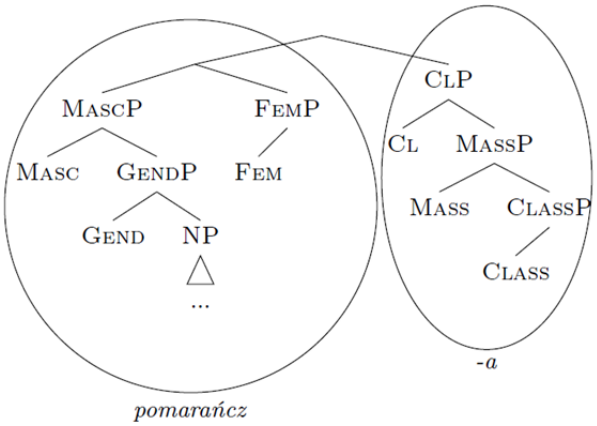

At this stage, pied-piping is made, (107), instead of evacuation, (101).

(107)

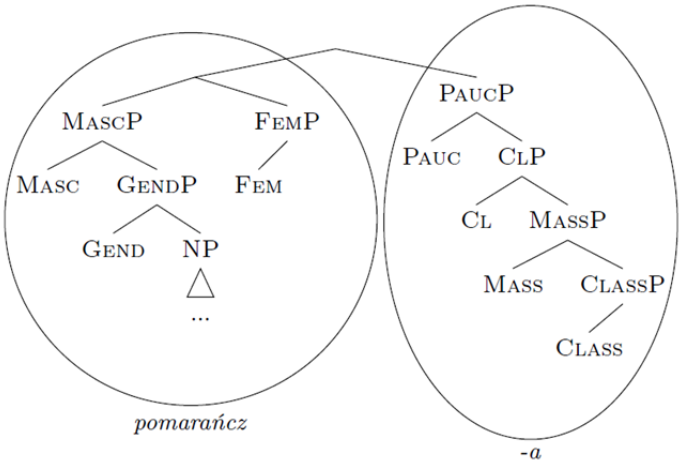



As shown in (108), the structure can be lexicalized as *pomarańcz* and *-a*. Lexicalization remains possible until PAUC is merged, (109), but fails with the addition of QUANT, (110).

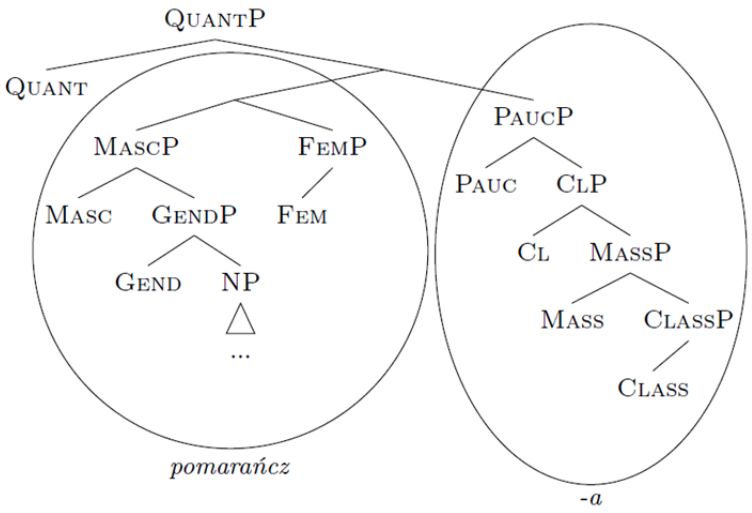
(108)



(109)

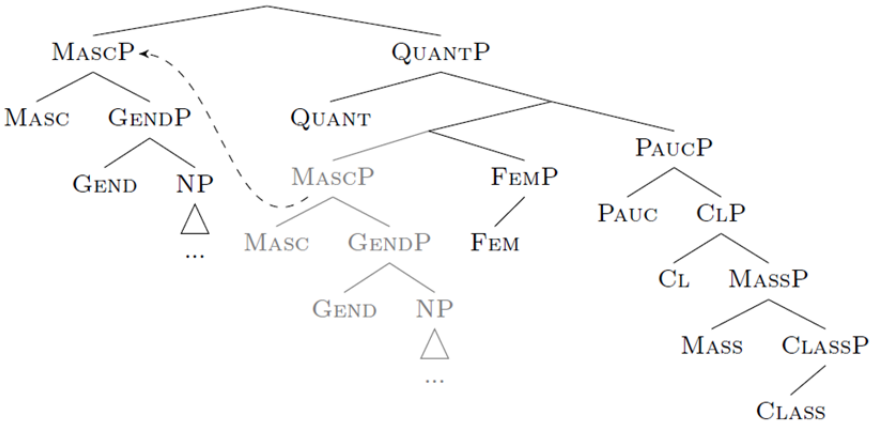



(110)

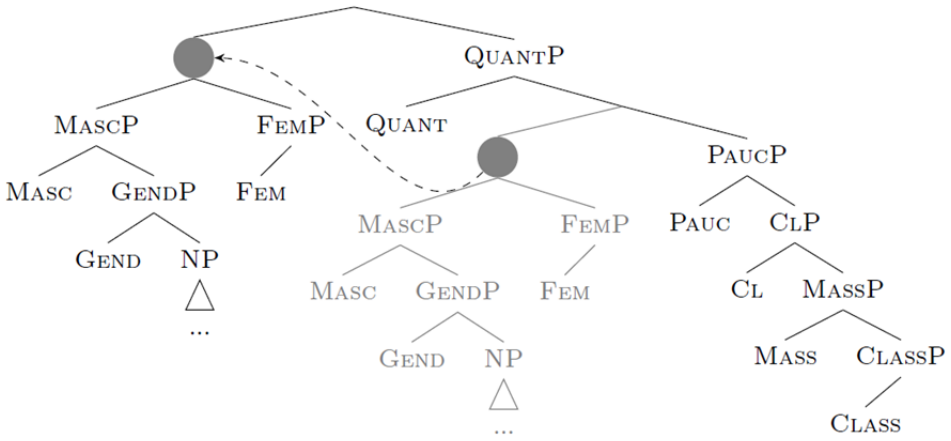



The rescue movements, (111), (112) and (113), fail to rescue the derivation, thus backtracking to merging PAUC is required, (114).

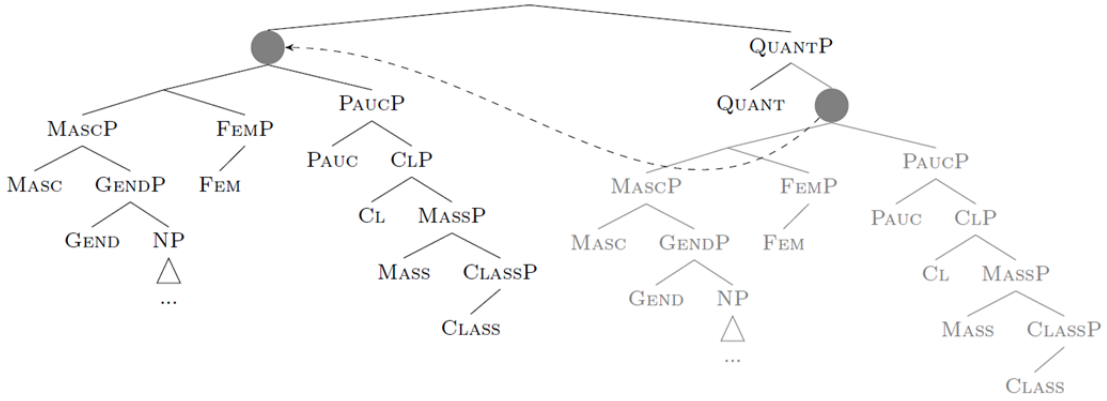
(111)



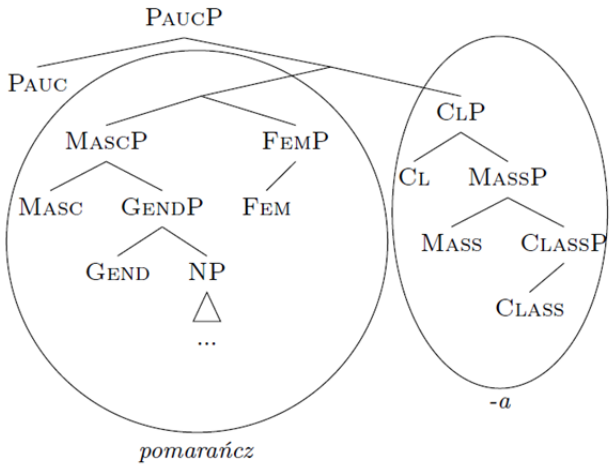
(112)




(113)

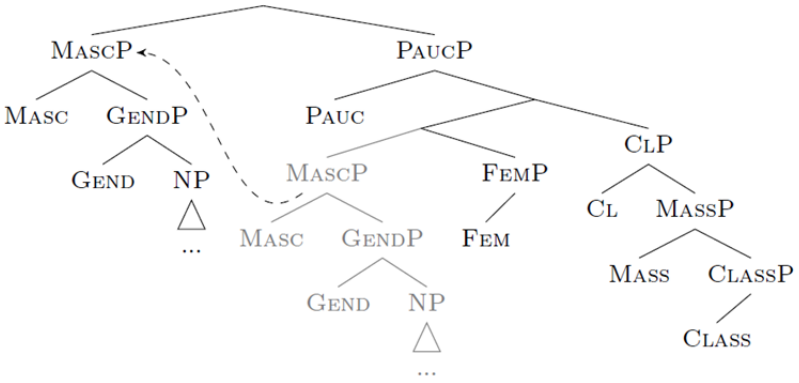



(114)

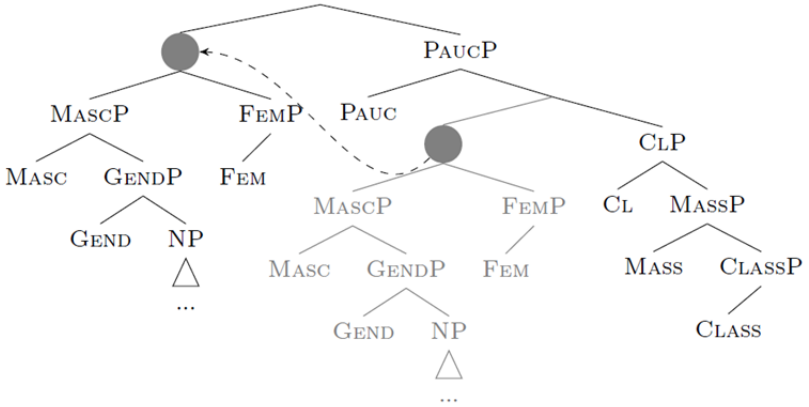



Even after backtracking to Pauc, the derivation cannot be rescued, (115), (116) and (117), necessitating further backtracking to merging Cl, (118).

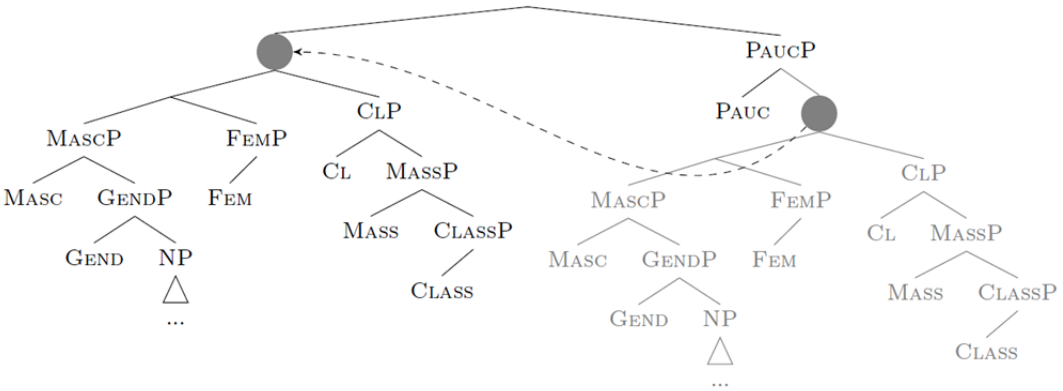
(115)



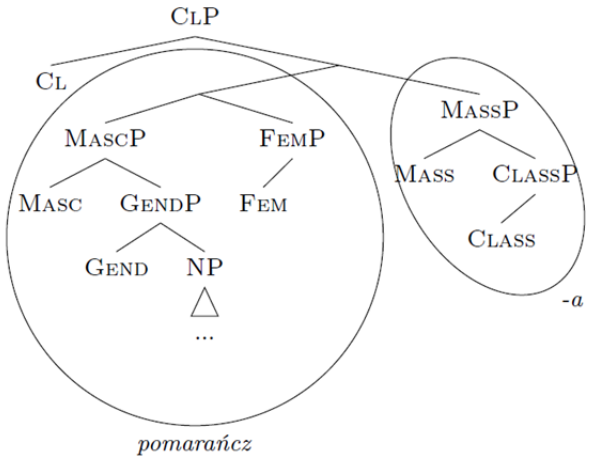

(116)




(117)

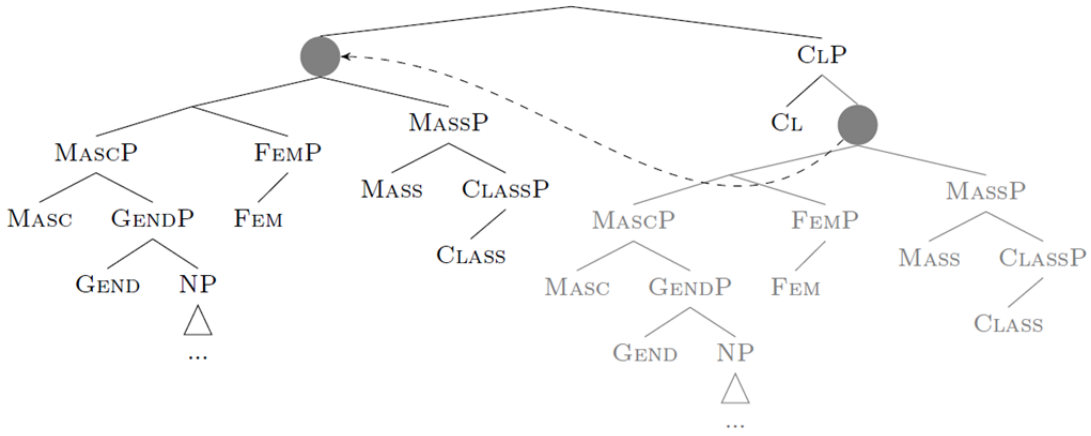



(118)



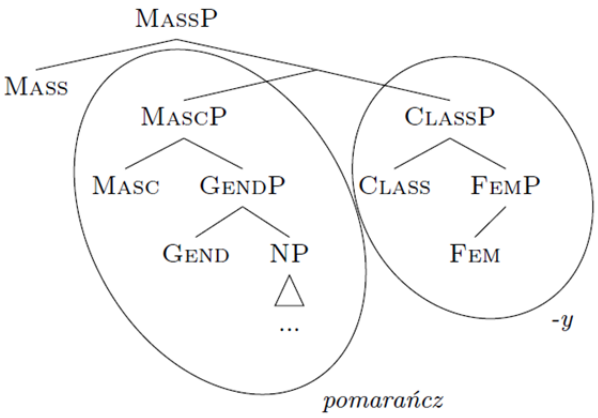
At this point, pied-piping, previously executed in (107), is revisited. Despite its recursive nature, an additional instance of pied-piping is performed, (119). However, even this repeated operation does not succeed in resolving the derivation.

(119)

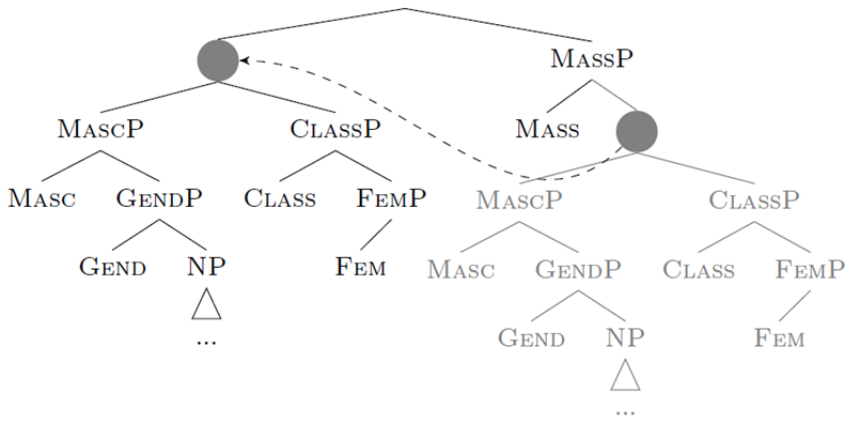



Thus backtracking to merging Mass is required, (120), and the next step is also pied-piping, (121), which does not help with the lexicalization.

(120)




(121)




Consequently, more backtracking is needed, i.e., to merging Class. The problem now is that all the options for Class have been tried (evacuation in (70) and pied-piping in (79)), thus backtracking to merging Fem is triggered with the same effect (evacuation in (64), pied-piping was not possible). The next step is to backtrack to merging Masc as shown in (89).

## References


Allan, K. 1977. Classifiers. *Language* 53(2): 285–311. https://doi.org/10.1353/lan.1977.0043.

Bielec, D. 1998. *Polish: An essential grammar*. London/New York: Routledge.

Blix, H. 2021. Phrasal spellout and partial overwrite: On an alternative to backtracking. *Glossa: A Journal of General Linguistics* 6(1): 1–17. https://doi.org/10.5334/gjgl.1614.

Bobaljik, J. 2012. *Universals in comparative morphology: Suppletion, superlatives, and the structure of words*. Cambridge, MA: The MIT Press.

Borer, H. 2005. *In name only*. Oxford: Oxford University Press.

Bultnick, B. 2005. *Numerous meanings: The meaning of English cardinals and the legacy of Paul Grice*. Antwerp: Antwerp University Association.

Caha, P. 2009. *Nanosyntax of case* [Doctoral dissertation, University of Tromsø].

Caha, P. 2022. The marking of mass, count, and plural denotations in multi-dimensional paradigms. *Studia Linguistica* 76: 212–274. https://doi.org/10.1111/stul.12183.

Caha, P., K. De Clercq, M. Starke, and G. Vanden Wyngaerd. 2023. Nanosyntax: State of the art and recent developments. In P. Caha, K. De Clercq, and G. Vanden Wyngaerd (eds.), *Nanosyntax and the Lexicalization Algorithm* (forthcoming). Oxford: Oxford University Press. Available at https://ling.auf.net/lingbuzz/007744.

Cinque, G., and L. Rizzi. 2008. The cartography of syntactic structures. In V. Moscati (ed.), *CisCL working papers on language and cognition* 2: 43–59. Siena: University of Siena, distributed by MIT Working Papers in Linguistics.

Corbett, G. 1991. *Gender*. Cambridge: Cambridge University Press.

Corbett, G. 1993. The head of Russian numeral expressions. In G. Corbett, N. Fraser, and M. Scott (eds.), *Heads in grammatical theory*, 11–35. Cambridge: Cambridge University Press.

Cortiula, M. 2023. The nanosyntax of Friulian verbs: An analysis of the present and past in Tualis Friulian. [Doctoral dissertation, Masaryk University, Brno].

Falco, M., and R. Zamparelli. 2019. Pseudo-partitives and partitivity. *Glossa: A Journal of General Linguistics* 4(1): 1–49.

Franks, S. 1994. Parametric properties of numeral phrases in Slavic. *Natural Language & Linguistic Theory* 12: 597–674.

Franks, S. 1995. Quantified structures: Russian versus Serbo-Croatian. In *Parameters of Slavic Morphosyntax*, 93–129. Oxford: Oxford University Press.

Harbour, D. 2014. Paucity, abundance, and the theory of number. *Language* 90(1): 185–229.

Jakobson, R. 1984. *Russian and Slavic grammar: Studies, 1931-1981* (L. Waugh and M. Halle, eds.). Berlin: Mouton Publishers.

Janků, L. 2022. *The nanosyntax of Czech nominal declension* [Doctoral dissertation, Masaryk University].

Janků, L., and M. Starke. 2019. Gender meets nano. [Accessed: 2024-12-12]. https://michal.starke.ch/talks/nanolab/#talkTitle.

Kayne, R. S. 2005. *Movement and silence*. Oxford: Oxford University Press.

Kiparsky, P. 1973. 'Elsewhere' in phonology. In S. Anderson and P. Kiparsky (eds.), *A festschrift for Morris Halle*, 93–106. New York: Holt, Rinehart & Winston.

Krifka, M. 1992. Thematic relations as links between nominal reference and temporal constitution. In I. A. Sag and A. Szabolcsi (eds.), *Lexical Matters*, 29–53. Stanford, CA: CSLI Publications. https://web.stanford.edu/group/cslipublications/.

Middleton, H. J. 2020. *ABA syncretism patterns in pronominal morphology* [Doctoral dissertation, University College London].

Nesset, T. 2019. Big data in Russian linguistics? Another look at paucal constructions. *Zeitschrift für Slawistik* 64(2): 157–174. https://doi.org/10.1515/slaw-2019-0012.

Pesetsky, D. 2013. *Russian case morphology and the syntactic categories*. Cambridge, MA: The MIT Press.

Rothstein, S. 2010. Counting and the mass/count distinction. *Journal of Semantics* 27(3): 343–397.

Rothstein, S. 2017. *Semantics for counting and measuring* [Accessed via user-provided file]. Cambridge: Cambridge University Press. https://doi.org/10.1017/9780511734830.

Scheer, T. 2012. Variation is in the lexicon: Yer-based and epenthetic vowel-zero alternations in Polish. In E. Cyran and H. Kardela (eds.), *Sound, structure and sense: Studies in memory of Edmund Gussmann*, 631–672.

Starke, M. 2009. *Nanosyntax: A short primer to a new approach to language*. In P. Svenonius, G. Ramchand, M. Starke, and T. Taraldsen (eds.), *Nordlyd 36: Special issue on Nanosyntax*, 1–6.

Starke, M. 2018. Complex left branches, spell-out, and prefixes. In P. Caha, K. De Clercq, and G. Vanden Wyngaerd (eds.), *Exploring Nanosyntax*, 239–249. Oxford: Oxford Studies in Comparative Syntax.

Žoha, L. 2025a. Partitives, countability, and syncretism in Czech morphosyntax. Paper presented at the Olomouc Linguistics Colloquium (Olinco), Olomouc, Czech Republic. Retrieved from https://sites.google.com/view/zohalukas/research?authuser=0.

Žoha, L. 2025b. Nanosyntactic explanation of syncretism in Polish pseudo-partitive and counting contexts. Paper presented at the SlavLingColl 2025. Retrieved from https://sites.google.com/view/zohalukas/research.

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