THE STRESS OF THE ROMANIAN VERB

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1. WORK ON ROMANIAN VERBAL STRESS

This paper has the goal of proposing morphophonemic basic forms and rules to account for the behavior of Romanian verbal stress. The issue of marking Romanian verb forms for stress is an important subject, which appears to be in need of considerable revision. Guțu Romalo's comprehensive study of Romanian morphology registers the various patterns that occur, without an attempt to establish single morphophonemic entities to predict the occurrence of accentual differences (Guțu Romalo 1968:151-9). Her stress paradigms indicate "root stress," regardless of whether the stress is on the root-initial syllable (e.g. *cúmpără* 'buy, 3rd pers. sing. and plur.') or the root-final (e.g. *deşteáptă* 'wake up, 3rd pers. sing. and plur.'). There is a traditional imprecision in distinguishing between verbal roots and stems, seen in Lombard and Gâdei's equation of root and stem (1981:I 38) and Corlăteanu's assertion that the suffix and theme-vowel following the root are part of the desinence (1978:168). Augerot states the rule (1974:48) that the Romanian verbal "stress regularly falls on the penultimate syllable, except for verbs like *face* 'do', for which the stem must be marked for stress." However, this also does not solve the problem of words such as *cumpăra*, which can also have antepenult stress in the present tense (e.g. *cúmpără*). If one assumes that both *face* and *cumpără* will require stress marks, it is necessary to state rules for the differential accentual behavior of these words in such forms as the infinitive and 1st and 2nd persons plural (e.g. *fáce*, but *cumpărá*, in the infinitive), in view of their accentual identity in other forms, such as the imperfect (e.g. *faceám* /fačám/ and *cumpărám*).

Although Rudes (1977 and 1980) presents an accurate description of the behavior of stress in the various classes of Romanian verbs, this approach simply registers the stress according to the traditional Romanian conjugational classes and grammatical forms. The three basic stress rules

(1977:405, 407-8, 414), while couched in the format of a generative linguistic rule, do not establish the basic units of stress, and offer little more than previous descriptions. The *vedea* class is treated as a different conjugational type than that of *bate* (called "*e*-class", p. 407), rather than a consequence of differential stress placement, and the distinctive stress type of *cumpăra* is attributed to a "diacritic" feature called "<D>" (pp. 405-6). Rudes' work does not answer the question of how the different stress patterns can be represented in terms of basic morphophonemic units. Thus, the basic, underlying differences between the stress patterns of the verbs *afla* 'find', *cumpăra*, and *bate* are explained by Rudes in terms of the differing conjugational classes of *afla* and *bate*, on the one hand; and where this traditional classification does not suffice to explain the difference (e.g. *afla* vs. *cumpăra*), a new label is created (non-"<D>" vs. "<D>"). Rudes' work appears to exemplify the methodology of avoiding both the creation of morphophonemic basic forms, and morphophonemic rules which refer to phonological, rather than morphological environments (see Kasevič 1986:20 for discussion). In contrast, our approach proceeds from the notion of a morphophonemic basic form, if possible, and attempts to use the simplest environment to indicate the environment of the rules which derive the surface forms. All things being equal, the simpler rule will be one which can make reference to a phonological environment, but this does not exclude the use of a morphological environment, where a phonological one produces no meaningful generalization and turns into a mere listing of different environments, based on accidental phonological factors.[1]

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[1]   As an example of an ill conceived phonological rule, which is merely a collection of disconnected environments, we may cite Ruhlen's attempt to consider Romanian sigmatic verbs as "phonologically conditioned" (1974:189); see also Klingebiel (p. 326) on this point. The opposite instance, in which a morphological environment should be replaced with a phonological one, can be exemplified by Rudes' use of the environment "e-class" (1977:407) or

2. THE CLASSIFICATION OF ROMANIAN VERBAL STRESS FROM THE PERSPECTIVE OF SURFACE

FORMS.

Before presenting details about the underlying mechanism of Romanian verbal stress, it will

be useful to review the various categories of surface verbal stress. This will permit an overview

of the entire situation, and will demonstrate that no satisfactory explanations of this apparently

capricious accentual behavior have been given as yet.

The general methodology used in the Romanian verbal stress classification of Lombard

(1954:46-8) provides a starting point for our review, although several details must be changed to

increase the accuracy of the classification. Lombard starts by listing four sets of grammatical

forms (called A, B, C, and D), which represent four differing categories of accentual behavior.

Next, four sets of verbal types are presented (1, 2, 3, and 4), on the basis of whether each set of

verbs has what Lombard terms accent on the root ("radical"), or on the ending ("terminaison"), in

each of the four sets of grammatical forms. The pairing between the sets of grammatical forms

and the sets of verbs is the basis of the classification, and the four verbal stress types could be

said to constitute the accentual paradigms of the Romanian verb.[2]   The first three types

(represented by the verbs *fura* 'steal', *teme* 'fear', and *unge* 'grease', respectively) are listed in de-

scending order of paradigmatic forms which have ending stress, while the fourth accentual class

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"diacritic" (p. 406), which could more economically be indicated by the use of the appropriate accented root vowel

(e.g. *báte* or *cúmpara*), as I will show in more detail below.

[2]   For details on the definition of the term "accentual paradigm," see Feldstein (1993:44-9).

(represented by the verb *forma* 'form') is presented as having stress that is exclusively on the ending.

In order to adapt the Lombard classification of Romanian verbal surface stress for the purposes of this paper, I would suggest that a number of modifications are necessary. However, in order to determine and correctly identify the possible locations of stress, it is necessary to start by stating my assumptions about the morphemic composition of the Romanian verb itself. I assume that virtually every Romanian verb can be represented by a morphophonemic basic form which preserves the unity of the stem. The vast majority of desinences are also assumed to be uniform for all verbs. The Romanian verbal stem, in its basic morphophonemic shape, is assumed to obligatorily consist of a root plus a theme vowel (either *-a*, *-i*,[3] or *-e*). The theme-vowel is subject to deletion before certain desinences, so that it does not appear in every surface form. Every verb form consists of a stem plus a desinence. Since the desinence minimally consists of a single zero morpheme (e.g. I assume that the infinitive is realized by a stressed zero desinence), there are surface forms which lack an overt desinence. In addition to the root and theme-vowel, the stem may optionally contain a prefix and/or a suffix. The optional prefix does not appear to be related to the stress representation. However, three important suffixes, which are located between the root and theme-vowel in the stem, have important properties related to stress. Interestingly, all of the three suffixes are in complementary distribution; each can be used with only one of the three theme-vowels. The consonantal suffix *-s-*, whose presence defines the class of so-called sigmatic verbs, is used only with a subset of *e*-theme verbs, which have a

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[3]   I accept Ruhlen's assumption that the so-called *-î* conjugation is really a subtype of *-i* (1973a:39), conditioned by a preceding *r*, and that the traditional *-ea* type is a subtype of *-e*, conditioned by stress on the theme-vowel *-e* (see Ruhlen 1974:187).

unique accentual paradigm. As I shall demonstrate in more detail below, it can be assumed this accentual pattern can be attributed to the presence of the -s- suffix. The -s- suffix is deleted before the majority of desinences, surfacing only in the simple perfect, pluperfect, and participial forms, which contain the basic morphophonemic ending {-ú}. The vocalic suffixes -ez- and -esk- occur with the theme-vowels -a and -i, respectively. These suffixes occur only under stress and are deleted when the word stress is assigned to any other syllable, as noted by Agard (1958:46) (e.g. suffix stressed *dictéz* 'I dictate', *citésc* 'I read'; but theme-vowel stressed *dictáți* 'you (plur.) dictate', *citiți* 'you (plur.) read'). In the light of these assumptions, several aspects of Lombard's accentual classification must be modified:

Firstly, Lombard (1954:46-8), along with many other traditional treatments of the subject, regards verbal suffixes, theme-vowels, and desinences as all being part of the "ending," in contrast to the "root." In a later work, Lombard states that desinences are added to the root and implies that he considers the root to be the equivalent of the stem ("terminaisons (appelées aussi désinences), ajoutées au radical (appelé aussi thème)" (Lombard and Gâdei 1981:I 38).[4] By contrast, I assume a stem that is not equivalent to the root.

The number of possible surface stress realizations in a Romanian verb form includes as many as three relevant accentual positions in the stem, plus one such position in the desinence. Thus, non-suffixed verbs with roots of more than one syllable, can have the following positions of surface stem stress:

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[4] Note that I have had occasion to criticize the Russian accentologist Fedjanina for a similar confusion of suffixal and desinential stress with reference to Russian stress (Feldstein 1980:135).

1. on the next-to-last root syllable (e.g. *términă),*

2. the final root syllable (e.g. *salútă),* or

3. on the theme-vowel (e.g. *salutá*).

The fourth possible stress position, that of desinential stress, is invariably on the first desinential syllable. Since I consider the theme-vowel to be the very last element of the stem, these four possible stress placements can be termed stem-antepenult, stem-penult, stem-final, and desinential. These four positions represent the maximum number, and they imply a non-suffixed root syllable which is larger than monosyllabic and a theme-vowel other than *-e*. A monosyllabic root implies fewer possible stress placements. Thus, stem-antepenult stress is less frequent than the other three types, since it does not occur in an unsuffixed verbal stem with a monosyllabic root, or a stem that is suffixed with *-ez-* or *-esk-*, or any stem with an *e*-theme. In other words, stem-antepenult stress can only occur in unsuffixed stems which have the theme-vowels *-a* (e.g. *términă* 'he completes') or *-i* (*contríbuie* 'he contributes'). It can be observed that the set of possible stress placements constitutes a sequence of three syllables to the left of the stem-desinence boundary and one syllable to the right of that boundary. The least frequent, and perhaps most marked stress placement, the stem-antepenult, is located at the farthest distance from the stem-desinence boundary. Thus, the stem-antepenult is the only stressable position without a location on a specific morpheme boundary; it is defined a being one syllable before the root + theme-vowel boundary, while stem-penult stress borders on either the theme-vowel or the *-ez-/-esk-* suffix, and both stem-final and desinential stress are on the stem-desinence boundary. An illustration of the inventory of possible stress positions, with examples, is found in table 1.

I. Maximal stress placements: disyllabic roots, no suffix, and theme-vowels -*a*, -*i*.

    A. Stem-antepenult: *términă* ({términ-a+Ø}), 3rd pers. sing. present.

    B. Stem-penult: *salútă* ({salút-a+Ø}), 3rd pers. sing. present.

    C. Stem-final: *termináţi* ({termin-a+t-i}, 2nd pers. plur. present.

    D. Desinential: *terminám* ({términ-a+á-m}), 1st pers. sing. imperfect.

II. Non-maximal number of stress placements with any other stem configuration, where stem antepenult stress cannot occur:

    A. Stress placements with unsuffixed monosyllabic roots.

        1. Stem-penult: *cîntă* ({kɨnt-a+Ø}), 3rd pers. sing. present.

        2. Stem-final: *cîntáţi* ({kɨnt-a-t-i}), 2nd pers. plur. present.

        3. Desinential: *cîntám* ({kɨnt-a-á-m}), 1st pers. sing. imperfect.

    B. Suffixes -*ez*-/-*esk*- with monosyllabic or polysyllabic root, theme vowels -*a* or -*i*.

        1. Stem-penult: *exagereáză* ({exager-ez-a+Ø}), 3rd pers. sing. present.

        2. Stem-final: *exageráţi* ({exager-ez-a+t-i}), 2nd pers. plur. present.
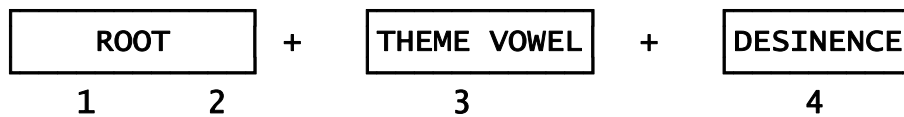
        3. Desinential: *exagerám* ({exager-ez-a+á-m}), 1st pers. sing. imperfect.

Table 1. Illustration of maximal and non-maximal numbers of stress placements in Romanian verbal stem types, including orthographic forms and underlying (morphophonemic) representation.
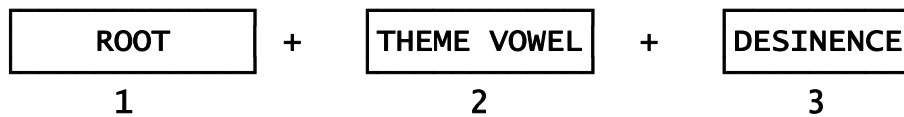
We can then state the following inventory of verbal stress positions, corresponding to the three divisions of table 1:
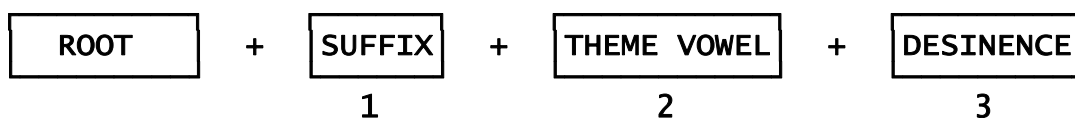
A. Unsuffixed roots of more than one syllable, where **1=stem-antepenult (e.g. *términă)*, 2=stem-penult (e.g. *salútă*), 3=stem-final (e.g. *terminá*), and 4=desinential (or post-stem) stress (e.g. *terminám*)**:

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┌──────────────┐       ┌──────────────┐       ┌──────────────┐
│     ROOT     │   +   │  THEME VOWEL │   +   │  DESINENCE   │
└──────────────┘       └──────────────┘       └──────────────┘
     1       2                3                     4
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B. Stress placements with unsuffixed monosyllabic roots, where **1=stem-penult (e.g. *cntă*), 2=stem-final (e.g. *cîntá*), and 3=desinential (or post-stem) stress (e.g. *cîntám)***:

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┌──────────────┐       ┌──────────────┐       ┌──────────────┐
│     ROOT     │   +   │  THEME VOWEL │   +   │  DESINENCE   │
└──────────────┘       └──────────────┘       └──────────────┘
      1                      2                      3
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C. Suffixes *-ez-/-esk-* with monosyllabic or polysyllabic root, theme vowels *-a* or *-i*, where **1=stem-penult (e.g. *dicteáză*), 2=stem-final (e.g. *dictá*) and 3=desinential (or post-stem) stress (e.g. *dictám)***:

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┌──────────┐     ┌────────┐     ┌──────────────┐     ┌──────────────┐
│   ROOT   │  +  │ SUFFIX │  +  │  THEME VOWEL │  +  │  DESINENCE   │
└──────────┘     └────────┘     └──────────────┘     └──────────────┘
                     1                 2                     3
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It is clear that Lombard's failure to clearly distinguish between the concepts of root and stem must be corrected by the scheme presented above. In addition, Lombard's fourth set of

grammatical positions (called D) must be split into two types. Lombard used it to refer to stress either on the theme-vowel or the desinence. Since both constitute the "ending" in his scheme, a single type could be used by him for these two different positions of stress. However, since a given verb may have a combination of stress on the theme-vowel in some forms, and on the desinence in other forms of Lombard's grammatical set D, I believe that a surface classification of Romanian verbal stress must split type D into two types, which I shall refer to as types D and E. The set of forms called D implies a possible realization of stress on the theme-vowel, but set E invariably has desinential stress, as illustrated below in table 2.

Since I am separating theme-vowel (i.e. stem-final) stress from desinential, I assume desinential stress for *e*-theme verbs (e.g. *vedea* 'see' and *bate* 'beat') in the grammatical categories I assign to type D: the participle, simple perfect, and pluperfect, which all have the stressed desinence *ú* on the surface. However, I assume that *a*- and *i*-theme verbs experience the deletion of the morphophonemic {-ú} desinence in these forms, which results in surface theme-vowel stress, represented as stem-final in the following table. These differences do not appear in Lombard's work, due to the lack of differentiation between theme-vowel and desinential stress placements.

It should also be observed that Lombard treated *-ez-* and *-esk-* suffixed verbs as an entirely separate class (1954:47), since stress both on these suffixes and the theme-vowel was considered equivalent to desinential stress in his work and, as such, this class was said to represent ending stress throughout the paradigm, which made this a unique type. However, since I am defining these suffixes as constituting part of the stem, rather than the desinence, stress on *-ez-/-esk-* is

considered to be stem-penult, and this accentual paradigm is taken to be functionally equivalent to that of non-suffixed verbs, such as *cînta* and *saluta*.

The aforementioned modifications of Lombard's scheme lead us to a new classification of surface stress patterns of the Romanian verb, as shown in table 2:

A. Present/Subjunc.: Entire singular; 3rd pers. plural. Imperative	B. Present/Subjunc.: 1st/2nd plural. Infinitive.	C. Perfect: 3rd sing.; entire plural. Past Participle	D. Perfect: 1st and 2nd persons. Pluperfect	E. Imperfect Gerund

I. -*a* and -*i* theme verbs:

A. *cînta*, *dormi*, *dicta* (-*ez*-), *citi* (-*esk*-)

STEM-PENULT	STEM-FINAL	STEM-FINAL	STEM-FINAL	DESINENTIAL

B. *termina*, *contribui*

STEM-ANTE-PENULT	STEM-FINAL	STEM-FINAL	STEM-FINAL	DESINENTIAL

II. -*e* theme verbs

A. vedea

STEM-PENULT	STEM-FINAL	DESINENTIAL	DESINENTIAL	DESINENTIAL

B. bate

STEM-PENULT	STEM-PENULT	DESINENTIAL	DESINENTIAL	DESINENTIAL

C. merge (-*s*-)

STEM-PENULT	STEM-PENULT	STEM-PENULT	STEM-FINAL	DESINENTIAL

Table 2. Illustration of the major verbal stress patterns of Romanian.

It should be emphasized that table 2 represents a scheme of surface stress in the Romanian verb types, or a classification of the Romanian verb into five accentual paradigms, based on surface realizations. Next (section 3), we shall be more concerned with the basic, or morphophonemic representation of these surface facts. It will be seen that many of the stressed forms have a basic stress marking which is very different from the surface stress. For example, since a stressed zero element automatically retracts its stress to the immediately preceding syllable, a basic stress on a desinential zero element yields a surface stress which is stem-final. In addition, there are a number of basic forms that are best considered stressless at the underlying morphophonemic level, and which have stress assigned by a default rule. In spite of their underlying stresslessness, these verbs are shown with surface stresses in the above table. Generally speaking, the systematic properties of the above inventory of surface stress patterns can appear enigmatic and complex, until the underlying mechanisms which govern this accentual behavior are revealed. A discussion of these mechanisms will be presented next.

3. THE MORPHOPHONEMIC BASIS OF ROMANIAN VERBAL STRESS

In this section, the general methodology for marking Romanian verbal stress on the underlying level will be introduced. A number of basic stress types will be considered, but a more comprehensive review of all stress situations can be given only in conjunction with a full re-evaluation of the Romanian verbal desinences, since the morphophonemic representation of desinences is closely linked to the question of verbal stress.

Our goal for the establishment of a Romanian verbal stress system is to mark verbal basic

stems and desinences for stress in such a way that morphophonemically stressed verb forms can

derive the multiplicity of their ultimate surface forms. It will be shown that such basic

morphophonemic stems can occur in three prosodic varieties: with either no underlying stress

marks, with a single such underlying mark, or with a maximum of two. The stress applied to

forms with no underlying mark can be referred to as default stress. Since there have been

conflicting assertions about the nature of the Romanian verbal default stress, it will be useful to

first review some of the issues that have been discussed by scholars.

A. THE NATURE OF THE DEFAULT STRESS OF THE ROMANIAN VERB.

Garde (1968:97) has divided languages with stress accent into two "large categories," based

on whether "the determination of accentual placement" relies on purely "phonological data," or

whether stress placement is determined on the basis of grammatical information. Languages of

the first category, usually known as "fixed-stress languages" (p. 98), do not have stress markings,

or accentual features on individual morphemes. On the other hand, languages of the second

group, termed "free stress languages" (Garde 1968:98), do have morphemes which possess

"accentual characteristics" (p. 110).

In describing the stress of these two types of languages, it is tacitly assumed that the most

frequent and unmarked accentual paradigm is one with immobile stress, and that it is inherently

simpler and linguistically more economical to to treat a paradigm as immobile, rather than as

mobile. In this connection, let us observe the important fact that a given surface pattern of stress

is not always unambiguously mobile or immobile, since the point of reference for immobility can be either stress on a constant morpheme, or stress on a constant syllable, counting from word-initial or word-final. Garde uses Polish examples to illustrate that the usual Polish accentual paradigm can be defined as immobile only if one defines the stress as penultimate, since this characterization fits all of the forms of the accentual paradigm (e.g. *teléfon* nom. sing., *telefonámi* instr. plur., etc.). Note that this definition presupposes the entire word, rather than the stem or a single morpheme as the frame of reference. I shall henceforth refer to such a phonologically determined stress as a default stress. Russian, in contrast to Polish, is used by Garde to illustrate a language in which an immobile paradigm can only be defined as such if the immobility is understood as a constant stress on a given morpheme (e.g. *telefón* nom. sing., *telefónami* instr. plur., pp. 138-9). We can add that the stress of Russian words which lack any prosodically marked morphemes (e.g. *gólovu* 'head', acc. sing.) is phonologically stressed, similar to the stress placement of Polish (cf. Garde 1978:373), a situation called "accent récessif s'il n'y a pas de morphème fort."

I would submit that the Romanian verb manifests present tense accentual paradigms of three basic types with respect to Garde's distinction between languages with default and non-default stress systems. These can be illustrated as follows:

1. Immobile stress on a root morpheme throughout the present (e.g. *báte* 3rd pers. sing., *báteți* 2nd pers. sing.), parallel to Garde's Russian examples of stress in the word *telefón*. Let us assume that this is a case of stress which is marked on the root morpheme. Forms outside the present tense, however, can have desinential stress (e.g. *bateám*, 1st pers. sing. and plur. imperfect).

2. Immobile stress on the vowel which immediately precedes the final consonant of the word (e.g. *salút* 1st pers. sing., *salútă* 3rd pers. sing., *salutáți* 2nd pers. plur.). These automatically determined stresses seem more parallel to Garde's Polish examples or to the Russian form *gólovu*. I assume that this is a case of a default stress which should be defined phonologically, without reference to the stress of individual morphemes. Again, if Romanian verb forms beyond the present tense are considered, departures from the default stress will be observed in the full paradigm of such verbs (e.g. *salutá* infinitive).

3. A combination of the above two cases, in which some present tense forms (e.g. the 3rd pers. sing.) act as if the root morpheme bears the stress (*términă*), but others (e.g. 2nd pers. plur.) manifest a default stress on the vowel which immediately precedes the last consonant of the word (*termináți*).

In other words, these examples point to the fact that the Romanian verb's stress is determined by the intersecting principles of stress marked on morphemes, in combination with a default stress which stresses the syllable preceding the word-final consonant. Notably, Garde's classification allows for hybrid stress systems of precisely this type (called "limited free stress" languages, p. 139). However, only Modern Greek and Provençal are given as examples of this stress type, while Garde categorizes Romanian as a purely free stress language, grouped with Italian and Spanish (p. 127).

Thus, the default stress represents stress placement that is predictable, in contrast to non-predictable stress, which must be marked on a specific vowel. How do we determine that a word form is to be considered unmarked for stress and that its stress placement is completely

determined by the default stress rule? In the most obvious case of default stress, both the stem and desinence of the given verb have phonologically predictable stress in all of their manifestations. Whenever a form departs from the default rule, however, it can be assumed that this must be due to the fact that at least one of the morphemes, in either the stem or the desinence, possesses an underlying stress mark. Since morphophonemic representation is defined as a uniform representation of a given morpheme, this prosodic mark then can be assumed to be uniformly present even in those paradigmatic forms which have a stress that happens to coincide with the default. For example, continuing our assumption that the Romanian verbal default stress is on the vowel which precedes the final consonant of the word, the third person singular verbs *báte* 'beats' and *véde* 'sees' could both be derived by the default stress rule. But, as soon as the first person plural present forms *bátem* and *vedém* are considered, it is clear that only the latter verb conforms to the default stress rule and, therefore, a stress mark must be used with the stem {bát-e+}, but not {ved-e+}.

B. Definitions of the Romanian default stress.

There has been some variation in scholars' definition of the Romanian default stress. Augerot (1974:48) states that "stress regularly falls on the penultimate syllable, except for verbs like *face* and *bate*, for which the stem must be marked for stress." This rule accurately assigns default stress only to verb forms which end in a vowel. Therefore, Augerot's formulation of this rule appears to be based on the assumption that Romanian verb forms all end in open syllables on the underlying level. Many forms which have surface forms which end in a consonant can be considered to have a final *-u* on the morphophonemic level, based on the fact that the same

desinence is realized as -*u* when preceded by an obstruent + liquid consonant cluster (e.g. /kɨnt/

is considered to be {kɨnt-u} on the basis of such verb forms as /aflu/). However, it is not

excluded that the morphophonemic shape of a Romanian verb form can end in a consonant. In

fact, Augerot (1974:52) hesitates about whether to refer to the participial ending as "/t/ or /tu/,"

and a similar ambivalence about whether the first person plural ending is -*m* or -*mu* occurs in the

work of Ruhlen (1973b:106-107).[5]

   Juilland and Edwards (1971:60) indicate that an automatically assigned stress would occur

only in cases of an unstressed stem followed by an unstressed ending, and would be realized as

"stem-final." Since the form *cîntă* is considered by Juilland and Edwards to have the desinence

-*ă*, rather than the stem-final theme-vowel followed by the zero-ending, "stem-final" means root-

final in this case. On the other hand, the final stress found in the first person plural of the present

tense (e.g. *cîntắm*) is not interpreted as a default, but as basic, underlying stress on the ending

-*ắm*. As I will show in more detail, I believe that the stress of the first and second persons plural

is just as automatic as that of the other persons.

   Rudes (1977:404) introduces a Romanian default stress rule which allows for both closed

and open syllables in final position. Since I am not assuming an absolute exclusion of closed

final syllables, I accept Rudes' default stress rule, which is stated as follows:

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[5] I have explained the syncretism of the first person singular and plural forms of the imperfect, which both end in

surface /-m/ (e.g. *cîntám*), by saying that they differ at the morphophonemic level, where the singular has the shape

{-m}, but the plural should be represented as {-m-u}.

"V → [+ stress]/ __ C₁(V) #"

The rule means that the default stress is assigned to the syllable that immediately precedes the stem-final consonant (or consonant cluster). Rudes' symbolism already allows for a variable number of consonants, which has no effect on the rule. In the system of Romanian conjugation which I am assuming, the final vowel may also consist of a sequence of more than one vowel unit, which is ultimately subject to rules of vowel deletion. Thus, I would slightly modify this rule to permit a variable number of both consonants and vowels in the word-final position, as follows:

V → [+ stress]/ __ C₁(V₁) #

However, this rule still means that stress falls on the syllable that precedes the stem-final consonant or consonant cluster.

By definition, whenever the entire stress paradigm of a given tense or verbal category can be correctly derived by the use of this rule, we shall assume that there are no underlying stress marks, and that above cited default stress rule applies. For example, the entire present tense of the verb *cînta* can be correctly derived with the use of the default stress rule:

Singular	Plural
cínt	cîntắm
cínţi	cîntắţi
cíntă	cíntă

In the case of a verb of the accentual class *termina*, *cumpăra*, etc., the stress agrees with the default only in the 1st and 2nd persons plural. In the other forms, the stress is found one syllable to the left of where the default stress rule would have placed it, as follows:

Singular	Plural
términ	terminắm
términi	termináți
términă	términă

I interpret this stress pattern as the result of the co-existence of two stress marks--an underlying lexically specified mark on the first syllable of the root {términ-}--plus the regular default stress which is assigned on the basis of the location of the stem-final consonant. Then, the main question is how the form with two stresses is to be interpreted. If we indicate the location of these two stresses as applied to the above forms, the rule which determines the dominant stress will become evident. This has been done in the following forms, with the eventually dominant stress emphasized:

Singular	Plural
t**é**rmín	t**é**rminăm
t**é**rmíni	t**é**rmináți
t**é**rmínă	t**é**rmínă

Notice that when the two underlying stresses are in contiguous syllables (the entire singular and the 3rd person plural), the first one predominates in the eventual surface form. On the other hand, whenever the two stresses are non-contiguous, as in the 1st and 2nd persons plural, the second stress is the one which predominates. It will be shown that the rule of stress contiguity is of major importance in the derivation of Romanian verbal stress, and can be stated as follows:[6]

When two stressed vowels are in contiguous syllables, the left stress predominates and the right stressed vowel becomes unstressed; conversely, when two stressed vowels are in non-contiguous syllables, the right stress predominates and the left stressed vowel becomes un-stressed.

A third situation can be seen in the verb *bate*, in which I assume a lexically marked stress on the only root syllable {bát-}. In this case, the default stress coincides with the underlying stress in the singular and 3rd person plural. However, in the 1st and 2nd persons plural, there are two contiguous stresses, and the first predominates, as we have seen above. This can be depicted as follows:

Singular	Plural
bát	bátém
báți	bátéți
báte	bát

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[6] A form of this rule was introduced for the Romanian imperfect tense by Augerot (1974a:52), who stated that "when the inherently stressed imperfect ending occurs with a stressed verb stem, the rightmost stress dominates." This was only applied to the imperfect and did not address the instances of both rightmost and leftmost stress predominance which occur in other forms.

In addition to these stress types, there are verbs which use the extended suffixes *-esk-* and *-ez-*, which only appear under stress (cf. Agard, pp. 46-7). If we assume that the these extended suffixes are always present in the basic stem (e.g. {vorb-esk-i+} for *vorbi* or {dikt-ez-a+} for *dicta*), the correct forms would be produced by considering that the stems bear no underlying lexical stress, and that the default stress simply applies as in the case of a verb without such a suffix that is unmarked for stress, such as *cînta*. Using the example of {dikt-ez-a+}, and applying the morphophonemic vowel change of *e → ea* before *a*, we obtain the following present-tense forms:

Singular	Plural
dictéz	dictéźắm (→ dictắm)
dictézi	dictéźáți (→ dictáți)
dicteáză	dicteáză

On the basis of the preceding examples, we can say that the Romanian present tense consists of three basic stress types:

1. unmarked stems, which are subject to the default stress, either with or without an extended suffix (e.g. *cînta*, *dicta*/{dikt-ez-a+}). The theme vowel may be *-a*, *-i* (*dormi*, *vorbi*/{vorb-esk-i+}), or *-e* (*vedea*/{ved-e+}. When the theme vowel is *-e*, it changes to *-ea* under stress, such as in the infinitive form *vedea*, which has caused surface-oriented traditional Romanian grammar to consider that this type is a separate conjugation type.

2. stems with an underlying stress mark two syllables to the left of the theme vowel ({términ-a+}). The theme vowel is always -*a* or -*i* in this case.

3. stems with an underlying stress mark one syllable to the left of the them. The theme vowel is always -*e* in this case (e.g. *báte*).

It can immediately be seen that the marked accentual types 2 and 3 are in complementary distribution, based on the different theme vowels that can appear with these two classes of verbs.

The above illustrations have shown how stress is assigned in the present tense. In the present, none of the desinences is morphophonemically marked for stress, which can be seen in the fact that default stress placement suffices to mark present tense stress with unmarked stems, and no desinential stress results.

The imperfect tense uses the stressed imperfect morpheme -*á*, followed by a variety of endings which represent number and person. The final desinential stress of the 3rd person singular, which cannot be derived by the default stress rule, demonstrates that the imperfect desinence must be considered to be morphophonemically stressed, as in the following imperfect paradigm of the verb *cînta*:

Singular	Plural
cînt-á-m	cînt-á-m
cînt-á-i	cînt-á-ţi
cînt-á	cînt-á-u

Note that a default stress does not coincide with all of the actual stresses of the imperfect paradigm. For example, the 3rd person singular has desinential stress, but the default would have yielded stress on the root vowel. In some cases, the assignment of a default stress leads to the incorrect stress. This situation can be avoided by considering by introducing the following principle of default application:

Default stress must be applied only in cases where the desinential portion of the word (i.e. following the stem-desinence boundary +) lacks another stress mark.

In the verb *cînta*, the basic stem {kɨnt-a+} is unmarked for stress. Therefore, the only stress mark in the imperfect tense paradigm is the one on the stressed imperfect desinence. Actually, the full basic stem could have been represented before the imperfect endings, yielding forms such as {kɨnt-a+á-m}, in which the first *a* would be subject to deletion before another *a*. In this case, representing the full undeleted sequence of vowels would make no difference to the derivation of stress, but when the contiguity of non-contiguity of stress must be calculated, it is important to observe that this calculation must be based on the presence of vowels before vowel deletion occurs. Therefore, we can say that the rule of stress contiguity/non-contiguity must be ordered before that of vowel deletion.

The infinitive form illustrates another case in which the desinential portion of the word has an underlying stress and, therefore, will block the assignment of a default stress. Since I assume

that the Romanian infinitive desinence is a stressed zero, due to the fact that the final vowel coincides with the theme vowel, yet is often stressed, special restrictions concerning stressed zero elements can be demonstrated. It should be noted that the zero does not occupy a position in the calculation of the contiguity of stress symbols. On the other hand, the stress which is retracted from a zero to a preceding syllable is treated like any other stress which serves as input to the rule of stress contiguity. Therefore, it is clear that the following two rules must be ordered as shown, with respect to each other:

    1. Retract stress from stressed zeroes to preceding syllable and erase zeroes.

    2. Rule of stress contiguity/non-contiguity, in the case of two word stress marks.

These steps can be illustrated for the infinitive forms of the verbs *cînta*, *termina*, and *bate*, which have the morphophonemic shapes {kɨnt-a+ǿ}, {términ-a+ǿ}, and {bát-e+ǿ}:

    1. Delete stressed zero and pass stress on to preceding vowel.

        {kɨnt-a+ǿ}   {términ-a+ǿ}   {bát-e+ǿ} →

        kɨnt-á   términ-á   bát-é

    2. Apply the rule of two contiguous or two non-contiguous stress marks.

        kɨnt-á   términ-á   bát-é →

        -------   termin-á   bát-e

It is clear that the default stress rule cannot apply to these forms (*cîntá, termina, báte*), since it would produce the incorrect stress in the first two cases (*cînta* and *termina*). The default stress rule, as stated earlier, is blocked on the basis of the underlying stress on a desinential vowel. Consequently, it must be ordered both before the stress retraction from zeroes and before the rule of stress contiguity/non-contiguity, yielding the following sequence:

    1. **Assign default stress only if there is no stress mark following the stem-desinence boundary.** For example, no infinitive or imperfect form will receive a default stress, due to the stressed desinences in both of these paradigms.

    2. **Retract stress from stressed zero elements.**

    3. **Apply rule of contiguity/non-contiguity.**

The stress of cînta is unchanged by rule 3, since there is only one stress; *termina* loses its initial stress, since its two stresses are non-contiguous, while *bate* loses its second stress, since the two stresses are contiguous.

    Our examination of the verbs *cînta*, *termina*, and *bate* in the present tense, imperfect, and infinitive has shown that the stress marking of any Romanian verb form differs for two primary stress domains: firstly, the portion which includes the stem; and, secondly, the desinential portion. Each portion differs in its paradigmatic use of stress. The basic morphophonemic stem itself may either be marked or unmarked for stress. If it is marked, the theme-vowel can predict the precise location of the underlying stress mark; i.e., if the theme-vowel is either *-a* or *-i,* the stress mark is located two syllables before the theme-vowel (e.g. {términ-a+}, {kontríbui-i+}, but if the theme-vowel is *-e,* the stress mark is on the vowel immediately preceding the theme-

vowel (e.g. {pre-fák-e+} 'transform'). The post-root portion of the verb consists of an optional

extended suffix immediately following the root (-*ez*-, -*esk*-, or the sigmatic element -*s*-, which

will be discussed in more detail below), an obligatory theme-vowel (-*a, -i,* or -*e*),[7] and a desinen-

tial portion, which contains segments for tense, number, and person.[8] Default stress applies if all

desinential morphemes lack a stress mark at that point in the application of the rules. When the

desinence consists only of one or more zeroes or vowels, default stress results in stress on the

extended suffix (-*ez*- or -*esk*-) or the final root vowel, if there is no such suffix. A consonantal

desinence results in default stress on the theme-vowel (e.g. *cîntáți).*

Therefore, we can say that in the first stress domain of the stem, the choice is between a

stress mark and no such mark; but in the second stress domain of the desinence, the choice is

between an underlying stress mark and a default stress mark. As a result of the interaction of

these two stress domains, any given verb form will at least have one stress mark, since even if

there is no underlying mark, a default stress will be assigned. However, as noted above, two

stress marks are also possible, in which case the rule of stress contiguity/non-contiguity applies.

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[7] As noted above, the traditional description of Romanian conjugation contains two more theme vowels: -*i̵*- (as in

coborî 'descend') and -*ea*-, as in *vedea* 'see', recognized here as manifestations of underlying -*i*- after *r*, and un-

derlying stressed *e*, respectively.

[8] Later, a segmentation of the desinence into subparts for tense, number, and person will be presented in more

detail. I disagree with the notion that the theme-vowel represents present tense (as in Belchiță 1970:174), since I

recognize an underlying theme-vowel in all verb forms, as evidenced by the -*e*- glide in the imperfect *bateam*, which

can be considered the same -*e* morpheme as in the present tense *bate(m)*.

This rule appears to work correctly, without the need to specify particular morphological situations, with the possible exception of the rare case of the third person singular of simple perfect of sigmatic stems, which will be dealt with in the next section.

4. STRESS IN THE SIMPLE PERFECT, PLUPERFECT, AND THE SIGMATIC STEMS

Outside of the small class of sigmatic stems, which can be said to possess the extended suffix -se- in their basic form, the stress pattern of the simple perfect and pluperfect paradigms presents no complications for the system outlined above. Let us first review the situation of these two tenses in the case of the three basic stress markings, after which we shall examine the exceptional behavior of sigmatic verbs.

I assume that the correct morphophonemic representation of the simple perfect desinence is -ú. This is based on the fact that this desinence either agrees with the theme-vowel (in the case of most theme vowels in -a, -i, or sigmatic -s-e; e.g. first person singular *cîntái*, *vorbíi*, *puséi*), or surfaces as -ú (in the case of non-sigmatic -e themes as well as consonantal, non-thematic stems; e.g. *bătúi*, *stătúi*). Thus, it can be assumed that when the stem-final theme is concatenated with the simple perfect desinence (-ú), either the former or the latter is deleted, following the general principle of deletion that often applies to sequences of two vowels.[9] Of course, this deletion

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[9]I assume that on the stem-desinence boundary of the Romanian verb there is a general morphophonemic deletion of one of the vowels in a VV sequence, except when the second vowel is stressed -á, as in the imperfect tense. In the large number of VV sequences which contain stressed -ú or unstressed -u as the second element, either the first or second vowel is deleted, according to a system of rules, which partly depend on whether the second vowel represents simple perfect tense, third person plural, or first person.

takes place only after the application of the rule of stress contiguity/non-contiguity, discussed

above.

When an unaccented basic stem, such as *cînt-a-*, is joined to the simple perfect ending *-ú*, the

stress on the latter desinence is the only one found in the word-form, since none of the

person/number endings bears a stress mark. In addition, no default stress is placed on the word,

in view of the fact that the desinential syllable *-ú* already has an underlying stress mark. Since

the *-ú* is eventually deleted after the *-a* theme-vowel, the stress is retracted to the theme vowel,

which represents the surface stress in all paradigmatic forms of the simple perfect, as follows:

Singular	Plural
1. cîntái	1. cîntárăm
2. cîntáşi	2. cîntárăţi
3. cîntắ	3. cîntáră

In the case of the two types of accentually marked stems, representing such verbs as {términ-a-}

and {bát-e-}, the desinential *-ú* will never be contiguous to the underlying stressed vowel of the

stem, since it is always separated by the theme-vowel (i.e. {términ-a+ú-} and {bát-e+ú-}).

Therefore, in verb classes which experience the retention of the theme-vowel and deletion of the

simple perfect *-ú* (i.e. *a-* and *i-*stems), the retracted stress on the theme-vowel will appear in the

entire simple perfect paradigm, as illustrated above in the case of the verb *cînta* (*cîntái*, *terminái*,

etc.). In the case of non-sigmatic *e*-theme verbs, the theme-vowel is deleted and stressed *-ú*

surfaces throughout the paradigm (*bătúi*, etc.).

The pluperfect represents much the same situation as the simple perfect, except that we are dealing with the two desinential morphemes {-ú-se}; the first desinence of this sequence can be identified with that of the simple perfect ending and the second one (*-se-*) represents anteriority. In each of the three regular stem types, the stress surfaces either on the first vowel of the complex pluperfect desinence, or the preceding theme vowel, in the case of the deletion of the first pluperfect desinential vowel e.g. *cîntásem*, *terminásem*, *bătúsem*, etc.

Sigmatic verbs present a rather unique accentual situation. I assume that the basic morphophonemic stem is of the type {pun-se-}, {mer-se-}, etc. The pre-sigmatic consonant is deleted in a very restricted set of environments, all of which contain the *ú* desinence (i.e. the simple perfect, pluperfect, and past participle), so that there must be a rule which triggers the deletion of *n-s → s*, whenever an *ú* follows the verbal stem. In all other environments, it is the *-s-* that is deleted (i.e. the present and imperfect tenses, the infinitive and gerund). Significantly, whenever the *-s-* is deleted, the root behaves as if it bears a lexical stress mark: e.g. *púnem, mérgem*, etc. It is the only stem type which admits no accentual variation, so I conclude that the stress behavior is linked to the *-s-* suffix, and that the transfer of stress back to the root vowel is a direct consequence of the *-s-* being deleted. At the morphophonemic level, some sort of stress mark should be placed on the *-s-*, similar to stress on a zero. Then, when the *-s-* is deleted, the stress will retract to the preceding vowel.

However, in those forms where the *-s-* is not deleted, and it is, rather, the pre-sigmatic consonant that gets dropped, there are some unusual instances of morphophonemic behavior which, in my opinion, can be accounted for by specifying a forward shift of stress in the case of

non-deleted -*s*-. A great deal of accentual variation has been registered for the simple perfect of

sigmatic verbs. Based on the statement of Lombard and Gâdei (1981:I35), the only absolutely

stable stress is found in the third person singular.[10] All other persons have competing stresses, as

follows:

<u>Singular</u>   <u>Plural</u>

mulséi ~ múlsei   múlserăm ~ mulsérăm

mulséşi ~ múlseşi   múlserăţi ~ mulsérăţi

múlse   múlseră ~ mulséră

   The steps required to derived the variant forms stressed on *é*, starting from a simple perfect

base form of {mulg-ś-e+ú-}, are (where -*ú* represents my assumed base form for the simple

perfect desinence):

   1. Deletion of g (e.g. *mulg-ś-e+ú-* → *mul-ś-e+ú).*

   2. Destressing of *ś* and forward stress shift (e.g. *mul-s-é+ú-).*

   3. Stress contiguity rule destresses *ú* (e.g. *mulsé+u-).*

   4. Deletion of unstressed *u* following stressed *é.* (*mulsé-)*

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[10]Curiously, Ruhlen (1973b:126) gives only stress on the *e*-theme vowel in his accentual paradigm of sigmatic verbs

in the simple perfect. This includes not only the known variants *spusérăm*, *spusérăţi*, and *spuséră*, but even (sic!)

spusé, which I have not seen cited elsewhere.

The other stress, the initial accent in such forms as *múlse*, *púse*, etc., can be derived from the intermediate forms *mulsé*, *pusé*, by the rule which readjusts the sonority of stressed non-high theme-vowels in final position.[11] Thus, final stressed *-á* in the simple perfect remains stressed, but is lowered to *-ă* (as in *cînt*), while final stressed *-é* is destressed, retracting its accent to the previous syllable.[12] The accentual variants of the sigmatic simple perfect, other than the stress on the theme-vowel *-e*, can then be viewed as being under the influence of the unmarked third person singular form.

5. CONCLUSIONS

This paper has demonstrated that much of the surface complexity of the Romanian verb can be reduced to three basic morphophonemic types, corresponding to unstressed stems, polysyllabic stressed stems, and monosyllabic stressed stems. Virtually all accentual interactions of stem and ending can be reduced to the questions of whether basic stem and affixed desinences have underlying stress or not, and whether a default stress occurs. Once the basic and default

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[11]See Juilland and Edwards (1971:67) for almost the identical statement ("the rule which prohibits the occurrence of /é/ in word final position accounts for certain unstressed Perfect endings, whose stress shifts back on to the stem, [smúlse] instead of *[smulsé]"), but without my assumption that this is due to an accentual marking on the *-s-*.

[12]Note that unstressed final theme-vowel *-i* also undergoes a modification, in the present tense, which results in the familiar surface *-e* ending of such verbs as *dormi*, *veni*. This is part of a pattern which raises the sonority of the weakest vowels in final position (e.g. high unstressed *i*), but decreases the sonority of the strongest vowels (e.g. non-high stressed vowels *-é* and *-á*). Note that this only applies to stem-final theme-vowels in conjugated forms. Thus, neither the imperfect (*cîntá*) is affected, since its final vowel is desinential and not the them-vowel, nor are infinitives.

stresses are considered, two possibilities can result-- either one stressed syllable occurs, or two are stressed. In the latter case, I have attempted to show that a principle of stress contiguity and non-contiguity determines which of the two stresses will be treated as dominant and eventually surface in the final output. With the stipulation that the sigmatic suffix -*s*- must bear an accentual mark, the rule of contiguity appears to hold and correctly explains the accentual variation of Romanian conjugation.

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