Romanian Verbal Desinences for Tense, Number, and Person

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1. Introduction

This paper proposes a somewhat unorthodox segmentation of Romanian verbal desinences, in order to show that a number of categories can be treated as being discrete, rather than syncretic and unanalyzable. In virtually every case, a zero is opposed to a non-zero at a higher hierarchical level, and then differing non-zeroes are opposed at a lower level. In some cases, the selection of a morphophonemic representation for the non-zeroes is obvious and straightforward, while in other cases it presents problems and may have to be treated as suppletion.

For example, the unmarked present-tense (or non-past) can be considered to be represented by a zero-ending, in contrast to the non-zeroes of the past tenses. The past is split into imperfect and perfect, which, respectively, have the stressed *á* and *ú* desinences. While the *á* surfaces in almost all forms and is clearly visible, the *ú* is frequently subject to deletion, and surfaces primarily in the non-sigmatic *e*-theme verbs. The number category is also split in a similar way: zero represents the unmarked singular, and the marked plural is divided into subtypes. However, while the non-zero subtypes of tense refer to imperfect/perfect, the non-zero subtypes of number redundantly point to categories outside number itself: either the preceding perfect morpheme (*ú*), in the case of plural *-ra-*, or the following person morpheme, in the case of *-m-*, *-t-*, and *-u-*. The person morpheme itself is also split into zero, for unmarked 3rd person, as opposed to non-zeroes for the other persons. In turn, the 1st- and 2nd-person endings are split into 1st-person *-u* and 2nd-person *-i*. Following the past tense endings, especially *-ú*, the person endings are subject to significant morphophonemic changes.

In the non-conjugated forms of infinitive, gerund, and participle, one may also note a parallel system of zero vs. non-zero endings. The unmarked infinitive uses a stressed zero, opposed to the non-zeroes of gerund and participle. The latter are opposed on the basis of both vowels and consonants, with the gerund's *-índ* vs. the participle's *-ut*.

It can be seen that all of the aforementioned desinences share certain basic similarities. All have a hierarchical structure, in which a zero vs. a non-zero opposition occurs at the highest level, corresponding to the opposition of unmarked vs. marked grammatical categories. At the lower level, there is an interplay of the prosodic feature of stress and the vocalic features of height, front-back, and rounding. Tense makes use of zero, stress, height, and rounding; person uses zero, front-back, and rounding. Number, however, uses the zero plus the major class features of obstruent, sonorant, vs. vowel. The non-conjugated forms use stress, rounding, plus the obstruent vs. sonorant oppositions.

The implications of the patterns found in the above desinences will be discussed, and it will be seen that the language really uses many signalling devices that have rarely, if ever, been pointed out in previous studies.

2. Basic Assumptions about Romanian Verbal Stems and Desinences

Using the process of commutation, I have attempted to analyze the Romanian verbal desinences into smaller component morphemes than the synthetic wholes that are usually posited in grammars (cf. the non-segmented set of desinences posited in Graur et al. 1966:

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253).[1] It has been easiest to demonstrate the existence of discrete desinences in the present tense, so I will start with my conclusions based on the present, and then discuss how they might be extended to other verbal forms.

Before getting to the desinences proper, I would like to state my basic assumptions about Romanian verbal stems. I assume that one can operate with single basic stems, very similar to those proposed for Russian by Roman Jakobson, in his 1948 paper on Russian conjugation.[2] The Romanian verbal stems end in the vowels that are commonly known as theme vowels. When the stem-final theme-vowel comes in contact with a desinence vowel, modifications generally occur, such as the very common process of vowel deletion. As an example of how I view basic stems in their interaction with the commonly accepted desinences of Romanian conjugation, see Table 1.

Of course, the forms represented in Table 1 require a body of rules which specify deletions of vowel sequences, plus the loss of word-final *-i* and *-u*, as well as palatalizations before final *-i*. The existence of word-final *-i* and *-u* may not seem apparent in the exemplified verb *cînta*, but these vowels regularly surface after stressed vowels, in such verbs as *sta*, which has the 1st- and 2nd-person singular forms *stau*, *stai*. Since a

Table 1. Examples of Romanian Basic Stems plus Unsegmented Desinences, Followed by the Orthographic Forms (*cînta* 'sing', *bate* 'beat')

Singular		Plural	
cînt-á + u	→ cînt	cînt-a + m(u)	→ cîntăm
cînt-á + i	→ cînţi	cînt-a + ti	→ cîntaţi
cînt-a + Ø	→ cîntă	cînt-a + ú	→ cîntă
Singular		**Plural**	
bat-é + u	→ bat	bat-e + m(u)	→ batem
bat-é + i	→ baţi	bat-e + ti	→ bateţi
bat-e + Ø	→ bate	bat-é + u	→ bat

[1] The issue of limits on segmentation has been the subject of theoretical linguistic discussion in recent years. Janda and Joseph (1993: 253–35) suggest that a "hyperanalysis" of Modern Greek verb forms leads to a violation of Kiparsky's Elsewhere Condition, which specifies that a given input is disjunctively subject to either specific or general morphological rules, but not both. It would appear that this rejection of full segmentation results from the fact that specific morphological features (e.g., [+Plural]) end up occurring in more than one resulting segmented morpheme and, therefore, cannot be introduced disjunctively. However, my analysis of Romanian rests on the fact that each segmented morpheme represents a separate morphological distinction; i.e. there is only one distinctive person morpheme, although the number morpheme can redundantly express person. This would imply that the distinctive person morpheme is first introduced, only after which the preceding number morpheme is redundantly specified, which can be accomplished on a phonological basis (e.g., +Plural → *m*/__ +*u*, +Plural → *t*/__+*i*). In other words, the 1st person plural desinence *-m-* does not have to be introduced as a personal ending, in conflict with the terminal *-u*, but should be considered as distinctive for number, but only a redundant expression of person, and hierarchically ordered as such.

[2] Augerot (1974: 47) attempted to simplify the traditional treatment of Romanian conjugational endings by proposing "a single set of endings for each tense," but violated this principle when he stated that the 3rd person singular "ending for a-stems is /a/" but that "for e-stems and i-stems the 3sg. ending is /e/". This paper follows through on proposing a single set of endings, which requires the assumption that the 3rd person ending is a zero.

consideration of a large portion of the Romanian verbal corpus is beyond the scope of this paper, it will not be possible to justify the presence of every desinential element shown.

Using the process of commutation, one can divide the desinences shown in Table 1 into the components of number and person. The number morpheme occupies the first desinential slot, and is followed by the terminal desinence of person. In these present tense forms, the singular can be assumed to be represented by the zero desinence, in opposition to the non-zero segments *m*, *t*, and *u* of the three persons of the plural. Person also has a zero desinence, which represents 3rd person. First person is represented by *u*, and 2nd person by *i*. This has been shown in Table 2 below:

Table 2. Illustration of Number and Person Segmentation in Desinences

Singular					Plural				
Stem	**Number**	**+**	**Person**		**Stem**	**Number**	**+**	**Person**	
cînt-á	+	Ø	+	u	cînt-a	+	m	+	u
cînt-á	+	Ø	+	i	cînt-a	+	t	+	i
cînt-a	+	Ø	+	Ø	cînt-a	+	ú	+	Ø

Singular					Plural				
Stem	**Number**	**+**	**Person**		**Stem**	**Number**	**+**	**Person**	
bat-é	+	Ø	+	u	bat-e	+	m	+	u
bat-é	+	Ø	+	i	bat-e	+	t	+	i
bat-e	+	Ø	+	Ø	bat-é	+	u	+	Ø

In addition to showing discrete endings for number and person, this scheme provides a key for a structural explanation of why the 1st-person singular and 3rd-person plural forms sometimes have different surface desinences (as in the case of verbs which use the *a*-theme), in spite of the fact that the desinences both contain basic *-u*. These forms seem unusual when insufficient attention is paid to the fact that in the 1st-person singular, there is a zero desinence of number, followed by an *-u* of person; but, in the 3rd-person plural it is the reverse: there is an *-u* of number, followed by a zero of person. It can also be observed that verbs with front vowel themes (*e*- and *i*-) have theme-vowel deletion in both of these instances, while the back vowel themes (*a*- and *î*-) have different deletion rules, depending on the sequence of *-u*- and zero elements. Apparently, there are two ordered stages of vowel truncation, one of which occurs before the erasure of zeroes, and the other of which occurs after it, as shown in Table 3 below.

Table 3. Differential Deletion of *V–Ø–V* and *V–V–Ø* Sequences

1st Person Singular:

cînt-a + Ø + u → cîntá + u → cînt + u → cînt + ú → cînt

3rd Person Plural:

cînt-a + u + Ø → cînt-a + ú + Ø → cînt-a → cîntă

Prior to the erasure of zeroes, sequences of back vowels are subject to the progressive deletion of the second vowel. But, after the erasure of zeroes, all vowel sequences (regardless of backness or frontness) are subject to the regressive deletion of the first vowel. It may be added that these deletion rules only apply to sequences of unstressed vowels. They have rarely, if ever, been recognized previously, since they require an assumption of constant basic stems which end in a morphophonemic theme vowel in all forms. In the case of *VV* sequences where the first vowel is stressed, the process of glide formation can occur instead of deletion, as seen in cases where a stressed non-high vowel is followed by an unstressed high vowel. In the present tense, such examples can be seen in those stems which contain a single vowel, which must necessarily be considered to be stressed, e.g. 1st singular and 3rd plural *dau*, *stau*, in which there is no deletion, due to the stressed vowel.

3. The Structure of Number and Person Desinences

In the case of both the number and person desinences, we can see that there is a hierarchical split into a higher-level zero vs. non-zero opposition, and a lower-level sub-opposition within the non-zero set, shown in Figures 1 and 2, which follow.

Figure 1. Hierarchy of the Number Opposition

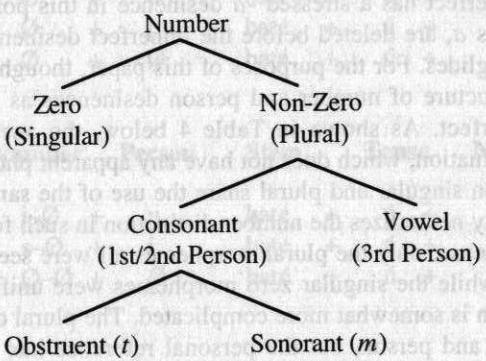
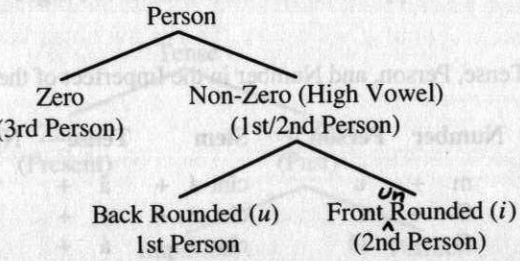


Figure 2. Hierarchy of the Person Opposition



In the case of number, the sub-oppositions redundantly refer to person within the subset of plural number. The major class features of obstruent, sonorant, and vowel are used to implement this opposition. It does not seem plausible to posit a single morphophonemic symbol for the category of "plural", which has the phonological invariant of being non-zero.

The hierarchy of the person morpheme is depicted in Figure 2. On the basis of number and person in the present tense, we can say that the terminal desinence of person does not contain any redundant reference to categories outside that of person itself, although there is a hierarchical split into a zero vs. non-zero, and lower-level non-zero opposition of *-u* vs. *-i*.

Thus, the non-terminal number opposition is correlated to the binary number distinction of "singular" vs. "plural" only on the highest zero vs. non-zero part of the hierarchy. Within the lower, non-zero part of the hierarchy, the desinences *m*, *t*, *u* contain redundant references to the desinence which follows: the terminal ending of person.

4. Tense

4.1. Imperfect

If all of the simple, non-compound tenses are considered, we should include the tenses traditionally called present, imperfect, and simple perfect. It is a rather trivial matter to conclude that the imperfect differs from the present on the basis of the fact that the present has a zero ending in the very first desinential position, immediately following the theme vowel, while the imperfect has a stressed *-á* desinence in this position. Note that back theme-vowels, such as *a*, are deleted before the imperfect desinence, while front vowel themes *e* and *i*, form glides. For the purposes of this paper, though, the main question is whether the same structure of number and person desinences as in the present can be posited for the imperfect. As shown in Table 4 below, the answer is yes, with one morphophonemic alternation, which does not have any apparent phonological motivation. Namely, the 1st-person singular and plural share the use of the same number desinence, *-m-*, which functionally neutralizes the number distinction in such forms as *cîntám*. In the least marked present tense, only the plural morphemes all were seen to bear a secondary reference to person, while the singular zero morphemes were uniform. However, in the imperfect, the situation is somewhat more complicated. The plural desinences continue to refer to both number and person, but the personal reference has been extended to the number desinence of the 1st person as well, which then loses the number distinction and generalizes the 1st person reference in the immediate post-tense position. As a consequence, the 2nd and 3rd persons of the imperfect oppose both number and person, but the 1st person opposes only person, and lacks the number opposition.

Table 4. Tense, Person, and Number in the Imperfect of the Verb *cînta*

Stem		Tense		Number		Person	Stem		Tense		Number		Person
cînt-á	+	á	+	m	+	u	cînt-á	+	á	+	m	+	u
cînt-á	+	á	+	Ø	+	i	cînt-á	+	á	+	t	+	i
cînt-á	+	á	+	Ø	+	Ø	cînt-á	+	á	+	u	+	Ø

4.2. Simple perfect

The case of the simple perfect, which is of only limited use in the standard language, presents great complexities, due to its many possible phonological realizations. My analysis of the behavior of verbal stems in the simple perfect suggests that it is formed by means of a morphophonemic stressed *-ú* desinence. When the stressed *-ú* is preceded by a verbal root plus theme-vowel *-e*, in a word such as *bate*, the *e* is deleted and the stressed *ú* surfaces in all forms of the simple perfect tense. The segmented simple perfect forms of the verb *bate* are shown in Table 5. Figure 3 presents the hierarchy of the tense opposition, analogous to the depictions of number and person in Figures 1 and 2. When preceded by other stem types, the stressed *-ú* is deleted, but passes its stress mark onto the preceding segment.

In discussing the imperfect, I noted that in the 1st-person singular, the number morpheme takes on reference to person, and alternates from basic zero to *m*. Table 5 illustrates that much more extensive and drastic changes appear to occur in the simple perfect, followed by the stressed *-ú* desinence. In order to understand the structural

Table 5. Segmented Simple Perfect Forms of *bate*

Stem		Tense		Number		Person	Stem		Tense		Number		Person
baté	+	ú	+	Ø	+	u	baté	+	ú	+	m	+	u
baté	+	ú	+	Ø	+	i	baté	+	ú	+	t	+	i
baté	+	ú	+	Ø	+	Ø	baté	+	ú	+	u	+	Ø

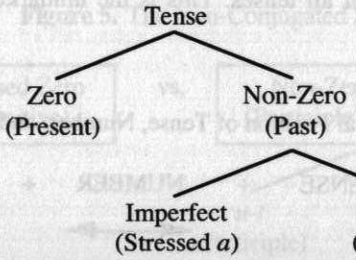
CHANGED TO:

Stem		Tense		Number		Person	Stem		Tense		Number		Person
baté	+	ú	+	i–Ø	+	u	baté	+	ú	+	ra–m	+	u
baté	+	ú	+	s–Ø	+	i	baté	+	ú	+	ra–t	+	i
baté	+	ú	+	Ø–Ø	+	Ø	baté	+	ú	+	ra-ú	+	Ø

SURFACING AS:

bătúi	bătúrăm
bătúşi	bătúrăţi
bătú	bătúră

Figure 3. Hierarchy of the Tense Opposition



significance of this phenomenon, let us recall that even in the least marked present tense, the number desinences radically differ from the desinences of person and of tense. The morphemes of tense and person are located in the extreme first and last positions of the desinential sequence, maintain a high degree of morphophonemic unity and lack redundant references to categories outside of tense and person proper. By contrast, the number morphemes, which occupy the middle desinential position, have a pattern of redundantly referring to the desinential morphemes which either precede or follow. Thus, the plural number morpheme of the present tense can redundantly refer to person, in addition to number itself. In the case of the imperfect, the primary morphophonemic complication is the replacement of the underlying singular zero by *-m-* in the 1st-person singular, which results in a neutralization of the number opposition in the 1st person. It is as if the redundant personal reference of the number morpheme has outweighed the primary number function in the 1st person, in forms such as *cîntám*.

In the simple perfect, we see a rather complex system of morphophonemic changes within the number morphemes, which directly follow the stressed *-ú*. The effect is opposite in singular and plural. Using the present tense as a point of reference, one can say that the singular number's zero desinence is unified for all persons, and that it contains no redundant reference to the 1st, 2nd, or 3rd persons. However, the plural number morphemes *m*, *t*, and *u*, do contain such redundant references to the three persons. In the simple perfect, I would like to suggest that there is a general insertion of secondary number morphemes, which add precisely the function which is absent in the basic forms which are manifested in the present tense. Thus, the plural number morphemes, which generally lack a unified desinence to signal "plural," insert the unified morpheme *-ra-*. Conversely, the singular, which has the basic unified number morpheme of zero, and lacks redundant signalization of person in the present tense, inserts precisely such redundant morphemes in the simple perfect: *-i-* for 1st-person singular, *-s-* for 2nd-person singular, and zero for 3rd-person singular. The new sequences which result from these insertions are, in turn, subject to the regular rules of deletion and simplification.

5. Structural Differences of Tense and Person vs. Number

The relationship of these desinences can be depicted as in Figure 4 below. Tense and person, the desinential extremities, each have two binary distinctions (or, perhaps a ternary distinction), and resist secondary, redundant reference to other grammatical morphemes. Number, the desinential center, can be contrasted to tense and person by the following points:

1. There is only a single binary distinction of number, which leaves room for additional redundancy, not seen for the tense and person morphemes. (See Table 6 on the following page for a summary of the number desinences in three tenses.)

2. The redundant signalization found in the number morpheme points to the category of person in the present plural of all tenses. This is the unmarked situation. The more

Figure 4. Structural Position of Tense, Number, and Person

STEM + TENSE + NUMBER + PERSON

Table 6. Summary of Number Desinences

Present		Imperfect		Simple Perfect	
Ø	m	m	m	i–Ø	ra–m
Ø	t	Ø	t	s–Ø	ra–t
Ø	u	Ø	u	Ø–Ø	ra–ú

marked the tense, the more likely that even the singular number morpheme will redundantly signal person and that singular or plural number will signal tense.

Note that the 1st-person singular *-m-* of the imperfect redundantly signals both 1st person and imperfect tense. In the simple perfect, the use of singular *-i-* and *-s-*, and plural *-ra-* desinences of number, all redundantly signal both the simple perfect tense as well as their respective persons.

3. Positions one and three—tense and person—vary only by being present or getting deleted. Position two—number—can also vary by being replaced and by the addition of inserted redundant morphemes.

4. Tense and person also differ markedly from number in their phonological representations. All three desinential positions share the use of zero and *u*, but both tense and person confine the non-zero element to a vowel, while number freely draws from all of the major phonological classes of obstruent, sonorant, and vowel. Tense and person share the use of the rounded/unrounded opposition and differ in the fact that tense couples rounding with height, but person couples rounding with front/back.

6. The Non-Conjugated Forms

The non-conjugated verbal forms of infinitive, participle, and gerund, display a very similar hierarchy of oppositions. The infinitive, with its zero-ending, is set off from the non-zero endings of the participle and gerund. The non-zero endings, in turn, also utilize the rounded/unrounded feature but, in contrast to the tense and person, it is not accompanied by height or front/back. Non-conjugated forms also manifest the use of segments belonging to all major classes, proper also to number, but neither tense nor person. However, while there is good reason to posit an unstressed zero in the conjugated forms, an equally good argument could be made to consider the non-conjugated zero of the infinitive, as being stressed. The non-conjugated endings are graphically shown in Figure 5 below, followed by a summary of the differential phonological oppositions which pertain to the tense, number, person, and non-conjugated morphemes, in Table 7 on the following page.

Figure 5. The Non-Conjugated System

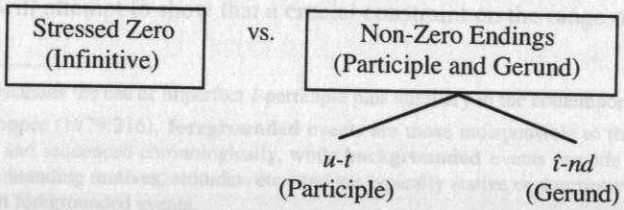


Table 7. Summary of Phonological Oppositions in Tense, Number, Person, and Non-Conjugated Desinences

Oppositions	Tense	Number	Person	Non-Conjugated
Zero and *u*	+	+	+	+
Stressed Zero	–	–	–	+
Rounded/Unrounded	+	–	+	+
Vowel Height	+	–	–	–
Front/Back	–	–	+	–
All Major Classes	–	+	–	+

7. Conclusion

The above analysis has demonstrated that an unorthodox method of segmenting the Romanian verbal desinences can reveal many structural patterns that would go completely unnoticed if the more traditional synthetic segmentation is followed. I would argue that the high degree of patterning can serve as an argument in favor of the segmentation I have proposed.

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