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ALTERNATIONS IN THE ROMANIAN VERB PARADIGM
ANALYZING THE INDICATIVE PRESENT

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1. INTRODUCTION. TRADITIONAL CONJUGATIONAL CLASSES FOR ROMANIAN

Traditionally, Romanian has received a Latin-inspired classification of verbs into 4 (or sometimes 5) conjugational classes based on the ending of their infinitival form. However, this infinitive-based classification proves itself inadequate in describing and accounting for the irregularities in the paradigm, for the alternations and syncretisms that occur. There have been, thus, numerous attempts throughout the history of Romanian linguistics to give other conjugational classifications based on the way the verb actually conjugates.

Lombard (1955), looking at a corpus of 667 verbs, combined the traditional 4 classes with the way in which the biggest two subgroups conjugate (one using the suffix *–ez*, the other *–esc*) and arrived at 6 classes. Ciompec et al. (1985 in Costanzo 2011) proposed 10 conjugational classes, while Felix (1964) proposed 12, both of them looking at the inflection of the verbs and number of allomorphs of the stem. Guțu-Romalo (1968), analyzing a corpus of over 400 verbs, produced a list of 38 conjugational ending sequences, which she reduced to 10 conjugational classes.

For the purpose of machine translation, Moisil (1960) proposed 5 regrouped classes of verbs, with numerous subgroups, and introduced the method of letters with variable values, while Papastergiou et al. (2007) have developed a classification of Romanian verbs in the indicative present from a (second) language acquisition point of view, dividing the 1st and 4th traditional classes into 3 and respectively 5 subclasses, each with a different conjugational pattern, and offering rules for alternations in the stem.

Of the more extensive classifications, Barbu (2009) distinguished 41 conjugational classes for all tenses and 30 for the indicative present alone, covering a whole corpus of over 7000 contemporary Romanian verbs, a corpus which was also used by Dinu et al. (2012). Her classes were developed only on the basis of the different conjugational endings, and the classification system did not take into account the alternations occurring in the stem, while Dinu et al. (2012)'s experiment took into account both stem alternation and ending sequences when modeling their 30 conjugational rules which they used to label their dataset. Finally, Feldstein (2004), attempting to account for the syncretism between grammatical desinences of two different paradigmatic slots displayed by Romanian, proposed a three-fold

segmentation of Romanian conjugational endings and identified a small number of rules for the derivation of conjugated forms.

In what follows, I will look at both the traditional and modern analyses, and attempt to give accounts for the occurring alternations and seeming richness of the paradigm. Since Romanian verbs have different forms to express mood, tense, person, number, gender, and voice, to simplify the analysis, I will limit the discussion to the conjugation of Romanian verbs in the indicative present.

1.1 Latin inspired (infinitive-based) classification

As is the case for other Romance language, Romanian verbs have been traditionally classified into 4 conjugational classes, which correspond to the ones in Latin, as noted by Tiktin (1905: 98), and are based on the theme vowel surfacing as the final vowel of the (present) infinitive form, Costanzo (2011: 96). Table 1 below compares the Latin conjugational classes with Romanian.

	Infinitive ending			
	I	**II**	**III**	**IV**
Latin	-ĀRE	- ĒRE	-ERE	- ĪRE
Romanian	-a	-ea	-e	-i

Table 1. Conjugational classes in Latin and Romanian

Beside the verbs which end in one of these four theme vowels, Romanian also has a number of verbs whose infinitive ends in *–î*. Since their conjugation is distinct but argueably predictable from that of the verbs in the 4th class, Tiktin (1905: 98), Lombard (1955), and others have traditionally taken these verbs to be part of the 4th conjugation. Others, however, have argued for a separate analysis and postulated a 5th class designed specifically for them. Costanzo (2011: 97), for instance, argues that the split of *–i* and *–î* verbs into different classes can be justified, due to the predictability of the conjugational pattern of *–î* verbs from *–i* verbs relying on Latin and phonology, but unneccessary. The table below gives examples of verbs from each of the four traditional Romanian conjugational classes.

Class	Theme vowel	Examples
I	-a	*cit**a*** ‘quote”, *invit**a*** ‘invite’, *mânc**a*** ‘eat’, *parc**a*** ‘park’
II	-ea	*av**ea*** ‘have’, *b**ea*** ‘drink’, *ved**ea*** ‘see’, *vr**ea*** ‘want’
III	-e	*bat**e*** ‘beat’, *cred**e*** ‘believe’, *fac**e*** ‘do’, *merg**e*** ‘walk’
IV	-i/ -î	*cit**i*** ‘read’, *vorb**i*** ‘speak’, *hotărî* ‘decide’, *omorî* ‘kill’

Table 2. The traditional conjugational classes in Romanian

The first conjugation is the richest and most productive, Avram (2001: 199), followed in second place by the fourth conjugation (except the relatively small group of verbs ending in *–î*, which is unproductive). When new verbs are created or borrowed into the language, these two classes are the only ones which will accept them Constantinescu-Dobridor (2001: 143). The second and third conjugations are limited to verbs inherited from Latin or Romance neologisms and are unproductive, with the second class being the smallest of the four and appearing to die out, Constantinescu-Dobridor (2001: 142). Specifically, a migration phenomenon in Romanian has been noted by several linguists of verbs from the second conjugation which have acquired a third conjugation variant, as shown in (1) and (2):

(1) **Diachronic transitions from II to III**

*a rămân**ea*** (<lat. remaneo) -> *a rămân**e*** ‘to remain’

*a ț**ea*** (<lat. teneo) -> *a ț**e*** ‘to hold’

*a umpl**ea*** (<lat. impleo) -> *a umpl**e*** ‘to fill’

(2) **Transitions from II to III not yet accepted in Standard Romanian**

*a păr**ea*** -> *a par**e*** ‘to seem, to appear’

*a încăp**ea*** -> *a încap**e*** ‘to fit’

*a plăc**ea*** -> *a plac**e*** ‘to like’

*a (pre)ved**ea*** -> *a (pre)ved**e*** ‘to (for)see’

*a (s)căd**ea*** -> *a (s)cad**e*** ‘to (decrease/ subtract) fall’

*a tăc**ea*** -> *a tac**e*** ‘to shut up’

These transitions are natural and due to analogies and identical forms (i.e. the 1sg form *eu tac* ‘I shut up’ of the verb *a tăcea* is identical to *eu fac* ‘I do’ of the verb *a face*). Another already accepted migration, as observed by Avram (2001:199), is of verbs from the third conjugation which are today accepted to be first conjugation

verbs (3). Some verbs from the third conjugation have recently acquired a first conjugation variant which is however not yet accepted (4). A final accidental transition, which is not accepted, can be noticed of fourth conjugational verbs toward the third conjugation (5).

(3) **Diachronic transition from III to I**

*a decern**e*** -> *a decern**a*** ‘to award’

*a preced**e*** -> *a preced**a*** ‘to precede’

*a succeed**e*** -> *a succed**a*** ‘to succeed (smth.)’

(4) **Accidental transition from III to I not yet accepted**

*a acced**e*** -> *a acced**a*** ‘to accede (to)’

*a conced**e*** -> *a conced**a*** ‘to concede’

(5) **Accidental transition from IV to III not accepted**

*a auz**i*** -> *a aud**e*** ‘to hear’

*a absorb**i*** -> *a absoarb**e*** ‘to absorb’

*a împărț**i*** -> *a împart**e*** ‘to divide’

For the purpose of actually conjugating Romanian verbs, the four conjugational classes act as guidelines which say what the standard ending pattern for a verb in that particular class is. However, these classes say nothing about alternations which may occur in the stem or in the ending during conjugation, as we will see further. According to Papastergiou et al. (2007: 1) probably the most notoriously difficult Romanian tense to learn as a foreign speaker is the indicative present. Table 3 shows the standard ending patterns for each conjugational class, Avram (2001: 218).

Person	**I**	**II**	**III**	**IV**	
Number	***–a***	***–ea***	***–e***	***–i***	***–î***
1 sg	–	–	–	–	–
2 sg	*–i*	*–i*	*–i*	*–i*	*–i*
3 sg	*–ă*	*–e*	*–e*	*–e*	*–ă*
1 pl	*–(ă)m*	*–(é)m*	*–(e)m*	*–(i)m*	*–(î)m*
2 pl	*–(a)ți*	*–(é)ți*	*–(e)ți*	*–(i)ți*	*–(î)ți*
3 pl	*–ă*	–	–	–	*–ă*

Table 3. Standard ending patterns

A final thing to note is that verbs of the type *a împerechea* 'to pair', *a veghea* 'to watch over', *a iniția* 'to initiate' are considered part of the first class, due to them exhibiting the theme vowel *a* during conjugation: 2 pl. form of *împerechea* is *împerechea**ț**i* and of *iniția* is *iniți**a**ți*.

1.2 Additional subclasses for stem extensions [ez] and [esk].

Apart from the standard ending patterns (and their variants which will be discussed in another chapter), Romanian has two different classes of variable functional infixes, [ez] and [esk], which attach to the stem of the verb before the ending (desinence), as observed by Guțu-Romalo (1968: 151), Chițoran (2002a: 34), Feldstein (ND: 9), and others. In the Romanian verbal domain, the infix [ez] attaches to first conjugation verb stems, while [esk] attaches to fourth conjugation verb stems, surfacing in two variants: *-esc-* for verbs having the theme vowel *–i* and *-ăsc-* for verbs having the theme vowel *–î*. The affix [ez] was inherited from the Latin *-IDI-*, while [esk] from the Latin *-ĪSC-*/*-ĒSC-*, Costanzo (2011: 92). In Latin, when the *-ĪSC-*/*-ĒSC-* affix was attached to a verb it had an inceptive function (verb + [ESC] = to start verbing), however, this function was lost in Romanian. In the nominal domain, on the other hand, the function of [ESC] added to a noun (that of suggesting something prototypical of that noun) has been preserved in Romanian.

As stated previously, [ez] and [esk] are variable infixes, meaning they vary with person and number, giving birth to different conjugational patterns for those first and fourth conjugational verbs which receive these infixes. However, a separation between the inflected (for person and number) form of the infix and the desinence can be made, and, once it is, it becomes apparent that the desinence pattern which this assumed separate group of verbs takes is the same as the one taken by verbs which do not receive the infixes. Because of this, many linguists studying Romanian verbs have extended the traditional ending pattern to the one collected in Table 4 from Avram (2001: 218), where the classes of verbs taking either [ez] or [esk] are considered subclasses of the 1st and 4th classes. Unlike this extended traditional analysis presented in Table 4, Lombard (1974) and Lombard and Gâdei (1981), propose six conjugations, where the two traditional subclasses of the traditional 1st and 4th conjugations are considered separate classes, while the *-i* and *-î* subclasses are collapsed.

Person & Number	**I** ***–a***		**II** ***–ea***	**III** ***–e***	**IV**			
					–i		***–î***	
	–ez	***+ez***			***–esc***	***+esc***	***–ăsc***	***+ăsc***
1 sg	–	*–ez*	–	–	–	*–esc*	–	*–ăsc*
2 sg	*–i*	*–ezi*	*–i*	*–i*	*–i*	*–ești*	*–i*	*–ăști*
3 sg	*–ă*	*–eză*	*–e*	*–e*	*–e*	*–ește*	*–ă*	*–ăște*
1 pl	*–(ă)m*	*–(ă)m*	*–(é)m*	*–(e)m*	*–(i)m*	*–(i)m*	*–(î)m*	*–(î)m*
2 pl	*–(a)ți*	*–(a)ți*	*–(é)ți*	*–(e)ți*	*–(i)ți*	*–(i)ți*	*–(î)ți*	*–(î)ți*
3 pl	*–ă*	*–eză*	–	–	–	*–esc*	*–ă*	*–ăsc*

Table 4. Standard ending patterns with [ez] and [esk]

The class of verbs to which [ez] attaches (from here on *+ez*) is the largest according to the quantitative results obtained by Dinu et al. (2012: 327), the second largest being that of verbs receiving *–esc* (and not *–ăsc*). These two groups, *+ez* and *+esc*, are usually the groups where newly created or borrowed verbs are included, according to Avram (2001: 199), although which of the two infixes a neologism receives is not a clear cut phenomenon, and competing variants coexist in the contemporary language, observes Costanzo (2011: 116).

1.3 Disadvantages of an infinitive-based classification. Transition to finer-grained classifications

If we take conjugational class to mean a conjugational pattern which is followed by all verbs pertaining to that class in the **exact** same way, as Costanzo (2011: 19) does, and if we then turn to analyze Romanian verb paradigms, we inevitably end up seeing that only four (in the traditional classification) or eight (in the extended traditional) classes are far from describing this verbal inflectional system in its entirety.

On the one hand, the ending patterns, listed in Table 4 of the previous subsection and representing the extended traditional conjugational classification, are not all the patterns which occur in the Romanian verbal domain. For instance, shown in Table 5, the verbs *a copia* ‘to copy’, *a da* ‘to give’, *a bea* ‘to drink’ *a scrie* ‘to write’, and *a oferi* ‘to offer’, although belonging to one of the four traditional classes,

based on their infinitive, do not conjugate exactly according to any of the patterns displayed by these classes in Table 4.

a copia	***a da***	***a bea***	***a scrie***	***a oferi***
*copi**ez***	*da**u***	*bea**u***	*scri**u***	*ofer*
*copi**ezi***	*da**i***	*be**i***	*scri**i***	*ofer**i***
*copi**ază***	*d**ă***	*bea*	*scrie*	*ofer**ă***
*copi**ăm***	*d**ăm***	*b**em***	*scri**em***	*ofer**im***
*copi**ați***	*d**ați***	*b**eți***	*scri**eți***	*ofer**iți***
*copi**ază***	*da**u***	*bea**u***	*scri**u***	*ofer**ă***

Table 5. More conjugational patterns

On the other hand, Romanian has quite a rich inflectional morphology, which means that it certainly does not contain only regular verbs. There are plenty of verbs which display alternations in the stem (stem allomorphy), meaning that their stem surfaces differently throughout the paradigm. Guțu-Romalo (1968: 272) divides verbs according to stem alternation into 4 classes: verbs with invariable stem (regular), verbs with partially variable stem (partially irregular), verbs with partially aberrant variation in the stem, and verbs which display suppletive allomorphy (irregular), the largest of these four classes being the first two. A good thing about verbs which have partially variable stem is that their alternation can be predicted phonologically something which will be discussed in the following chapters. Table 6 below displays an example for each of these classes of verbs.

Type of stem	**Infinitive form**	**Indicative present conjugation**
invariable	*a dansa* 'to dance'	***dans**-ez*, ***dans**-ezi*, ***dans**-ează*, ***dans**-ăm*, ***dans**-ați*, ***dans**-ează*
partially variable	*a tresălta* 'to start/exult'	*tresalt*, *tresal**ț**i*, *tresaltă* *tres**ă**ltăm*, *tres**ă**ltați*, *tresaltă*
partially aberrant	*a mânca* 'to eat'	*măn**â**nc*, *măn**â**nc-i*, *măn**â**nc-ă* *mânc-ăm, mânc-ați, măn**â**nc-ă*
suppletive	*a avea* 'to have'	*am*, *ai*, *are*, *avem*, *aveți*, *au*

Table 6. Classification according to stem variation

Another reason to consider the traditional classification as being under-informative is pointed out by Feldstein (2004), and has to do with syncretism patterns within paradigms, namely, the fact that verbs from the same conjugation display different syncretism patterns. This is exemplified in Table 7.

Infinitive	**1sg**	**2sg**	**3sg**	**1pl**	**2pl**	**3pl**
*invit**a*** 'invite'	*invit*	*invi**ț**i*	***invită***	*invităm*	*invitați*	***invită***
*tăi**a*** 'cut'	*tai*	*tai*	*taie*	*tăiem*	*tăiați*	*taie*
*d**a*** 'give'	*dau*	*dai*	*dă*	*dăm*	*dați*	*dau*

Table 7. Different syncretism patterns in the same conjugation

These facts show that a classification of Romanian verbs only according to theme vowel (which surfaces in the infinitive "dictionary" form as the final vowel) is insufficiently descriptive of their paradigms. The contemporary data, collected by Barbu (2009) and analyzed from a computational point of view by Dinu et al. (2012), strengthens previous linguistic analysis according to which a simple inventory of paradigms is unproductive and near impossible to make, and shows that new or more criteria need to be added in the classification of Romanian verbs. In what follows, finer grained classifications along with their criteria will be presented and analyzed from a theoretical point of view.

2. MODERN APPROACHES

2.1 Guțu-Romalo's structural analysis

As touched upon in the first chapter, Romanian has a rich inflectional morphology. This richness burdens morphology acquisition for a foreign learner but also burdens a linguistic attempt to describe the system and find the right criteria to classify it. The structural analysis of Guțu-Romalo (1968: 275) has shown that the verbal inflectional system is arguably more complex than the nominal one. Her study looked at over 400 verb paradigms and classified them based on their stress pattern, endings pattern, and stem allomorphy.

After she analyzed the affixes attached to the stem and created a large inventory of ending patterns, she attempted to extract a conjugational classification, reducing the 38 identified sequences to 10 conjugational classes, based on several types of homonymy between the affix sequences. She then analyzed stem alternations and attempted to unify her conclusions about stress, conjugational class, and stem alternation in the Romanian verbal domain under one "paradigmatic classification". Let us go through her structural analysis and see how this was obtained.

2.1.1 Stress shift in Romanian verbs

She first argues that the study of stress placement and movement in the Romanian verbal domain should precede any analysis regarding stem alternations and ending patterns. According to her, stress may fall either on the stem or on the ending, having enough mobility to shift from one part to the other within the same paradigm, Guțu-Romalo (1968: 152). When stem and ending are taken globally, the author identifies three stress patterns for the indicative present:

A. stress falls on the stem for the 1st, 2nd, and 3rd person singular and 3rd person plural, and shifts on the ending for 1st and 2nd person plural;
B. stress is maintained on the stem for all forms
C. stress is maintained on the ending for all forms

She claims that A applies to verbs whose infinitives end in *–a*, *–ea*, *–i*, and *–î*, B applies to verbs ending in *–e*, and C applies to verbs ending in *–a* (+*ez*), *–i* (+*esc*), and *–î* (+*ăsc*). However, monosyllabic verbs like *a da*, which don't have where to shift the stress since they don't acquire another syllable when conjugated in the indicative present, seem to fit, stress pattern wise, either under C or B (depending on what

analysis of constitutive parts they receive), although they don't respect the conditions proposed by Guțu-Romalo for this classification. In (6), *a da* 'to give' and *a lua* 'to take' are conjugated in the indicative present with phonological representations.

(6) ***a da***	***a lua***
[daw]	[jaw]
[daj]	[jej]
[də]	[ja]
[dəm]	[lwəm]
[dats^{j}]	[lwats^{j}]
[daw]	[jaw]

Example (6) shows that an analysis of a verb's constitutive parts also needs to come into play when describing stress placement and stress mobility and that there are definitely examples of verbs which do not follow Guțu-Romalo's general classification of verbal stress pattern.

When stem and ending are not monosyllabic, and when the stress falls on the stem, Guțu-Romalo (1968: 156) claims that, for trisyllabic stems, the stress can either fall on the final or penultimate syllable, but never on the first syllable. For disyllabic stems, the stress can fall on either of the two syllables. According to her study, the most numerous are verbs with bisyllabic final stressed stem. Chițoran (2002a: 56) further notes that, out of the 803 basic verbs counted by Juilland et al. (1965), penultimate stress on the stem (root) occurs only in 81 verbs, with 62 belonging to the first conjugation and 16 to the fourth, which leads her to analyze these verbs as lexically marked exceptions.

When the stress falls on the ending, presupposing that it is phonetically realized (meaning a non-zero morpheme), it always falls on the first syllable, if it is bisyllabic (it can at most be bisyllabic). Chițoran (2002a: 57-58), on the other hand, takes the theme vowel and the affixes *–ez* and *–esc* to be part of the stem, thus finding that the prosodic word has nothing to do with verb inflection, due to stress never falling on the inflectional ending, but falling either on the theme vowel, *–ez* or *–esc*, when they are expressed, or on the final/ penultimate syllable of the stem, when they are not expressed. This interpretation contradicts Guțu-Romalo (1968: 157)'s statement according to which, when the stem is stressed, the stress will always stay on the same syllable, exemplified in (7), where the stem is between square brackets.

(7) a. **Guțu-Romalo (1968: 144)'s segmentation:**

[*spéri*]-*i̯* sau [*spér*]- *i̯*

[*spéri*]-*i̯* sau [*spér*]- *i̯*

[*spér*]- *i̯e*

[*sper*]- *i̯ém*

[*sper*]- *i̯átsi*

[*spér*]- *i̯e*

b. **Chițoran (2002a: 55)'s segmentation:**

[*adún*]-(*u*)

[*adún*]-^{j}

[*adún*]-*ə*

[*adun-ə́*]-*m*

[*adun- á*]-*ts*^{j}

[*adún*]-*ə*

Due to differences in segmentation, the stem in (7a) looses main stress in favor of the ending for the 1st and 2nd person plural, but when the stem is stressed it's always stressed on the same syllable. In (7b), however, stress remains on the final syllable of the stem, shifting together with the final syllable, which changes for the 1st and 2nd person plural. As was the case with example (6), we once again see that the analysis of stress placement and stress mobility in the Romanian verb is dependent on the analysis of its constitutive parts. Another thing to note is the different phonological interpretation of certain sounds, Guțu-Romalo not offering an account for her choice of representation for the final *i* in *sperii* 'I scare'.

Finally, Guțu-Romalo (1968: 156) identifies 4 classes of verbs based on which (of the three) types of stress mobility they have for each tense. For the indicative present, these 4 regroup into 3 classes quoted in the table below.

Class	**Stress pattern**	**Verbs ending in**
I	A	*-a, -î, -i, -e, -ea*
II	C	*-a* (*-ez*), *-i* (*-esc*), *-î*, (*-ăsc*)
III	B	*-e*

Table 8. Classification of verbs according to type of stress mobility

2.1.2 Affix inventory and ending patterns

As mentioned in the previous subsection, Guțu-Romalo (1968: 167) considers verbal inflectional endings to be composed of a *variable suffix*, which can be phonetically realized in up to 4 forms and is almost always realized for the 1st and 2nd person plural, and a *desinence* (which displays person and number) and attaches to this suffix, when it surfaces, or directly to the stem.

For the indicative present, she identifies a total of 15 types of suffixes, which are given in Table 9. For the desinences, Guțu-Romalo (1968: 169) takes each person and number and lists their phonetic realization, as gathered in Table 10. She attempts to combine the two lists in order to classify verbs based on inflectional patterns and identifies 38 ending sequences, Guțu-Romalo (1968: 195-197), which are reduced to 10 conjugational classes, Guțu-Romalo (1968: 203-205).

No.	Realization	Examples
1	[-ă̋, -*á*, *Ø*]	*ara* ‘plow’, *da* ‘give’, *săpa* ‘dig’, *sta* ‘stay’
2	[-i̯*á*, -i̯*é*, *Ø*]	*aprop**ia*** ‘bring near’, *mângâ**ia*** ‘caress’, *sper**ia*** ‘scare’
3	[-u̯*á*, -u̯ă̋, *Ø*]	*continua* ‘continue’, *lua* ‘take’
4	[-*á*, -ă̋, -*éz*, -e̯*áz*]	*lucra* ‘work’, *dansa* ‘dance’
5	[-*á*, -*é*, -*éz*, -*áz*]	*veghea* ‘guard’:
6	[-i̯*á*, -i̯*é*, -i̯*éz*, -i̯*áz*]	*sublinia* ‘emphasize’
7	[-*á*, -*é*, -*éz*, -e̯*áz*]	*crea* ‘create’
8	[-*í*, *Ø*]	*coborî* ‘descend’, *omorî* ‘kill’, *doborî* ‘knock off’
9	[-*î*, -ă̋*sc*, -ă̋*șt*]	*hotărî* ‘decide’, *urî* ‘hate’
10	[-*í*, *Ø*]	*fugi* ‘run’, *veni* ‘come’, *sui* ‘climb’
11	[-*í*, -*ésc*, -*éșt*]	*goni* ‘run’, *răpi* ‘kidnap’, *luci* ‘glitter’
12	[-*í*, -i̯*ésc*, -i̯*éșt*]	*alcătui* ‘form’, *construi* ‘construct’, *dărui* ‘gift’
13	[-*é*, *Ø*]	*vedea* ‘see’, *părea* ‘seem’
14	[-*e*, *Ø*]	*arde* ‘burn’, *prinde* ‘loose’, *rupe* ‘tear’, *scrie* ‘write’
15	[*Ø*]	*ști* ‘know’

Table 9. Guțu-Romalo’s verbal suffix series

As will be discussed in a following section, the disadvantage of an inventory as the one in Table 7 is that it seems to be based more on orthographical form, rather

than phonological form. As the author herself notes later on, Guțu-Romalo (1968: 200), some of the "suffix patterns" can be shown to derive, phonologically, from others, yet she never goes into specifying how. For instance, pattern 5 looks very much like 6, and, when the paradigm of the representing verb *a veghea* 'to watch (over)' is analyzed, it seems it would rather fit into pattern 6 than 5. The comparison between how the verb is written in Romanian and how the author segments and interprets its paradigm is shown in (8).

(8) ***a veghea*, orthographically:** **vs.** ***a veg'a*, where [g'] = ghe:**

*vegh**ez**, vegh**ez**-i, vegh**eaz**-ă* *veg'-**ez**, veg'-**ez**-i, veg'-**az**-ă*

*vegh**e**-m, vegh**ea**-ți, vegh**eaz**-ă* *veg'-**e**-m, veg'-**a**-ți, veg'-**az**-ă*

The author does mention the phonological context (preceding sound or syllable) in which each of these 15 patterns or sequences tend to appear, however, she never attempts to account phonologically for the selection of one pattern over another by a particular type of verb, although she does mention that in some cases the selection is phonological. Chițoran (2002a)'s segmentation (discussed in 2.1.1) seems to induce a smaller number of these so called suffix patterns. This will, however, be analyzed later.

Number	Person	Forms
Singular	1st	d_{11}=[-*Ø*], d_{12}=[-*i*], d_{13}=[-*u*], d_{14}=[-*w*], d_{15}=[-*m*]
	2nd	d_{21}=[-^{i}], d_{22}=[-*i*], d_{23}=[-*i̯*]
	3rd	d_{31}=[-*ă*], d_{32}=[-*uă*], d_{33}=[-*e*], d_{34}=[-*ie*], d_{35}=[-*Ø*]
Plural	1st	d_4=[-*m*]
	2nd	d_5=[- *ts*^{i}]
	3rd	homonymous with 1st or 3rd person singular forms

Table 10. Verbal desinences identified by Guțu-Romalo

Table 10 shows the various desinences gathered by the author from the corpus. For the second person singular and plural desinences, d_{21} and d_5, *i* is taken to be a non-syllabic realization of the phoneme *i*, which is known to cause palatalization in the preceding consonant, Chițoran (2002a). In this second listing, Guțu-Romalo goes into more detail to describe the context in which these endings occur. The context for each of the alternating desinence is as follows:

→ d_{11} for verbs with stems either ending in a consonant or consonant cluster (with the exception of stop+liquid) and no suffix (i.e. fug-*Ø*-*Ø* 'I run'), or with suffix (i.e. lucr-ez-*Ø* 'I work');

→ d_{12} for verbs with stems ending in a vowel and no suffix: *ta*-*Ø*-*i* 'I cut';

→ d_{13} stem ending in a stop+liquid or liquid+liquid cluster: *umpl*-*Ø*-*u* 'I fill';

→ d_{14} stem ending in *u* and no suffix (i.e. *continu*-*Ø*-*u* 'I continue') or monosyllabic aberrant stem ending in a vowel (i.e. *scri*-*Ø*-*u* 'I write');

→ d_{15} only for the verb *a avea* 'to have': *am* 'I have';

→ d_{21} all stems ending in a consonant (cluster), except stop+liquid and liquid+liquid, with suffix (i.e. *lucr-ez-i* 'you work') or without suffix (i.e. *arz*-*Ø*-*i* 'you burn');

→ d_{22} stem ends in a stop+liquid or liquid+liquid cluster and receives no suffix: *url*-*Ø*-*i* 'you yell';

→ d_{23} stem ending with a vowel and having no suffix: *scri*-*Ø*-*i* 'you write'

→ d_{31} all verbs from the first conjugation whose stems end in a consonant (*urc*-*Ø*-*ă* 's/he climbs'), all verbs with the infinitive in *–î* and no suffix (*coboar*-*Ø*-*ă* 's/he descends'), and some verbs with the infinitive in *–i* and no suffix (*ofer*-*Ø*-*ă* 's/he offers');

→ d_{32} first conjugation verbs with stems ending in *–u*: *continu*-*Ø*-*uă* 's/he continues';

→ d_{33} verbs in *–i,* except those in d_{31} (i.e. *fug*-*Ø*-*e* 's/he runs', *ghic-eșt-e* 's/he guesses'), verbs in *–î* with the suffix *–ășt* (i.e. *hotăr-ășt-e* 's/he decides'), and verbs from the 2nd and 3rd conjugation (i.e.);

→ d_{34} verbs whose stems end in a vowel (except those in d_{32}): [skri-Ø-i̯e] 's/he writes';

→ d_{35} restricted to a few aberrant verbs: *ia*-*Ø* 's/he takes', *bea*-*Ø* 's/he drinks', *vrea*-*Ø* 's/he wants'.

After the inventories presented in Table 9 and 10 are made, Guțu-Romalo (1968) combines the two classifications and identifies 38 conjugational patterns or sequences, which extend the (5 or 8) traditional ending patterns discussed in the first chapter. Since the list is quite long, it is quoted in appendix A.

Following the lengthy inventory of conjugational patterns, the author discusses several types of homonymy between suffixes of different tenses and between desinences within paradigms. Through these observed types of homonymy, she is able

to narrow down the 38 patterns to 10 conjugational classes, which will be presented in the following subsection.

Since our current analysis is restricted to the Romanian indicative present, the homonymy between desinences occurring within the boundaries of this tense is interesting to observe. She identifies three types of desinence homonymy for the indicative present:

1. between 3rd person singular and plural;
2. between 1st person singular and 3rd person plural;
3. between 1st person singular and 2nd person singular.

Out of the 38 conjugational classes, Guțu-Romalo (1968: 198) found that almost each class displayed one of these 3 types of desinence homonymy. There was one class (namely 14) that displayed both type 1 and type 3 homonymy, while there were two other classes (34 and 35) that did not display any of these three types. In (9) below, the three types of homonymy are exemplified.

(9) **a.** **type 1 & 3: *a sui* 'to climb'**

sui
sui
suie
suim
suiți
suie

b. **type 2: *a rupe* 'to tear'**

rup
rupi
rupe
rupem
rupeți
rup

The underlying reason for this phenomenon is not discussed, the author limiting herself to simply recording it. The discussion is later picked up by several other linguists, with one of the most recent analysis belonging to Feldstein (2004: 179), who argues that these three paradigm phenomena in the indicative present are a form of phonologically conditioned syncretism.

2.1.3 Guțu-Romalo's 10 conjugational classes

In her process of reducing the 38 ending sequences to 10 inflectional (conjugational) classes, the author of this structural analysis identifies three causes that determine complexity (expressed through a great number of different ending sequences) in the inflectional domain of the Romanian verb:

1. phonetically conditioned allomorphy;
2. morphologically conditioned allomorphy;
3. lexical allomorphy.

With this observation at hand, Guțu-Romalo (1968: 200-203) unites ending patterns (from her inventory of 38) when their differences are solely based on phonological reasons, and identifies distinct conjugational classes, when their differences cannot be accounted phonologically, but morphologically. Thus, the main criterion by which she identifies a distinct conjugational class is morphological. Table 11 below describes each conjugational class for the indicative present, where d_i represents the desinence for the *i*-th person (i.e. d_4 refers to 1st person plural, d_6 to 3rd person plural, etc.) and the quoted affixes are the indicative ones which are shared with other tenses. The series column shows which ending sequences are represented by each class.

Cls.	Series	Affix	Desinence	Examples
I	1-6	{-*á*-}	$d_3 = d_6$ = {-ă}	*ara* 'plow', *apropia* 'draw near'
II	7-11	{-*á~éz*-}	$d_3 = d_6$ = {-ă}	*lucra* 'work', *sublinia* 'emphasize'
III	12	{-*î́*- }	$d_3 = d_6$ = {-ă}	*coborî* 'descend'
IV	13, 14	{-*í*-}	$d_3 = d_6$ = {-ă}	*acoperi* 'cover', *sui* 'climb'
V	15, 16	{-*í*-}	$d_1 = d_6$ = {-*Ø*}	*sări* 'jump', *fugi* 'run'
VI	17-20	{-*í~ésc*}	$d_1 = d_6$ = {-*Ø*}	*isprăvi* 'finish', *hotărî* 'decide'
VII	21, 22	{-*é*-}	$d_1 = d_6$ = {-*Ø*}	*părea* 'seem', *tăcea* 'shut up'
VIII	23-25	{-*e*-}	$d_1 = d_6$ = {-*Ø*, -*u*}	*umple* 'fill', *face* 'do'
IX	26-28	{-*e*-}	$d_1 = d_6$ = {-*Ø*, -*u̯*}	*prinde* 'catch', *scrie* 'write'
X	29, 30	{-*e*-}	$d_1 = d_6$ = {-*Ø*}	*rupe* 'tear', *coace* 'bake'

Table 11. Guțu-Romalo's conjugational classes

The first thing we notice, looking at Table 11, is that only the ending sequences 1-30 are represented by these 10 classes. The author explains that she takes these first 30 sequences to represent regular verbs, Guțu-Romalo (1968: 203).

Another thing to notice is that, at least according to the information captured in the table above, classes VIII to X seem not to differ in indicative present affix and desinence syncretism. Actually, when looking in Appendix A at series 23-30, the only differences in the indicative present that these ending patterns display is in 1st person singular and 3rd person plural desinence. Namely, sequences 24 and 28 are almost the same in the indicative present but differ from all the others (which are exactly the same among each other) in that $d_1 = d_6 = [u]$ for sequence 24 and $d_1 = d_6 = [\underset{\frown}{u}]$ for sequence 28. This difference is taken by the author to be phonological, and that is why 24 is grouped with 23 and 25 (which display $d_1 = d_6 = \emptyset$) in class VIII and 28 is grouped with 26 and 27 (which also display $d_1 = d_6 = \emptyset$) in class IX.

The reason why patterns 23-30 are not grouped together into one single conjugational class appears to be a more poignant difference in their other tense forms. Namely, the three class difference identified by the author (meaning 23-25 vs. 26-28 vs. 29, 30) becomes apparent only when looking at the participle forms, which group together exactly according to this classification (23-25: [*-ú + t*]; 26-28: [*∅ + s*]; 29, 30: [*∅ + t*]). However, if we take simple perfect or pluperfect (which is always deductable from the simple perfect) forms to be the grouping criterion for these sequences, we end up grouping them differently: sequences 23 to 25 group together under the pluperfect form [*-ú + se-*], while sequences 26 up to 30 group under the form [*-sé + se-*], which implies only two different classes. If we take the subjunctive present as a grouping criterion, then we arrive at 3 classes but differently divided than the ones identified by Guțu-Romalo (1968: 202). Given these facts, I see no reason to assume one tense as a division criterion over the other.

Since our analysis is restricted to the indicative present, assuming all other reasons presented by the author in her 10-fold classification are valid, the differences between ending patterns in other tenses should not be relevant to a classification of ending patterns in the indicative present. Thus, the ending sequences represented by classes VIII to X should be taken to represent one conjugational class, when looking only at the indicative present.

2.1.4 Stem alternations

A classification of Romanian verbs according to stem alternation slightly simpler than the one presented in section 1.4 is a three-fold one, as identified by Guțu-Romalo (1968: 211), where verbs can either be:

1. verbs with a constant stem throughout their entire paradigm (i.e. *rupe* 'tear', *ara* 'plow'); they are called *regular*;
2. verbs whose stem is partially variable (i.e. *cere* 'ask'); these are called *partially irregular*;
3. verbs whose stem has suppletive allomorphy or *fully irregular* verbs (i.e. *a fi* 'to be').

Due to the second class being the most problematic, Guțu-Romalo (1968: 211-248) begins by first looking at these verbs, and attempts to account for the consonantal and vocalic alternations that their stems go through. Table 12 below collects the consonant alternations identified by Guțu-Romalo to occur in Romanian verb stems.

No	Alternation	Example
1	[k] / [ʧ]	*a călca* 'to step', *calci* [kalʧʲ] '(you) step'
2	[g] / [ʤ]	*adaug* '(I) add', *adaugi* [adauʤʲ] '(you) add'
3	[t] / [ʦ]	*așteptat* [aʃtept] '(I) wait', *așteptți* [aʃteptsʲ] '(you) wait'
4	[d] / [z]	*văd* [vəd] '(I/they) see', *vezi* [vezʲ] '(you) see'
5	[s] / [ʃ]	*cos* '(I/they) sew', *coși* [koʃʲ] '(you) sew'
6	[s (t)] / [ʃ (t)]	*gust* 'I taste', *guști* [guʃtʲ] '(you) taste'
7	[(ʃ) k] / [(ʃ) t]	*mușc* 'I bite', *muști* 'you bite'
8	[(s) k] / [(ʃ) t]	*nasc* '(I/they) give birth', *naști* [naʃtʲ] '(you) give birth'
9	n / Ø b / Ø	*rămân* '(I/they) remain', *rămâi* [rəmɨj] '(you) remain' *fierb* '(I/they) boil', *fier-se* 's/he boiled'
10	[k] / [ʧ] / Ø [g] / [ʤ] / Ø [t] / [ʦ] / Ø [d] / [z] / Ø	*ducând* 'leading', *duci* [duʧʲ] 'you lead', *du-se* 's/he lead' *spărgând* 'breaking', *spargi* 'you break', *spar-se* 'he broke' *a scoate* 'to remove', *scoți* 'you remove, *scoa-se* 'he removed'
11	[k] / [ʧ] / [p]	*coc-ând* 'baking', *coci* [koʧʲ] '(you) bake', *cop-sei* 'I baked'
12	[g] / [ʤ] / [p]	*înfig-ând* 'sticking', *înfige* [ɨnfiʤe], *înfip-se* 'stuck'

Table 12. Consonantal alternations identified by Guțu-Romalo

The final part of the alternations under 11 and 12 (involving [p]) only occurs in other tense forms, so these alternations are excluded from our analysis as they are irrelevant to the indicative present and, since the first part of these alternations is already captured in 1 and 2, alternations 11 and 12 will be completely ignored in our analysis. A similar thing happens to the final component in the alternations under 10. Namely, the final consonant in the stem (/k/, /g/, /t/, /d/, and /z/) is deleted only in other tenses (simple perfect, pluperfect, and participle), while the indicative present triggers the corresponding alternations already described in 1-4. Finally, the second alternation in 9 (b/∅) is isolated to the verb *a fierbe*, which does not display the deletion in the indicative present. Alternations 6 to 8 all seem to be related somehow to alternation 5 and Chițoran (2001a: 192-195) is able to account for all these in a similar way.

Regarding the orientation of these alternations (i.e. which form comes first/ is underlying), Guțu-Romalo (1968: 214) takes it to be arbitrary and without real consequence to the description. She chooses the element in the 1st person singular form to represent the first element in an alternation by arguing that in most cases this form has null ending so would most likely display the uninflected (underlying) form of the stem. Chițoran (2002a: 43) assumes that the first person singular present indicative form does have an inflectional marker, an underlying /-u/ which is deleted when preceded by only one consonant. However, even when it surfaces, the realization of this person marker does not affect the final element of the stem so it does not trigger alternation, which means that the assumption that the 1st person singular indicative present form displays the underlying form of the stem is a safe one.

According to Guțu-Romalo (1968: 214), consonant stem alternations in the Romanian verb paradigm always and without exception occur at the juncture between stem and the various affixes which get attached during conjugation, are restricted to one per stem, and are not influenced by stress. The first most often cause for the occurrence of the second element of the alternations listed above is the non-syllabic surface form of the 2nd person singular marker *–i*, which triggers palatalization of the preceding consonant, Chițoran (2002a: 173), and triggers either one of the alternations listed above (except b/∅). In this case, the occurrence is phonologically conditioned.

Some of the alternations (2-5) can also appear when the stem is followed by a vocalic realization of *–i*, in which case the alternation can be argued to not be just phonological, but also morphological, since vocalic *–i* characterizes verbs with the

infinitive in *–i*. Alternation 3 is argued by Guțu-Romalo to be lexically conditioned for a small number of verbs whose stem ends in *-s* and infinitive in *–i,* which receive the same ending pattern as other verbs displaying this stem alternation, but have an [s] instead of a [ʃ] preceding the theme vowel in their infinitive, as shown in (10).

(10) **[s], when followed by [*i*]**:

a. becomes **[ʃ]**: *i̯és* '(I/they) exit', *i̯eși* 'to exit' (alternation 3, [s]->[ʃ]);

b. remains **[s]**: *mirós* '(I/they) smell', *mirosí* 'to smell' (no alternation).

The two types of verbs represented in (10) display alternation 3 in different environments: *ieși* displays 3 when followed both by syllabic and nonsyllabic *–i*, whereas *mirosi* only in the context of nonsyllabic manifestation of the 2nd person singular marker *–i*. For alternations 1, 2, 7, and 8, the second element of the alternation can also appear after the 3rd person singular marker *–e* which is always syllabic and phonologically conditions the alternation, Guțu-Romalo (1968: 216-217).

The second type of stem alternation involves the stem's vocalic elements, which, according to Guțu-Romalo (1968: 223) and as discussed in 2.1.1, can be stressed or unstressed. This mobility of stress leads to the following division of vocalic alternations:

1. vocalic alternations which maintain stress (Table 13)
    a. within stressed syllable
    b. within unstressed syllable
2. vocalic alternations which involve stress loss (Table 14).

Syllable	**Alternation**	**Examples**
stressed	ă/a	*agă̆ț* '(I) hang'/ *agáță* '(s/he/they) hang'
	e/a	*ședé* '(I/they) sit'/ *șáde* '(s/he) sits'
	î/i	*vând* '(I/they) sell'/ *vínde* '(s/he) sells'
	e/e̯a	*alérg* '(I) run'/ *ale̯árgă* '(s/he/they) run'
	o/o̯a	*ród* '(I/they) chew' / *roade* [rwáde] '(s/he) chews'
	ă/e/a	*spă̆l* '(I) wash'/ *spéli* '(you) wash'/ *spálă* 's/he/they wash'
unstressed	ă/e	*ápăr* '(I) defend'/ *áperi* '(you) defend'

Table 13. Vocalic alternations which maintain stress

Alternation	Examples
á/ă	*bág* ‘I insert’, *bágă* ‘(s/he/they) insert’ / *băg̑ăm* ‘(we) insert’
í/e	*vín* ‘(I/they) come’ / *vením* ‘(we) come’
ú/Ø	*usúc* ‘(I) dry’, *usúci* ‘(you) dry’, *usc̑ăm* ‘(we) dry’
ó/o̯á/u	*pórt* ‘(I) wear’, *poartă* [pwártə] ‘(s/he/they) wear’, *purt̑ăm* ‘(we) wear’

Table 14. Vocalic alternations with stress loss

The phonological conditioning is more proeminent here than it is in consonantic alternations, while the morphological conditioning is indirect. Appendix B quotes the interactions identified by Guțu-Romalo (1968: 234) between consonantal and vocalic alternations. Unlike the consonantal ones, vocalic alternations rarely occur on the final position of the stem, due to stems typically ending in a closed syllable (i.e. having a coda) in Romanian, which means that the final stem position is usually occupied by a consonant.

Since the interaction between the two main types of alternations is quite complex and a stem can undergo several alternations during conjugation, Guțu-Romalo (1968:235) takes the various results of alternation in a stem to represent *allomorphs* of that stem which should be listed separately from a conjugational classification. She even goes on to classify verbs according to how many allomorphs their stem has, identifying verbs with at most 6 stem allomorphs within their whole paradigm (11) and at most 4 allomorphs within the indicative present (12).

(11) *trág* ‘I pull’
trăg(*înd*) ‘pulling’
trág(e) [tr*á*ʤ-e] ‘(s/he) pulls’
trăg(*eam*) [trəʤ-e̯*á*m] ‘(I) was pulling’
tra(*se*) ‘(s/he) pulled’
tră(*sei*) ‘(I) have pulled’

(12) *port* ‘(I) wear’
porț-i ‘(you) wear’
poart-ă ‘(s/he/they) wear’
purt-ăm ‘(we) wear’

These alternations usually happen at the joncture between stem and conjugational affixes and are caused by affixation, which means that there is a part of the stem which doesn't suffer alternation and is usually invariable throughout the paradigm. Because of this, Guțu-Romalo (1968: 235) takes verbs who suffer a modification of the first element of the stem to have an aberrant variation and classifies them outside of the partially irregular verb group.

Thus, a partially irregular verb, according to Guțu-Romalo (1968), means a verb which has up to 4 stem allomorphs in one tense or up to 6 forms in the paradigm and an invariable part at the begining of the stem. When the stem has more than 6 diffrent forms throught the paradigm and these forms do not share an invariable part, then the stem is said to go through supletion and the verb is deemed fully irregular. Guțu-Romalo (1968: 249-252) identifies 2 fully irregular verbs, *a fi* and *a lua* (13), and 6 partially irregular verbs presenting aberrant paradigms: *mânca* 'eat', *da* 'give', *sta* 'stay', *bea* 'drink', *vrea* 'want', and *avea* 'have'. She notices certain similarities between the verbs *da, sta, bea*, and *vrea*, but claims the variations in each paradigm do not allow a reunion of these verbs under one rule, Guțu-Romalo (1968: 252). However, the unaccountable variations she identifies do not occur in the indicative present, in which tense these verbs seem to follow two patterns, as shown in (14), with the exception of *vrea* which exhibits aberrant stem in the 3rd person plural.

(13)

a fi 'to be'	***a lua*** 'to take'
sunt	*iau*
eşti	*iei*
este	*ia*
suntem	*luăm*
sunteți	*luați*
sunt	*iau*

(14)

a da	***a sta***	***vs.***	***a bea***	***a vrea***
dau	*stau*		*beau*	*vreau*
dai	*stai*		*bei*	*vrei*
dă	*stă*		*bea*	*vrea*
dăm	*stăm*		*bem*	*vrem*
dați	*stați*		*beți*	*vreți*
dau	*stau*		*beau*	*vor*

Guțu-Romalo (1968: 240-247)'s classification based on how many stem allmorphs a Romanian verb has also includes infromation about which person and number forms share the stem (i.e. stem syncretism information) which leads to further subdivisions in this classification. The reduced (to the indicative present) and thus reordered version of her classification is given Appendix C.

2.1.5 Final paradigmatic classification

After classifying Romanian verbs according to stress mobility (Table 8), ending patterns (Appendix A, Table 11), and stem alternations (Tables 12, 13, and 14, Appendix B), Guțu-Romalo (1968: 261-264) attempts to reunite this information under one paradigmatic classification. She first very straightforwardly intersescts the stress and general ending pattern classifications, obtaining the distribution of her 10 conjugational classes according to stress mobility, which is quoted in Table 15.

Stress mobility class	**Conjugation**
I	I, III, IV, VII
II	II, VI
III	VIII, IX, X

Table 15. Distribution of conjugations according stress classes

After this, she proceeds to include stem alternation within the conjugational classification by distributing the stem allomorphy subtypes, which she identified in Guțu-Romalo (1968: 240-247) and which I reduced and regrouped in Appendix C, according to her 10 conjugational classes. The resulting classification (even when it is done with the reduced and regrouped versions for the indicative present) is cumbersome and much too close to a simple enumeration, as the author herself notes in Guțu-Romalo (1968: 265).

However, she insists that information regarding stem allomorphy must not be overlooked when attempting to create a description of Romanian verbs in such a way as to be able to fully reconstruct their paradigms from the given information. This leads her to look for a diffrent approach to characterizing the stem, and settles on one inspired by Moisil (1960)'s variable letter solution, with her version reliying on phonetic representations instead of written form.

The solution proposed by Moisil (1960) and revisited by Guțu-Romalo (1968) involves using a symbol formed out of a letter and a subscripted digit in the notation of a stem to suggest what type of alternation that letter/sound will get and in what context. The example below extracts Guțu-Romalo's use, with s_i meaning the *i*-th surface stem in the indicative present (i.e. s_4 means 1st person plural stem):

(15) *a cânt*$_0$*a* 'to sing', where t_0 is:

→ *ț* in s_2 and *t* in all other forms of verbs from the 1st, 2nd, and 4th conjugation;

→ *ț* in s_2, s_4, and s_5 and *t* in all the other forms of verbs from the 5th conjugation.

This notation requires the prior definition of these variable letters (each indice representing one type of alternation). Guțu-Romalo (1968:266-271) thus lists 30 of these variable letters with their context for all tenses.

2.2 Problems raised by Guțu-Romalo's analysis

As noted by Avram (1969b: 557) and discussed in 2.1.1, a first problem in Guțu-Romalo's analysis arises from her unexpected and ill-founded choice of verb segmentation. Besides taking the affixes that tie stem and desinence together to be part of the ending rather than part of the stem, a choice which leads to more ending patterns as briefly discussed in section 2.1.1, Guțu-Romalo also wrongly identifies the stem in some cases. Example (16) below quotes the two possible "stem-ending" segmenations which Guțu-Romalo (1968: 143) identifies for the verb *a tăia* 'to cut'.

(16)	a.		vs.	b.	
		ta-i			tai-∅
		ta-i			tai-∅
		ta-ie			tai-e
		tă-iem			tăi-em
		tă-iați			tăi-ați
		ta-ie			tai-e

The two segmentations above mean to separate the stem from the ending, and do not display a further segmentation in the ending sequences between affix and desinence, something which Guțu-Romalo (1968) performs later on in her analysis. Although she offers three advantages for the second segmentation, she ends up picking segmentation a. over b., stating that verbs like *a speria* 'to scare' or *a apropia* 'to bring near' demand the first segmentation and, if verbs like *a tăia* get the same

segmentation, there will be a smaller number of ending patterns. This is shown in the example below, together with the segmentation for the verb *a umple* 'to fill' and *a ara* 'to plow'.

(17)	***tăia***	***speria***	***umple***	***ara***
	tá-i	*spéri-i̯*	*umpl-u*	*ar-Ø*
	tá-i	*spéri-i̯*	*umpl-i*	*ar-i*
	tá-i̯e	*spéri-i̯e*	*umpl-e*	*ar-ă*
	tă-i̯ém	*speri-i̯ém*	*umpl-em*	*ar-ăm*
	tă-i̯áți	*speri-i̯áți*	*umpl-eți*	*ar-ați*
	tá-i̯e	*spéri-i̯e*	*umpl-u*	*ar-ă*

However, this type of argumention, as noted by Avram (1969b: 557), besides being circular, is grounded on a false premise. There is no reason why *a speria* and *a apropia* cannot receive the second type of segmentation or the first, (ibid.), and if they do receive segmentation (16a) and thus have the same ending pattern as *a tăia*, it won't lead to a smaller number of ending sequences than it would lead if *speria* and *apropia* were segmented, together with *tăia*, according to (16b), as shown in (18) (with Guțu-Romalo's fonetic transcriptions).

(18)	***tăia***	***speria***	***apropia***
	t*á*i-*Ø*	sp*é*ri̯i̯-*Ø*	apr*ó*pi̯i̯-*Ø*
	t*á*i-*Ø*	sp*é*ri̯i̯-*Ø*	apr*ó*pi̯i̯-*Ø*
	t*á*i̯-e	sp*é*ri̯i̯-e	apr*ó*pi̯-e
	tăi̯-*é*m	speri̯i̯-*é*m	apropi̯i̯-*é*m
	tăi̯-*á*ți	speri̯i̯-*á*ți	apropi̯i̯-*á*ți
	t*á*i̯-e	sp*é*ri̯i̯-e	apr*ó*pi̯i̯-e

Guțu-Romalo (1968: 145) further attempts to argue that the ending sequence resulted from a common segmentation of verbs *tăia*, *speria*, and *apropia* according to (16a) can be reduced to the sequence srufacing in verbs like *ara*, shown in (17). Namely, *–Ø*, *–ă*, and *–ăm*, she argues, can be shown to surface as *–i*, *–e*, and *–em*, respectively, when preceded by a vocalic *i* as part of the stem. Apart from the confusing fact that the *i* in *tăia* was already being argued by the same Guțu-Romalo (1968: 143-144) to not be part of the stem, but of the ending, the same thing can be

said about the ending sequences resulted from the segmentation in (16b) (i.e. from the point of view of phonological conditioning, it is irrelevant whether the triggering context *i* is taken to be in the stem or in the ending as long as, in both cases, it precedes the endings in question).

What her analysis does not attempt to account for, but more recent ones such as Feldstein (2004)'s do, is the presence of *–u* as first person singular indicative present ending in verbs such as *umple* in (17) and its link to other first person singular ending surface forms. It has come to be a generally accepted fact that Romanian verbs have a first person singular underlying marker which is deleted if preceded by only one consonant: Chițoran (2002a: 43), Feldstein (2004: 182). This knowledge permits us to unify the first person singular surface endings from (18) with the one in *umple*, which represents a solid argument for segmentation (16b) and angainst (16a). This is also a step forward in unifying all first person singular ending (surface) forms under one underlying form (as long as the segmentation is assumed to be diffrent than what Guțu-Romalo proposes), a thing which Guțu-Romalo's analysis does not attempt to do as systematically.

Another instance identified by Avram (1969b: 559) of ungrounded delimitation between stem and ending is the inclusion of glides /y/ (in updated analyses /j/) and /w/ in the conjugational ending, this leading, for instance, to identifying three different (surface) forms for the imperfect inflectional marker (*-a*, *-ua*, *-ia*) instead of just one (*-a*).

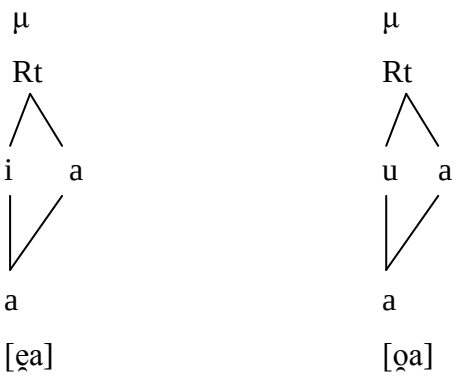
As mentioned previously, apart from the unfounded delimitation of stems from endings with which Guțu-Romalo (1968) opens her structural analysis of the Romanian verbal domain and which complicates the list of ending sequences with either inaccurate or phonologically accountable surface forms, there are some other problems with how the ending is further segmented and treated. She takes a conjugational ending of the indicative present to be formed of an affix and a desinence, Guțu-Romalo (1968: 149-150). The affix, linking the stem with the desinence, is identified by the author based on the possibility of it being replaced by a different affix to mark a different tense form. For instance, one can substitute *–ă* with *–a* (as marker of the imperfect tense) in 1st person plural indicative present forms (and not operate any changes in the stem or the desinence) to obtain the 1st person plural forms of the imperfect (19a).

(19) a. *cânt*-ắ-*m* ‘we sing’ vs. *cânt*-*á*-*m* ‘we were singing’
vis-ắ-*m* ‘we dream’ vs. *vis*-*á*-*m* ‘we were dreaming’
b. *cit*-*í*-*m* ‘we read’ vs. *cit*-*e̯á*-*m* ‘we were working’
ven-*í*-m ‘we come’ vs. *ven*-*e̯á*-*m* ‘we were coming’
c. *băt*-*é*-*m* ‘we beat’ vs. *băt*-*e̯á*-*m* ‘we were beating’

Unlike the somewhat classical view represented by Graur (1957) in which these affixes are seen as theme vowels, Guțu-Romalo (1968: 150) takes them to be suffixes. However, the verbs in (19b) which have as theme vowel *–i*, do not seem to undergo a simple substitution phenomenon where one present tense marker (suffix) is switched with another tense marker. That is because the imperfect tense marker *–a*, here, surfaces as the diphthong *e̯a*, which means a diphthongization took place without an apparent trigger.

If, contrary to Guțu-Romalo’s stance, the *–i* in (19b) and all other affixes in that position (between stem and person/ number desinence of the present tense) are taken to be surface forms of the corresponding theme vowels, and if the status of *-a* in the imperfect is maintained as a tense marker, then the diphthong *-e̯a* here is actually a result of the interaction between these verbs’ theme vowel *-i* and the imperfect marker. Chițoran (2002a: 206)’s representation of the Romanian diphthongs, quoted in (20), supports this analysis.

(20)



In fact, both Chițoran (2002a) and Feldstein (2004) agree that the affixes between stem and desinence (when they are phonologically realized) represent the theme vowel, and Feldstein (2004: 183-184) also identifies the *–a* in the ending of the imperfect as a tense marker, while he assumes the tense marker for the indicative present to be null. So there is a diffrence in status between the indicative present affix

–i in (19b) and the imperfect tense affix *–e̯a*: the first is a realization of the theme vowel, the second is a realization of a tense marker influenced by a theme vowel.

Another problem related to the analysis of these theme vowels/ affixes by Guțu-Romalo (1968) has to do with the status of "extended suffixes" *–ez* and *–esc* and their relation to thematic vowels *–a* and *–i*, respectively. Guțu-Romalo (1968: 151) takes them all to have the same status of surface forms of the present tense suffix. Avram (1969b: 558-562), wonders what the link is between *–a*, *–ă*, and *–ez*, on the one hand, and *–ez* and *–eaz*, on the other, whether taken seperately or as sequences. Namely, he asks whether they are phonologically or morphologically conditioned allomorphs and expresses concern that neither of the two answers are valid: there is no way a phonologically conditioned allomorph *–ez* could have two phonologically conditioned allomorphs realizations, [*ez*] and [*e̯az*], and a morphologically conditioned allomorph {*-á*, -ắ, *-é*z} could have morphologically conditioned allomorph realizations. Some contexts in which these affixes appear are shown in (21) and compared to the affix sequence {-ă, -a, -*Ø*}.

(21)	***a lucra*** 'to work'	vs.	***a ara*** 'to plow'
	lucr-ez		*ar-Ø*
	lucr-ez-i		*ar-i*
	lucr-eaz-ă		*ar-ă*
	lucr-ă-m		*ar-ă-m*
	lucr-a-ți		*ar-a-ți*
	lucr-eaz-ă		*ar-ă*

Chițoran (2002a:35) takes *–ez* and *–esc* to be "empty derivational suffixes", mere extensions of the stem which do however affect stress pattern. She takes them to be part of the stem as theme vowels are, yet she does not think they can surface together in the same verb form, Chițoran (2002a: 54). However, a uniform selection between (verbs with) theme vowel *–a* and the affix *–ez*, on the one hand, and *–i* and *–esk*, on the other, clearly exists. Feldstein (ND: 9) considers that these "extended suffixes" may occur with or without theme vowel, and, when they do occur with, they always carry stress and precede the (unstressed) theme vowel.

Finally, Avram (1969a:435-436) identifies problems in how Guțu-Romalo defines homonymies and morphologically conditioned allomorphs, which are the basis of her 10 conjugational classes, and expresses disaproval of her *stem* definition.

2.3 Feldstein's segmentation of the Romanian verb

Departing in complexity from the segmentations presented so far by Guțu-Romalo (1968) and even Chițoran (2002a), Feldstein (2004) posits a three-fold segmentation of the conjugational ending of Romanian verbs. Table 16 below quotes his analysis. The theme vowel, when it surfaces, is taken by Feldstein to be part of the stem as does Chițoran (2002a).

	Indicative present tense			**Imperfect tense**		
	Tense	Number	Person	Tense	Number	Person
1ag	Ø	Ø	*-u*	*-a*	*-m*	*-u*
2sg	Ø	Ø	*-i*	*-a*	Ø	*-i*
3sg	Ø	Ø	Ø	*-a*	Ø	Ø
1pl	Ø	*-m*	*-u*	*-a*	*-m*	*-u*
2pl	Ø	*-t*	*-i*	*-a*	*-t*	*-i*
3pl	Ø	*-u*	Ø	*-a*	*-u*	Ø

Table 16. Present and imperfect tense ending segmentation

An aspect in which Feldstein's segmentation differs from Chițoran is the tense marker. Chițoran (2002a: 43) assumes that *–a* in *cânt-a-m* 'we were singing' is the theme vowel and not an imperfect marker and is thus part of the stem. Actually, she doesn't posit a tense marker for the present or imperfect, but she does for the pluperfect which coincides with Feldstein (ND: 17)'s. His argument for *–a* being a mark of the imperfect is relies on *batem* and *băteam* differing in exactly one element.

2.4 Conclusions so far

We have looked at the structural analysis of the Romanian verbal domain by Guțu-Romalo (1968) and have seen the extent of its complexity and how the length of surface form (allomorph) inventories as well as the number of underlying form conjugational classes can be affected by improper segmentation of the verb and improper analysis of the status of endings.

In what follows we will attempt to minimize the description by indentifying more phonologically and morphologically conditioned allomorphs and examining and offering extended and more rigorous accounts.

3. PHONOLOGICAL PROCESSES IN THE VERBAL DOMAIN TRIGGERED BY CONJUGATION

In what follows we will assume the more minimal segmentation of Chițoran (2002a), and, when it will be required of us, we will further analyze the ending sequence in the three-fold way introduced by Feldstein (2004), since the two segmentations are not mutually exclusive, but rather the latter is a more detailed updated version of the first. The phonemic vowel inventory is taken to be that in Chițoran (2002b: 204) and given in (22), while the consonantal inventory shown in (23) is from Chițoran (2002a: 10).

(22) Romanian vowel inventory:

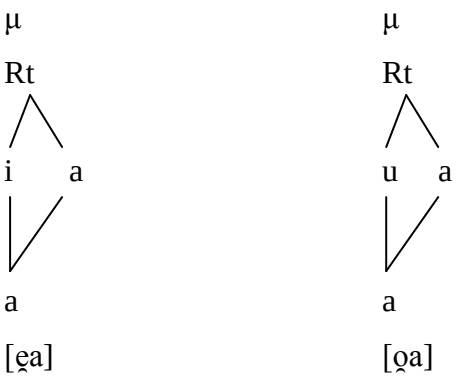
i	ɨ	u		
e	ə	o		
e̯a	a	o̯a	glides: j	w

(23) Romanian consonant inventory:

	labial	dental	palatal	velar	glottal
stops	p, b	t, d	ʧ, ʤ	k, g	
		ʦ			
fricatives	f, v	s, z	ʃ, ʒ		h
nasals	m	n			
approximants		l			
		r			

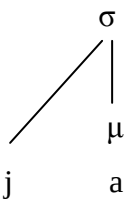
Chițoran (2002b: 204), along with others, treats the diphthongs as the low counterparts of front and backed vowels. She argues for the phonemic status of some occurrences of these two diphthongs by quoting minimal pairs (i.e. *témə* 'homework' vs. *te̯ámə* 'fear' and *póftə* 'appetite' vs. *po̯ártə* 'gate'), while other occurrences are taken to be phonologically and morphologically conditioned. The glides, on the other hand, are not considered phonemic, Chițoran (2002a: 95). Whether phonemic or derived, the diphthongs are always under stress, Chițoran (2002b: 204). As mentioned in section 2.2, Chițoran takes the diphthongs to share a syllable nucleus, and their representation is quoted again in (24).

(24)



An interesting question arises as to the status of the first part of the diphthongs, namely whether the initial elements are the same as the mid/back glides. Chițoran (2002b)'s perception-production study revealed neutralization between back glide-vowel sequence [wa] and the back diphthong [o̯a] (i.e. the underlying /ua/ sequences undergoing glide formation have the same phonetic realizations as [o̯a]) and a contrast between the mid glide-vowel sequence [ja] and the mid diphthong [e̯a] which leads to [ja] receiving a different representation than that received by the diphthongs, as shown below.

(25)



The neutralization of [wa] and [oa] is explained by Chițoran (2002a: 248-249) and Chițoran (2002b: 221) through a language specific difference in frequency, and through the difficulty of maintaining a contrast between two back rounded glides since the distance between the back vowels [o] and [u] is relatively smaller than the one between front [i] and [e]. She also notes the asymmetry in the surface distribution of glides [j] and [w], with the mid glide occurring in more contexts than the back one.

As stated several times before, Chițoran (2002a: 42-43) assumes the conjugational suffixes of Guțu-Romalo (1968) to be realizations of theme vowels (vowel of the traditional conjugational class) which are taken to be part of the stem and not of the ending. This leads to the inflectional ending never carrying stress, something which does happen for the imperfect tense if we assume the segmentation of Feldstein, wherein *–á* in the imperfect is taken to be a tense marker and not a theme vowel, so it is part of the ending (which becomes stressed) and not of the stem.

However, since our interest is only in the indicative present, and in the indicative present Feldstein posits a null tense marker with the theme vowel surfacing before the ending (so as final part of the stem), the two segmentations are more or less equivalent in relation to the present study.

3.1. Hiatus resolution

Romanian tolerates surface hiatus in a small number of lexical items, bearing mid-mid (i.e. /e e/, /o e/, /e o/, and /oo/), mid-low (i.e. /e a/, /o a/) or low-mid (i.e. /a e/, /a o/) sequences, Chițoran (2002a: 121-122). For the majority of underlying hiatus contexts, though, the situation is resolved either through glide epenthesis or glide formation, as shown in Chițoran (2002a: 96-97) and quoted below, depending on stress placement.

(26)	**glide epenthesis**	**glide formation**
	ha.jí.nə 'mean' F	*háij.nə* 'coat'
	v*í*.je 'vineyard'	*vijér.me* 'worm'
	lá.wu.də 'praise'	no item
	pə.wún 'peacock'	no item

Example (26) above shows that glide formation does not occur in the case of the back high vowel /u/, regardless of stress location. Chițoran (2002a: 103)'s analysis shows that epenthetic [j] surfaces when the second vowel in the sequence is front, or when the first vowel of the sequence is /i/ and the second one is not /u/, and epenthetic [w] surfaces either when the second vowel in the sequence is /u/, or when the second element is back (but not /u/) and the first is not /i/.

3.2 Regressive metaphony, diphthongization, and deletion

According to Chițoran (2002b: 204), the two diphthongs in Romanian and the vowel /a/ are subject to (regressive) metaphony, the process by which the vowel of an inflectional marker affects the height of the stressed vowel of the stem. Actually, Chițoran (2002a: 98) takes the majority of vowel alternations in Romanian to involve height. She identifies three types of alternations that occur under stress in Romanian: the two diphthingizations, e ~ e̯a, o ~ o̯a, and ə ~ a. Chițoran (2002a: 206) argues that Romanian diphthongization should be treated as a vowel lowering under stress. The third alternation of stressed [a] with unstressed [ə] should not be considered vowel

reduction, like in English, since shwa is not a phonologically reduced vowel and has phonemic status in Romanian. In the context of stress, the diphthongs always surface in 3rd person singular (and sometimes plural) forms (27a), while the other forms in the paradigm contain the mid vowels. Newer verbs, however do not display the diphthongs (27b).

(27) a. *dorm* 'I sleep' / *dọ́arme* 's/he/they sleep'
skol 'I awake' / *skọ́lə* 's/he/they awake'
lucr-éz 'I work' / *lucr-ẹ́az-ə* 's/he/they work'
b. *implor* 'I implore' / *implor- ə* 's/he/they implore'

As far as vowel alternations taking place outside of stress, Feldstein (2004: 185-186) identifies three processes:

1. any unstressed front-vowel theme (regardless of frontness or backness) becomes mid before an unstressed desinential vowel;
2. an unstressed theme vowel becomes mid before a word-final vowel or zero desinence;
3. an unstressed mid vowel is deleted when it precedes an unstressed desinential vowel; an unstressed high desinential vowel is deleted when it is preceded by a non-mid (high or low) vowel.

These do not apply to verbs with monosyllabic stems, where the theme vowel is stressed and the first person marker *–u*, instead of being deleted, surfaces as a glide.

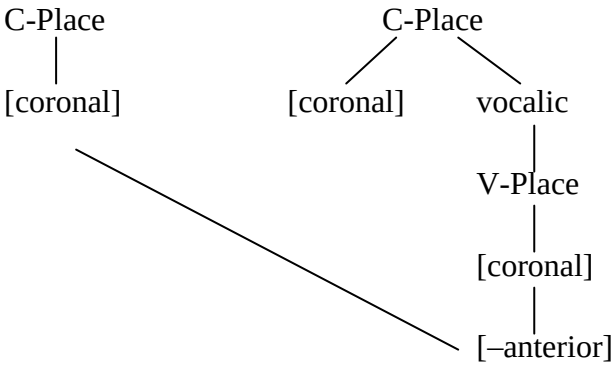
3.3 Palatalization

Chițoran (2002a: 173), along with others, takes palatalization to be triggered by an underlying /i/, Spinu (2007: 306). Word final underlying high vowels surface as glides if they are preceded by a vowel. If they are preceded by a consonant, /u/ is deleted while /i/ surfaces as palatalization of the preceding consonant, affecting secondary articulation. Final *–i* can also affect primary place of articulation for a preceding coronal or velar consonant, in which case the palatalization is morphologically conditioned and applied only at morpheme boundary. The author finds consonantal alternations triggered by palatalization (those already listed in section 2.1.4) to be regular, with the exception of palatalized /l/ which can either surface as [j] or as [l^{j}], but occurs only in the nominal domain (which is why it's not listed in table 12).

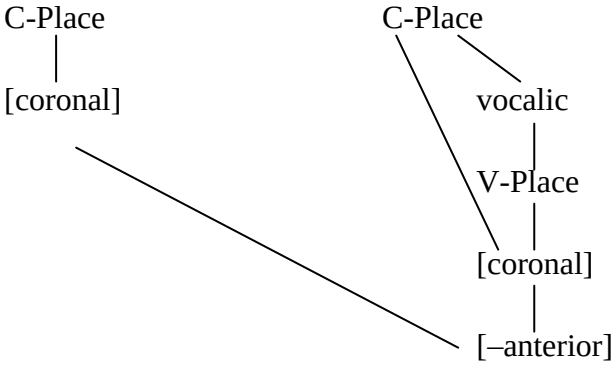
In order to account for these alternations, Chițoran (2002a: 186) first adds the feature [strident] for coronal segments to capture the difference between /t/ and /ʦ/, treating affricates as [+strident] stops. The triggers for morphologically conditioned, feature changing palatalization are *–i* for coronals and velars and *–e* for velars. Chițoran (2002a: 189) assumes palatalization to generally be the spreading of the coronal feature from a front vowel to the V-place of a preceding consonant which leads to secondary articulation, and redundantly specifies front vowels as [–anterior].

In the case of coronal and velar obstruents (/s/, /z/, /k/, /g/), palatalization also involves a stage, for Chițoran, in which the coronal or dorsal articulation is affected and secondary articulation features are promoted to primary articulation. Namely, [–anterior] of *–i* is spread to C-place [coronal] for coronals /s/ and /z/ which turn into [ʃʲ] and [ʒʲ] under palatalization, respectively, and [coronal] spreads to C-place and [dorsal] is delinked for velars /k/ and /g/ which result in [ʧʲ] and [ʤʲ]. For coronal fricatives only the [–anterior] is promoted to primary articulation. For coronal stops, palatalization involves the insertion of [+strident] along with vowel feature spreading. Chițoran's accounts for alternations *st-ʃtʲ* and *sk-ʃtʲ* are given below.

(28) *st-ʃtʲ*



(29) *sk-ʃtʲ*



According to Chițoran, *–u* for verbs is the first person singular marker in the indicative present tense and *–i*, also for verbs, is the second person singular marker. However, according to Feldstein (2004: 183), who posits separate markers for number and person, *–u* and *–i* are 1st and 2nd person markers independent of number and tense. This correctly predicts that they should be contained by 1st and 2nd person plural endings as well. Surely enough, the 2nd person plural present tense ending desinence *-ʦʲ* appears to be the result of palatalization of *–t*, which Feldstein (2004) takes to be the 2nd person plural *number* marker (i.e. preceding the person marker). This means that Feldstein's segmentation, at least as far as indicative present number and person goes, is on the right track.

3.4 Feldstein's derivation of indicative present forms

Feldstein (2004: 185) assumes that the conjugated form of a verb is derived in cycles corresponding to the affixation of the marker. The process is finished once the ending is fully attached to the stem and all phonological rules have been applied. Thus, at each cycle of conjugation (stem + tense, stem + number, and stem + person), the rules stated in section 3.2 will be applied in order to change theme vowels to mid-vowel height and then to delete vowels in the sequence of theme vowel plus vocalic desinence. Table 17 shows how the first person singular of the indicative present is derived for three verbs.

Cycle	***a invita***	***a bate***	***a sări***	**Comments**
1. Basic input	invita+Ø-Ø-u#	bate+Ø-Ø-u#	sari+Ø-Ø-u#	
2. Tense	invita+Ø-u#	bate+Ø-u#	sari+Ø-u#	Elimination of zero tense morpheme
3. Number	invita+u#	bate+u#	sari+u#	Elimination of zero number morpheme
4. Person	(a) invitə+u#	--	sare+u#	Unstressed theme vowel → mid preceding word-final desinence
	(b) invit+u #	bat+u#	sar+u#	Deletion of unstressed mid [e/ə] before desinential vowel
5. Postlexical	invit	bat	sar	Loss of *-u#* unless blocked due to preceding [consonant + liquid] sequence

Table 17. Derivation of 1st person singular present forms

4. ACCOUNTING FOR THE ALTERNATIONS

In what follows we will look again at Guțu-Romalo (1968)'s ending sequences, this time to see if the list can be reduced based on the information we've drawn in the previous chapter about phonological processes occurring in Romanian. We will assume the affixes Guțu-Romalo (1968) considers as suffixes before desinences to be surface forms of the theme vowel. The theme vowels are assumed to be *–a*, *–e*, *–i* and *–î*. Verbs in *–e̯á* can and will be treated as having theme vowel *–e*, with the stress falling on the theme vowel instead of the root. Feldstein (ND: 8) argues for this interpretation due to the already discussed diphthongization that *e* undergoes under stress. The ending *–î* can be treated as a subclass of *–i*, however, for ease of argumentation, we will treat them separately.

Since alternations in the consonantal or vocalic, or both, segments of the stem can be accounted through the phonological processes discussed in the previous chapter in a more trivial matter than the ending sequences, and since the ending sequences are more numerous than the stem alternations, we will only look at ending sequences as see if they can be reduced due to phonological or morphological conditioning.

4.1 Reducing the ending sequences

Looking at Guțu-Romalo's (1968: 196-197) 38 ending sequences for the indicative present (quoted in appendix A), we first see that 15 of these refer to verbs with *–a* as theme vowel, 7 with *–i*, 2 with *–î*, and 11 with *–e*. Sequences 36 and 37 are listed with a null theme vowel/ infinitive ending, but they represent aberrant/ irregular verbs *ști* 'know' and *fi* 'be', so they will be ignored. Sequence 22 is listed as having *–a* as theme vowel/ infinitive ending, yet it is shown to represent verbs *plăcea* 'like' and *tăcea* 'be silent', both of which actually end in *–e̯á* and display the theme vowel *–e* in the ending pattern as well so they will be treated as *–é* theme vowel verbs. Since patterns 31 to 38 are considered by the author herself to represent irregular or aberrant verbs, these will be treated last.

4.1.1 Verbs with theme vowel (stressed or unstressed) *-e*

As discussed in section 2.1.3, patterns 21 to 30, meaning all patterns representing verbs which have *–e* as theme vowel, appear to be surface forms of an underlying pattern. The 4 surface forms are shown in (28).

(28)	a.	Ø + Ø	b.	Ø + Ø
		Ø + [-^{i}]		Ø + [-^{i}]
		Ø +[-e]		Ø +[-e]
		[-*é*-]+[-m]		[-*e*-]+[-m]
		[-*é*-]+[-ț^{i}]		[-*e*-]+[-ț^{i}]
		Ø + Ø		Ø + Ø
	c.	Ø +[-u]	d.	Ø +[-u]
		Ø + [-i]		Ø + [-i]
		Ø +[-e]		Ø +[-e]
		[-e-]+[-m]		[-i̯e-]+[-m]
		[-e-]+[-ț^{i}]		[-i̯e-]+[-ț^{i}]
		Ø +[-u]		Ø +[-u]

Form (28a) is represented by patterns 21 and 22 which both describe verbs ending in *–e̯á*, (i.e. have *–é* as theme vowel), while (28b) is represented by patterns 23, 25, 26, 27, 29, and 30, which describe verbs with the infinitive ending in *–e* (i.e. have –e as theme vowel). The only diffrence in these first two surface forms is the stressed/ unstressed [-*e*-] in the 1st and 2nd person plural which can be explained by the diffrence between theme vowel stress: (28a) represents verbs with stressed *–e*, while (28b) represents verbs with unstressed *–e*.

Forms (28c) and (28d) represent pattern 24 and 28 respectively, and appear to differ among each other only in 1st and 2nd person plural forms: (28d) has [-i̯e-] as "suffix", while (28c) has only [-e-] on the same position. Since the theme vowel is *–e* for both of these patterns, and since form (28d) (i.e. ending pattern 28) represents verbs whose infinitive ends in *–i̯e* (i.e. *scrie* 'write') while the other represents verbs whose infinitives end just in *–e*, I argue that the two forms are identical due to *i* in [-i̯e-] being part of the invariable stem and not a specific realization of the theme vowel (which we also asume to be part of the stem but which is generally subject to alternation). This means that Guțu-Romalo (1968: 196-197) wrongly posited pattern 28 to be diffrent than 24, due to a wrong separation of the stem from the endings (i.e. the segmentation is *scri-e* instead of *scr-ie*). There is thus no diffrence between forms (28c) and (28d), since verbs represented by pattern 28 are actually also represented by pattern 24.

What is left now is to show how pattern (28b) and (28c) are connected. These two patterns differ in 1st person singular and plural and 2nd person singular. We have already mentioned in this chapter that Chițoran (2002a) and Feldstein (2004: 183) take an underlying /u/ to be a 1st person marker, which only surfaces when following a consonat cluster. Form (28c) (and d) displays this in 1st person singular and plural and it does so because it represents verbs which end in a consonant cluster (more precisely, stop+liquid cluster), while form (28b) (and a) does not display this underlying /u/ because it does not represent verbs whose stems end in a stop+liquid cluster. As for the diffrence in 2nd person singular forms of the two ending sequences, it is clear that the already assumed underlying 2nd person marker /i/ surfaces as a vocalic *i* in one context and palatalization in the other context.

If we then assume Ø+[-*e*] in the 3rd person singular of all three possible surface forms of the 10 ending sequences identified by Guțu-Romalo (1968) to actually be [-*e*-]+Ø instead (i.e. the –*e* is actually the theme vowel and not a 3rd person singular marker), we can say that the 3 surface forms fit into the segmentation and ending list proposed by Feldstein (2004: 183), with the "suffixes" being the theme vowel undergoing the processes defined in section 3.2 and exemplified in 3.4. This is shown in (29), with the hyphen delimiting in this order: stem, theme vowel, tense marker, number marker, person marker.

(29) stem-*e*-Ø-Ø-*u*
stem-*e*-Ø-Ø-*i*
stem-*e*-Ø-Ø-Ø
stem-*e*-Ø-*m*-*u*
stem-*e*-Ø-*t*-*i*
stem-*e*-Ø-*u*-Ø

So far, we've offered an account that reduces Guțu-Romalo (1968: 196-197)'s 10 ending sequences for verbs with infinitives in –*e* to one underlying form, and 3 surface forms.

4.1.2 Verbs with theme vowel –*i* and –*î*

We now turn our attention to the 7 types of verbs having theme vowel –*i*. We delimit those patterns that represent verbs which receive the stem extension –*esc*– from those representing verbs which receive only the theme vowel –*i*. Thus, we have

patterns 13-16 employing the theme vowel *–i* and 17-19 employing the *–esc–* extension.

Patterns 17 to 19 display only 2 surface forms given in (30), where 17 and 19 share (30a) and 18 is represented by (30b).

(30)

a.	b.
[-*é*sc-]+Ø	[-i̯*é*sc-]+Ø
[-*é*ș-]+[-^{i}]	[-i̯*é*ș-]+[-^{i}]
[-*é*ș-]+[-e]	[-i̯*é*ș-]+[-e]
[-*í*-]+[-m]	[-*í*-]+[-m]
[-*í*-]+[-ț^{i}]	[-*í*-]+[-ț^{i}]
[-*é*sc-]+Ø	[-i̯*é*sc-]+Ø

The only diffrence between forms (30a) and (30b) lies in an additional *i̯* (actually an [j]) that precedes the extended suffix *–esc–*, when this suffix surfaces. This diffrence can be explained if we look at what verbs are given by Guțu-Romalo (1968: 196-197) to represent pattern 18, namely *alcătui* 'compose'. Although the verbs we are discussing now have *–i* as theme vowel, since we assumed the theme vowel to surface after the extended suffix, the *i* before *–esc–* in pattern 18 (or form (30b)) is not a realization of the theme vowel, but rather an epenthetic glide resulted from the resolution of the hiatus between the final *u* of the stem (based on segmenting the infinitive as *alcătu-i*) and the *e* of the extended suffix. Thus, patterns 17-19 are argued to share the same underlying pattern given in (31) in the same style as in (29).

(31) stem-*esc-i*-Ø-Ø-*u*
stem-*esc-i*-Ø-Ø-*i*
stem-*esc-i*-Ø-Ø-Ø
stem-*esc-i*-Ø-*m-u*
stem-*esc-i*-Ø-*t-i*
stem-*esc-i*-Ø-*u*-Ø

Regarding the positive vs. negative realization of the extended suffix, Feldstein (ND:9) notes that when it is unstressed it gets deleted and only the theme vowel surfaces. This is what happens for 1st and 2nd person plural forms of verbs which receive any of these stem extensions (i.e. *–ez*, *–esc*, *–ăsc*).

Regarding the status of [-*ésk*-] and [-*éșt*-], in the light of the alternations discussed in chapter 3 (particularly palatalization of cluster *sk*), it is clear that the

second is a morphologically conditioned (by the following 2nd person marker *–i*) but phonologically restricted allomorph of the first. Similarly, in the light of the diphthongization process discussed in 3.2, [-*e̯áz*-] is the morphologically conditioned but phonologically restricted allomorph of [-*ez*-].

A further argument to confirm that what appears as 3rd person singular desinence in Guțu-Romalo (1968)'s analysis is actually a realization of the theme vowel, which indirectly confirms Feldstein (2004)'s segmentation and identification of tense, number, and person markers (in the indicative present, at least), is that the presence of [-*e*] in the 3rd person singular form of verbs having the theme vowel *–i* (with or without *–esc–*) can be described as a lowering of the high theme vowel to mid *–e*. Feldstein (2004: 184) argues that the theme vowel either gets lowered or raised to reach mid *e* or ə in the 3rd person. If it were not tied to the theme vowel (i.e a realization of it) and the final surface segment in the 3rd person desinence were a person marker, then there would be no way to analyze it, no way to determine which is the underlying form.

Looking now at the patterns representing the verbs with the theme vowel *–i* but without *–esc–* (patterns 13-16), we see that patterns 15 and 16 coincide (32a), while 13 and 14 differ in a few forms. (32b) represents pattern 14 and (32c) represent pattern 13.

(32)	a.		b.		c.	
		Ø+ Ø		Ø+ [-i̯]		Ø+ Ø
		Ø+ [-^{i}]		Ø+ [-i̯]		Ø+ [-^{i}]
		Ø+ [-e]		Ø+ [-i̯e]		Ø+ [-ă]
		[-*í*-]+[-m]		[-*í*-]+[-m]		[-*í*-]+[-m]
		[-*í*-]+[-ț^{i}]		[-*í*-]+[-ț^{i}]		[-*í*-]+[-ț^{i}]
		Ø+ Ø		Ø+ [-i̯e]		Ø+ [-ă]

The 3rd person singular and plural forms of (32b) can be accounted as the result of hiatus resolution between the back vowel *u* (*contribu-i*) of the stem and the high front theme vowel which was lowered to *e* giving rise to an epenthetic glide. More interesting is the presence of *–ă* in 3rd person singular/ plural in (32c). It may be accounted as a result of dissimilation between the vowel of the preceding syllable (*e* in *acop**e**r-i* 'cover') and the lowering into *–e* of the theme vowel *–i*. So the lowering does occur but results in the mid center *ə* instead of the mid front *e*.

The two patterns for verbs with theme vowel *–î*, 12 and 20, represent verbs which either take or don't take *–ăsc–* as an extension of the stem. The distinction between verbs which take *–î* instead of *–i* was initially phonologically conditioned, Feldstein (2004: 11) and Costanzo (2011: 97), but is now lexical. I also take the distinction of verbs which do and don't get extended suffixes to be lexically conditioned as well.

4.1.3 Verbs with theme vowel *–a*

Turning now our attention to the final group of verbs, those which have *–a* as theme vowel, we further split these into those which accept extended suffix *–ez–* (patterns 7-11) and those which do not (patterns 1-6). For the first group (with *–ez–*), we notice pattern 11 is no longer in accordance with the contemporary standard language (i.e. verbs like *crea* 'create' maintain the hiatus and do not resolve it with an epenthetic glide), so we will eliminate this pattern and treat its verbs as conjugating with patterns 7 or 8 (they are identical). The surface forms are given in (33):

(33)	a.	[-*é*z-]+ Ø	b.	[-i̯*é*z-]+Ø	c.	[-*é*z-]+Ø
		[-*é*z-]+ [-^{i}]		[-i̯*é*z-]+ [-^{i}]		[-*é*z-]+[-^{i}]
		[-e̯*á*z-]+[-ă]		[-i̯*á*z-]+[-ă]		[-*á*z-]+[-ă]
		[-ắ-]+[-m]		[-i̯*é*-]+[-m]		[-*é*-]+[-m]
		[-*á*-]+[-ț^{i}]		[-i̯*á*-]+[-ț^{i}]		[-*á*-]+[-ț^{i}]
		[-e̯*á*z-]+[-ă]		[-i̯*á*z-]+[-ă]		[-*á*z-]+[-ă]

In the case of (33b), it is clear that the *–i* preceding all suffixes (whether the extended or the theme vowel) is not an epethentic glide but part of the invariable stem. This leads to forms (33b) and (33c) to appear identical. Form (33c), representing ending pattern 10 for which *veghea* 'look after' is given as an example, only appears to not display the diphthongization of *–éz* into *–e̯áz* in the 3rd person, which is displayed by (33a) and avoided by (33c), I argue, due to the preceding semivocalic *i* in the stem which blocks the diphthongization. In reality, contrary to the posited *–áz* by Guțu-Romalo (1968), the verb does display *–e̯áz* in the 3rd person as can be seen in (34) and as is also identified by Barbu (2009: 112).

(34) *vegh-éz*
vegh-éz-i
vegh-e̯áz-ă
vegh-é-m
vegh-e̯á-ți
vegh-e̯áz -ă

The final diffrence between (33a), on the one hand, and (33b) and (33c), on the other, is the [-*ə́*-] vs. [-*é*-] in the 1st person plural. In (33a) and (33b), a raising of the theme vowel can be argued to have occurred, where the theme vowel in (33b) is morphologically conditioned (but phonologically restricted) to surface as mid front [e] instead of mid mid [ə], since it is closer to the high front *i* of the stem. In (33c), however, the *e* can be argued to be from the stem and not the raising of the theme vowel *–a* to front mid. Once more, the *–ă* in the 3rd person singular is a clear raising of the theme vowel under loss of stress as discussed in section 3.2.

Regarding the verbs in *–a* which do not receive extended *–éz*, patterns 3 and 6 (see appendix A) display a preceding *i* and *u* which come from the invariable stem rather that from some unknown interaction with the surfacing theme vowel. We also see a difference in surface form of the low theme vowel in 3rd person singular and 1st person plural when it is raised to mid. The surfacing of theme vowel *–a* as mid front [*e*] in pattern 6 can be argued, as we've done previously, to be morphologically conditioned and phonologically restricted by the underlying preceding front high vowel *i* from the stem, which surfaces as a glide to resolve hiatus.

4.2 Proposing a final division

Based on what we have seen and discussed so far, it becomes evident that the 3-fold ending segmentation together with the specific markers proposed by Feldstein (2004) (for the indicative present, at least) is the best (underlying) representation of Romanian ending sequences proposed so far. The only remaining descriptive division that should be made in the verbal domain is the one given below. It is in tune with the extended traditional one, only that this time the alternations have been accounted for.

(35) *stem-á* *stem-é* *stém-e* *stem-í* *stem-ǐ́*
stem-éz-a *stem-ésc-i* *stem-ắsc-î*

5. CONCLUSIONS AND FINAL REMARKS

In this work, I have looked at the Romanian verbal paradigmatic domain and shown the extent of its complexity, by quoting the many results in the ample structural analysis of Romanian morphology conducted by Guțu-Romalo (1968).

Employing contemporary insights into the phonology of Romanian given mainly by Chițoran (2002)'s works and arguing for Feldstein (2004)'s segmentation of the Romanian verb, we've seen that the majority of vocalic and consonantal alternations in the Romanian verbal domain, identified by previous linguists such as Lombard (1955), Moisil (1960), and Guțu-Romalo (1968) and listed by us in the second chapter and the appendinx, are in fact regular and phonologically or morphologically conditioned, so an account can be given and rules of formation can be postulated. These postulated rules then render unnecessary stem representations such as the ones proposed by Moisil (1960) or Guțu-Romalo (1968) which make use of additional symbols to mark variable letters.

These observations have enabled me to give an account for the many diffrent ending sequences which occur in the indicative present and attempt a reduction of the 38 sequences identified by Guțu-Romalo (1968) which was not based on the various homonymies employed by her but on underlying phonological representations, an approach in tune with Feldstein (2004)'s proposed cyclic derivation.

After this reduction, the analysis presented in this work came full circle in recognising that the division which best fits the Romanian verb paradigm is one in tune with the extended traditional, where the sole classification criterion is the lexical one which is able to account for the selection of one theme vowel (and non-thematic stem extension) over another.

Thus, we have shown that, although at a second glance Romanian morphology appears to be complex and rich with alternations, these alternations are mostly regular and phonologically accountable.

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APPENDIX

A. Guțu-Romalo (1968)'s 38 ending sequences for the indicative present

Tense	**1**	**2**	**3**	**4**	**5**
Infinitive	[-*á*]	[-*á*]	[-u̯*á*]	[-u̯*á*]	[-*á*]
Present indicative	Ø+Ø Ø+[-ʲ] Ø+[-ă] [-ă̑-]+[-m] [-*á*-]+[-ț ʲ] Ø+[-ă]	Ø+[-u] Ø+[-i] Ø+[-ă] [-ă̑-]+[-m] [-*á*]+[-ț ʲ] Ø+ [-ă]	Ø+ [-u] Ø+ [-i̯] Ø+ [-uă] [-u̯ă̑]+[-m] [-u̯*á*]+[-ț ʲ] Ø+[-u̯ă]	Ø+[-u̯ă̑]	Ø+ Ø Ø+ [-ʲ] Ø+ [-ă] [-ă̑]+[-m] [-*á*]+[-ț ʲ] Ø+ [-ă]
Example	*ara*	*afla*	*continua*	*plouă*	*preceda*

6	**7**	**8**	**9**	**10**
[-i*á*]	[-*á*]	[-u*á*]	[-i*á*]	[-*á*]
Ø+ [-i̯] Ø+ [-i̯] Ø+ [-*í*e] [-i̯*é*]+[-m] [-i̯*á*]+[-ț ʲ] Ø+ [-ie]	[-*é*z-]+ Ø [-*é*z-]+ [-ʲ] [-ę*á*z-]+ [ă] [-ă̑-]+[m] [-*á*-]+[ț ʲ] [-ę*á*z-]+[ă]	[-*é*z-]+Ø [-*é*z-]+ [-ʲ] [-ę*á*z-]+[-ă] [-ă̑-]+[-m] [-*á*-]+[-ț ʲ] [-ę*á*z-]+[-ă]	[-i̯*é*z-]+Ø [-i̯*é*z-]+[-ʲ] [-i̯*á*z-]+[ă] [-i̯*é*-]+[-m] [-i̯*á*-]+[-ț ʲ] [-i̯*á*z-]+[-ă]	[-*é*z-]+Ø [-*é*z-]+[-ʲ] [-*á*z-]+[-ă] [-*é*-]+[-m] [-*á*-]+[-ț ʲ] [-*á*z-]+[-ă]
apropia	*lucra*	perpetua	*sublinia*	*veghea*

11	**12**	**13**	**14**	**15**	**16**
[-(i̯)*á*]	[-î]	[-*í*]	[-*í*]	[-*í*]	[-*í*]
[-*é*z-]+Ø [-*é*z-]+ [-ʲ] [-ę*á*z-]+[-ă] [-i̯*é*-]+[-m] [-i̯*á*]+[-ț ʲ] [-ę*á*z]+[-ă]	Ø+ Ø Ø+ [-ʲ] Ø+[-ă] [-î̑-]+[-m] [-î̑-]+[-ț ʲ] Ø+ [-ă]	Ø+ Ø Ø+ [-ʲ] Ø+ [-ă] [-*í*-]+[-m] [-*í*-]+[-ț ʲ] Ø+ [-ă]	Ø+ [-i̯] Ø+ [-i̯] Ø+ [-i̯e] [-*í*]+[-m] [-*í*]+[-ț ʲ] Ø+[-i̯e]	Ø+ Ø Ø+ [-ʲ] Ø+ [-e] [-*í*-]+[-m] [-*í*-]+[-ț ʲ] Ø+ Ø	Ø+ Ø Ø+ [-ʲ] Ø+ [-e] [-*í*-]+[-m] [-*í*-]+[-ț ʲ] Ø+ Ø
crea	*coborî*	*acoperi*	*contribui*	*sări*	*fugi*

17	**18**	**19**	**20**	**21**	**22**
[-*i*]	[-*i*]	[-*i*]	[-*î*]	[-ę*á*]	[-*á*]
[-*é*sc-]+Ø [-*é*șt-]+[-ʲ] [-*é*șt-]+[-e] [-*í*-]+[-m] [-*í*-]+[-ț ʲ] [-*é*sc-]+Ø	[-i̯*é*sc-]+Ø [-i̯*é*șt-]+[-ʲ] [-i̯*é*șt-]+[-e] [-*í*-]+[m] [-*í*-]+[ț ʲ] [-i̯*é*sc-]+Ø	[-*é*sc-]+Ø [-*é*șt-]+[-ʲ] [-*é*șt-]+[-e] [-*í*-]+[-m] [-*í*-]+[-ț ʲ] [-*é*sc-]+Ø	[-ă̑sc-]+Ø [-ă̑șt-]+[-ʲ] [-ă̑șt-]+[-e] [-*í*-]+[-m] [-*í*-]+[-ț ʲ] [-ă̑sc-]+Ø	Ø + Ø Ø +[-ʲ] Ø +[-e] [-*é*-]+[-m] [-*é*-]+[-ț ʲ] Ø + Ø	Ø + Ø Ø + [-ʲ] Ø +[-e] [-*é*-]+[-m] [-*é*-]+[-ț ʲ] Ø + Ø
porni	*alcătui*	*lovi*	*hotărî*	*putea*	*tăcea*

23	**24**	**25**	**26**	**27**	**28**
[-*é*]	[-*é*]	[-*é*]	[-*é*]	[-*é*]	[-i̯*é*]
Ø + Ø Ø + [-^{i}] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø + Ø	Ø +[-u] Ø + [-i] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø +[-u]	Ø + Ø Ø + [-^{i}] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø + Ø	Ø + Ø Ø + [-^{i}] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø + Ø	Ø + Ø Ø + [-^{i}] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø + Ø	Ø+[u] Ø+[-i] Ø+[-i̯e] [-i̯e-]+[-m] [-i̯e-]+[-ț^{i}] Ø+[-u]
începe	*umple*	*face*	*aprinde*	*alege*	*scrie*

29	**30**	**31**	**32**	**33**	**34**
[-*é*]	[-*é*]	[-u̯*á*]	[-*á*]	[-e̯*á*]	[-e̯*á*]
Ø + Ø Ø +[-^{i}] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø + Ø	Ø + Ø Ø +[-^{i}] Ø +[-e] [-e-]+[-m] [-e-]+[-ț^{i}] Ø + Ø	Ø+[-u] Ø+[-i] Ø+Ø [-u̯ă-]+[-m] [-u̯*á*-]+[-ț^{i}] Ø+[-u]	Ø+[-u] Ø+[-i] Ø+[-ă] [-ă-]+[-m] [-*á*-]+[-ț^{i}] Ø+[-u]	Ø + [-u] Ø + [-i] Ø+ Ø [-*é*-]+[-m] [-*é*-]+[-ț^{i}] Ø + [u̯]	Ø +[-u] Ø + [-i̯] Ø+ Ø [-*é*-]+[-m] [-*é*-]+[-ț^{i}] Ø + Ø
rupe	*coace*	*lua*	*da*	*bea*	*vrea*

35	**36**	**37**	**38**
[-e̯*á*]	Ø	Ø	[-*á*]
Ø +[-m] Ø + [-i̯] Ø+ [-e] [-*é*-]+[-m] [-*é*-]+[-ț^{i}] Ø + [-u̯]	Ø +[-u̯] Ø + [-i̯] Ø+ [-i̯e] Ø +[-m] Ø +[-ț^{i}] Ø + [-u̯]	Ø + Ø Ø + [-^{i}] Ø+ [-e] [-*é*-]+[-m] [-*é*-]+[-ț^{i}] Ø + Ø	Ø+ [-u̯] Ø+ [-i̯] Ø+ [-ă] [-ă̋]+[-m] [-*á*]+[-ț^{i}] Ø+[-u̯]
avea	*ști*	*fi*	*preda*

B. Interactions between consonantal and vocalic alternations for the indicative present, as identified by Guțu-Romalo (1968)

Vocalic → / **Consonantal**	*ă̊/á*	*é/á*	*î/í*	*é/e̯á*	*ó/o̯á*	*ă̊/é/á*	ă/e	*á/ă*	*í/e*	*ú/ Ø*	*ó/o̯á /u*
[k] / [ʧ]				+	+			+		+	
[g] / [ʤ]				+				+			+
[t] / [ʦ]	+	+		+				+	+		+
[d] / [z]		+	+	+		+		+			
[s] / [ʃ]		+		+		+					+
[s (t)] / [ʃ (t)]											
[(ʃ) k] / [(ʃ) t]		+	+					+			
[(s) k] / [(ʃ) t]											
n / *Ø*											
b / *Ø*		+									

C. Guțu-Romalo's classification according to number of stem allomorphs and syncretism. Indicative present reduced and recompiled version

Stem allomorphs	**New subclass**	**Old subclasses**	**Stem syncretism**	**Examples**	**Verb total**
2	I	**1** I,II,VI; **2** III,X,XI, XIII, XV; **3** XII; **4** III	$s_1=s_3=s_4=s_5=s_6$, s_2	*acorda* 'award': *acord/z*	79
	II	**1** III,VIII.	$s_1=s_2=s_4=s_5$, $s_3=s_6$	*așez* 'I lay down', *așeaz*	10
	III	**1** IV.	$s_1=s_2=s_3=s_6$, $s_4=s_5$	*crăpa* 'crack': *crap, crăp*	13
	IV	**1** VII.	$s_1=s_2=s_4=s_5=s_6$, s_3	*dorm* 'I sleep', *doarm*	3
	V	**2** XVI, XVII; **3** IX,X; **4** III; **5** II.	$s_2=s_3=s_4=s_5$, $s_1=s_6$	*fugi* 'run': [fug], [fudʒ]	38
	VI	**1** X; **2** XX	$s_1=s_3=s_6$, $s_2=s_4=s_5$	*auzi* 'hear': *aud, auz*	7
	VII	**1** XI	$s_2=s_3=s_4=s_5=s_6$, s_1	*sufăr* 'I suffer', *sufer-*	1
3	I	**2** I, II, IV; **3** I.	$s_1=s_4=s_5$, $s_3=s_6$, s_2	*cert* 'I scold', *cerț-/ceart-*	19
	II	**2** V, VI; **3** II, VI	$s_1=s_3=s_6$, $s_4=s_5$, s_2	*las* 'I leave', *lăs-/laș-*	26
	III	**2** VII	$s_1=s_2$, $s_3=s_6$, $s_4=s_5$	*scol* 'I awake', *scoal/scul*	9
	IV	**2** VIII	$s_1=s_2=s_6$, $s_4=s_5$, s_3	*mor* 'I die', *moar-/mur-*	2
	V	**2** IX, XVIII.	$s_1=s_4=s_5=s_6$, s_2, s_3	*șed* 'I sit', *șez-/șad-*	3
	VI	**2** XIX.	$s_1=s_6$, $s_2=s_4=s_5$, s_3	*slobod* 'I free', *sloboz-/ sloboad-s*	1
	VII	**3** VII,VIII, XI; **4** II, IV; **5** I	$s_1=s_6$, $s_3=s_4=s_5$, s_2	*cos* 'I sew', *coș-/ coas-*	9
4	I	**3** III; **4** I.	$s_3=s_6$, $s_4=s_5$, s_1, s_2	*purta*	2
	II	**3** IV	$s_1=s_6$, $s_4=s_5$, s_2, s_3	putea	1