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1 Introduction

The stress pattern of Romanian has rarely been given formal examination of the sort that has frequently been given to Spanish (Den Os and Kager 1986, Roca 1990, Harris 1995, Rosenthall 1997, *inter alia*), despite the genetic similarity of the two languages. Recent work on Romanian by Chitoran (1996, 2001), Iscrulescu (2002), and Franzén and Horne (1997) has filled this gap to some extent, mostly within an Optimality Theory framework (Prince and Smolensky 1993, McCarthy and Prince 1995). In this paper, I offer an analysis of the Romanian stress pattern described by Chitoran (2001) and Iscrulescu (2002), within the bracketing framework developed by Idsardi (1992) and Halle and Idsardi (1995), a framework which has proved useful for the analysis of Spanish (cf. Harris 1995). As will be shown, the facts for Romanian are similar to those for Spanish, though there are differences, particularly with regard to quantity sensitivity. Issues presented here that are relevant for the analysis of Romanian stress may hopefully be extended to that of other Romance languages and beyond.

The organization of the paper is as follows. I begin in Section 2 with a description of the facts of Romanian stress. In Section 3, I offer a bracketing framework analysis that is similar to that suggested by Harris (1995) for Spanish, but which diverges from it in important ways due to differences both in the facts and in applications of the theory. Section 4 is devoted to two theoretical issues that arise in this analysis: the decision as to whether to exploit syllable boundary projection or edge-marking (4.1) and implications of having more than one stress-assignment algorithm within a language and when such a determination is justified (4.2). In Section 5, I consider two additional types of data that require further research and analysis: morphologically complex words (5.1) and numerals (5.2). Finally, in Section 6, I offer some conclusions.

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2 The Facts of Romanian Stress

As described by Chitoran (2001) and Iscrulescu (2002), Romanian primary stress has four possible surface instantiations—final, penultimate, antepenultimate, and preantepenultimate. This pattern is similar to the "three-syllable window" often proposed for Spanish (cf. Harris 1995). Chitoran (2001) considers the surface stress patterns to reflect two underlying patterns, which I will call stem-final and stem-penultimate. All the surface patterns observed can be explained in terms of the morphophonology of Romanian.

By proposing these two patterns, Chitoran (2001) allows Romanian substantives and verbs to be analyzed in the same manner, in contrast to Chitoran (1996) and Iscrulescu (2002), who require two separate stress algorithms for nominals and verbs. Although this is not impossible, it does not seem to be necessary for the analysis of Romanian. I will come back to the question of multiple stress algorithms within a language in Section 4.2.

As Chitoran (2001) shows, nouns most frequently exhibit surface penultimate (i.e., stem-final) or antepenultimate (i.e., stem-penultimate) stress, with stress never falling on the desinence vowels, which mark gender. On the other hand, stress can fall on thematic vowels in verbs. This distribution is unusual, because both of these affixes are assumed to indicate subclasses within the word class. Thus, the distinction is not easily captured as an inflectional-derivational distinction, as has been done by Chitoran (2001).

In keeping with Chitoran (2001), I propose a unified account of stress in Romanian. However, I depart from her analysis by proposing that the concept of cyclicity can explain the different surface stress patterns observed. I claim that Romanian has cyclic morphemes, which count in the computation of stress, and noncyclic morphemes, which do not count. Cyclic morphemes include thematic vowels in verbs and derivational suffixes. Noncyclic morphemes include gender desinence vowels in nouns, verb inflections, case endings, and the suffix *–its-* (which, as shown in (2c) below, is responsible for surface preantepenultimate stress). In this way, the problem of the inflectional vs. derivational distinction as a possible explanation disappears.

Relevant examples of verbs and nouns of the stem-final (1) and stem-penultimate (2) patterns are given below. The examples in (1b) have surface final stress, because they are part of a small group of nouns that lack a desinence vowel[1]. Since Iscrulescu (2002) does not exclude desinence vowels

[1]For Romanian, the relative rarity of such forms seems to indicate a strong dispreference for nouns lacking a desinence vowel. The historical development of some loanwords provides further evidence of this, with replacements of old forms without

from the domain of stress for nouns, these examples pose a problem for his analysis, since they cannot be analyzed as part of either of his two patterns.

(1) Stem-Final Stress
  a. *With surface penultimate stress*
    [kɨnt-á]sə[2] 'she had sung' [kə.már]ə 'pantry'
  b. *With surface final stress*
    [kɨnt-á] 'to sing' [mə.sə̨á] 'tooth'
  c. *With surface antepenultimate stress*
    [kɨnt-á]se-rəm 'we had sung' [ma.gérn]its-ə 'hovel'

(2) Stem-Penultimate Stress
  a. *With surface antepenultimate stress*
    [rúps-e]rə-m 'we tore' [ká.mer]ə 'room'
  b. *With surface penultimate stress*
    [rúp-e] 'he tears'
  c. *With surface preantepenultimate stress*
    [vé.ver]its-ə 'squirrel'

I adopt Chitoran's (2001) description of secondary stress assignment. According to this description, secondary stress surfaces on the initial syllable and on alternating syllables from left to right, avoiding clash with the primary stress[3]. Within Optimality Theory, secondary stress must be treated separately from primary stress, but, as we shall see, the bracketing framework used here allows a unified account for Romanian primary and secondary stress. Examples with secondary stress are given in (3) below.

(3) Secondary Stress
  a. [pà.ra.lè.lo.grám]u 'parallelogram'
  b. [pà.ra.lè.li.pi.péd]u 'parallelipiped'
  c. [dès.ko.tò.ro.s-éʃt]e 'gets rid of'

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a desinence vowel by newer forms with a desinence vowel and corresponding shift in stress (*e.g.*, Turkish *paSá* > Romanian *paSá* > *páS-* ↔ 'general').

[2]Brackets are used in all examples to indicate the assumed stress domain. Most examples here and in the next section are from Chitoran 2001:57–80).

[3]My intuition is that this secondary stress may be due to an initial dactyl effect, as often suggested for Spanish (Chitoran, p.c., concurs with this intuition due to more recent acoustic work). Nonetheless, I leave aside the decision as to whether or not the description given here accurately represents the Romanian facts and analyze the data as given, with the assumption that such a pattern could exist in a language.

An important observation to note is that for neither primary nor secondary stress does syllable weight seem to be a factor in determining where stress falls in a given word, despite the fact that Romanian's ancestor, Latin, did have a quantity sensitive system of stress assignment, and that the question of quantity sensitivity is under debate for Spanish (cf. Dunlap 1991, Harris 1995, Lipski 1997). Iscrulescu (2002), drawing upon examples from Petrucci (1999), shows that a large influx of words of Slavic origin in the early stages of the Romanian language, most of which retained their original stress, led to an altering of this system[4]. In Modern Romanian, it can no longer be said that stress is predictable based on syllable weight or even affected by it.

3 The Halle-Idsardi Framework and My Analysis

The bracketing framework used here is based on work by Idsardi (1992), Halle and Idsardi (1995), and Harris (1995). This framework represents stress as a metrical grid, determined computationally, and provides for a more satisfying analysis of the data, in that the preexisting OT analyses exploit constraints that lack predictive power (*e.g.,* NONFINALITY vs. FINALITY). The Halle-Idsardi framework includes several mechanisms for accounting for stress patterns cross-linguistically. These mechanisms are described below in (4–9)[5]. Their specific instantiation varies from language to language.

(4) *Line 0 Mark Projection*
Project a line 0 element for each syllable head

(5) *Syllable Boundary Projection Parameter*
Project the {left, right} boundary of certain syllables onto line 0

(6) *Head Location Parameter*
Project the {left, right}-most element of each constituent onto the next line in the grid

(7) *Edge-Marking Parameter*
Place a {left, right} bracket to the {left, right} of the {left, right}-most element in the string

(8) *Iterative Constituent Construction (ICC)*
Insert a {left, right} boundary for each pair of elements

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[4]While it seems clear from the patterns described above that Romanian's system of stress assignment is no longer quantity-sensitive, see Rudes (1977) for a different view on the matter. For discussion of the ongoing loss of Latin-inherited quantity-sensitivity in Spanish, refer to Roca (1990) and Lipski (1997).

[5]Definitions are drawn from Halle and Idsardi (1995).

(9) *Avoidance Constraint*
Prevent the placement of a bracket if it would yield a certain dispreferred pattern

The Romanian pattern is similar to that described by Harris (1995) for Spanish, but there are some differences in the facts and in my analysis. First of all, as we have seen, Romanian stress assignment seems not to be quantity-sensitive. Also, I consider secondary stress.

3.1 My Analysis

The parameter settings specific to Romanian constitute my analysis of the Romanian stress pattern within the Halle-Idsardi bracketing framework. The settings are given in (10).

(10) a. Line 0 Edge: LLR for "stem-final" morphemes
Edge: RRR for "stem-penultimate" morphemes
Avoid:)x) (no stress clash[6])
b. ICC: L-to-R
ICC: R-to-L[7]
Head: L
c. Line 1 Edge: RRR
Head: R[8]

Derivations for some words with only one stress are given in (11) below. In these, I represent the Romanian desinence vowels as noncyclic morphemes. As such, they are not present during the early part of the derivation but are added later, whether or not they surface.

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[6]Idsardi (1992) and Halle and Idsardi (1995) show that this particular avoidance constraint is typologically motivated because it prohibits a dispreferred stress pattern. In OT, this pattern can be excluded via the constraint *CLASH (cf. Kager 1994).

[7]Idsardi (1992) implements a similar double use of the iterative construction constraint for Chugash Alutiiq. Another possibility, suggested by Noyer, p.c., is that secondary stress applies noncyclically. This is plausible, though the data for morphologically complex words provide conflicting evidence.

[8]While there are other possible edge-markings that would yield the same result, Halle and Idsardi (1995) suggest that homogeneity (i.e., unidirectionality) of parameter settings is universally preferred and thus should be assumed if there is no evidence to the contrary.

(11) Examples with Primary Stress Only

		[dra.gost]★[9]	[ba.lon]	[bi.vol]★	[stẹa]	[pur.tʃẹa]
Line 0		x x	x x	x x	x	x x
	Edge-Marking	x x)	x (x	x x)	(x	x (x
	ICC: L-to-R)x) avoided	x x)	x (x	x x)	(x	x (x
	ICC: R-to-L	(x x)	x (x	(x x)	(x	x (x
	Head: L	x (x x)	x x (x	x (x x)	x (x	x x (x
Line 1	Edge: RRR	x) (x x)	x) x (x	x) (x x)	x) (x	x) x (x
	Head: R	x x) (x x) drá.gost	x x) x (x ba.lón	x x) (x x) bí.vol	x x) (x stẹá	x x) x (x pur.tʃẹá
Post-cyclic	Gender Desinence	drá.gost + e	ba.lón + u	bí.vol + u	stẹá	pur.tʃẹá
	Final *-u* Deletion[10]	-- drá.go.ste	ba.lón ba.lón	bí.vol bí.vol	-- stẹá	-- pur.tʃẹá

(12) Examples with Primary and Secondary Stress

		[po.li.kli.ni.k]★	[pa.ra.le.lo.gram]	[im.per.me.a.bil]★	[pa.ra.le.li.pi.ped]
Line 0		x x x x	x x x x x	x x x x x	x x x x x x
	Edge-Marking	x x x x)	x x x x (x	x x x x x)	x x x x x (x
	ICC: L-to-R)x) avoided	x x) x x)	x x)x x) (x	x x) x x x)	x x) x x)x (x
	ICC: R-to-L	(x x) x x)	(x x)x x) (x	(x x) x (x x)	(x x) x x)x (x
	Head: L	x x (x x) x x)	x x x (x x)x x) (x	x x (x x) x (x x)	x x x (x x) x x)x (x
Line 1	Edge: RRR	x x) (x x) x x)	x x x) (x x)x x) (x	x x) (x x) x (x x)	x x x) (x x) x x)x (x
	Head: R	x x x) (x x) x x) pò.li.klí.nik	x x x x) (x x)x x) (x pà.ra.lè.lo.grám	x x x) (x x) x (x x) ìm.per.me.á.bil	x x x x) (x x) x x)x (x pà.ra.lè.li.pi.péd
Post-cyclic	Gender desinence	pò.li.klí.nik+ə	pà.ra.lè.lo.grám+u	ìm.per.me.á.bil+u	pà.ra.lè.li.pi.péd+u
	Final *-u* deletion	-- pò.li.klí.ni.kə	pà.ra.lè.lo.grám pà.ra.lè.lo.grám	ìm.per.me.á.bil ìm.per.me.á.bil	pà.ra.lè.li.pi.péd pà.ra.lè.li.pi.péd

As shown in (12), the second application of the ICC is necessary for longer words, such as *ìmpermeábil*, so as not to yield the unattested stem-antepenultimate stress pattern.

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[9]The star (★) indicates that this morpheme belongs to the class of stem-penultimate morphemes. Presumably, both stem-penultimate and stem-final morphemes would be marked in some way under this analysis.

[10]Final *-u* (a masculine/neuter gender desinence in nouns and adjectives) is deleted unless the result would be ill-formed. Both Chitoran (2001:37-39) and Iscrulescu (2002) argue convincingly for this analysis, rather than denying its presence in the forms in which it does not surface. For Harris (1995), Spanish desinence vowels, which he represents between brackets, are not part of the stem but project a syllable head whether or not they surface.

4 Theoretical Issues

4.1 Edge-Marking or the Syllable Projection Parameter?

In this section, I will discuss a possible variation of my analysis that exploits the syllable boundary projection parameter rather than edge-marking to account for the marked vs. unmarked pattern, and argue why my earlier analysis is preferable.

Since the inception of this bracketing framework, its primary advocates have gone back and forth between edge-marking and syllable projection as the preferable explanation for data such as these in languages such as Russian and Greek. Idsardi (1992) uses edge-marking, while in Halle and Idsardi (1995) syllable projection is used. Halle (1997) uses both for different languages. The syllable boundary projection parameter, as applied to Romanian, could be interpreted to project a right boundary for idiosyncratically prespecified syllables. It is theoretically preferable, however, for this parameter to apply to entire morphemes, since this constitutes a more restrictive proposal. For Romanian, it would be possible to implement this parameter by projecting the right boundary of the rightmost element of specially marked morphemes rather than individual syllables. I do not address whether such an analysis is possible for the data from the other languages Halle and Idsardi have considered, but for these data this seems to be sufficient. The variation on my analysis that exploits the syllable boundary projection parameter, as defined in (5), is given in (13).

(13) a. Line 0 Project: R (specially marked morphemes)
Edge: LLR
Avoid: (x)[11],)x)
(Parsing proceeds as in (10b)
b. ICC: L-to-R
ICC: R-to-L
Head: L
c. Line 1 Edge: RRR
Head: R

Either variation on the analysis will yield the "three-syllable window" effect seen on the surface, since iterative bracketing will yield a binary constituent that maximally contains the rightmost grid mark of the stem and one

[11]This avoidance constraint is needed to prohibit the parsing of the final line 0 projection of morphemes in the marked pattern as a one-member constituent.

other. Line 0 of the derivation of the examples given in (12), using syllable projection, are given in (14) below.

(14) Line 0 under the Syllable Projection Parameter analysis

Line 0	[po.li.kli.ni.k]★	[pa.ra.le.lo.gram]	[im.per.me.a.bil]★	[pa.ra.le.li.pi.ped]
	x x x x	x xxx x x	x x x x x	x x xxx x
Project: R	x x x x)	x xxx x x	x x x x x)	x x xxx x
Edge: LLR	x x x x)	x xxx x (x	x x x x x)	x x xxx (x
(x) avoided				
ICC: L-to-R	x x) x x)	x x)x x) (x	x x) x x x)	x x) x x)x (x
)x) avoided				
ICC: R-to-L	(x x) x x)	(x x)x x) (x	(x x) x (x x)	(x x) x x)x (x
Head: L	x x	x x x	x x	x x x
	(x x) x x)	(x x)x x) (x	(x x) x (x x)	(x x) x x)x (x

I have offered two possible analyses for the Romanian stress patterns within this framework: one using syllable projection and one using edge-marking. Here, I outline why my original analysis is preferable.

On the one hand, syllable projection may seem more natural if we consider the stem-penultimate pattern to be the marked pattern, because under this analysis the words that follow the other pattern require no special marking. On the other hand, Idsardi (1992) successfully accounts for the Russian pattern using edge-marking, while under syllable projection, a relatively rare pattern in Russian ends up being counted as the unmarked case (Halle and Idsardi 1995, Halle 1997). Thus, the syllable boundary projection parameter as applied to Russian seems quite *ad hoc*. For Romanian, although Chitoran (2001) calls stem-final stress the "unmarked" pattern, it is unclear that this is the case. If neither pattern in Romanian is marked, then requiring less marking for one of the patterns is not actually a desirable result.

A framework generally makes stronger predictions if its mechanisms are limited. For this reason, an edge-marking analysis is preferable for Romanian since edge-marking is necessary in either account. Only through the addition of a number of other mechanisms to the theory, which end up looking more like traditional notions of extrametricality (such as those suggested by Idsardi 2004), can a successful analysis of data such as the ones presented here be accomplished without edge-marking.

Another concern is that an additional stipulatory avoidance constraint is necessary under the syllable projection analysis of the Romanian data. This last avoidance constraint, given in (13a) above, does seem to be as well-motivated as the one that is necessary in either account. This is not an impossible avoidance constraint, but all other things being equal it would be ideal to limit the number of avoidance constraints posited for a given language in the absence of a large amount of positive evidence.

Finally, the syllable projection account does not distinguish between syllable-marking and morpheme-marking. As described above, I assume that it is the morpheme that is marked. However, the same outcome would surface if specially stressed *syllables* received special marking, or if the syllable that is normally stressed were marked as *repelling* stress, similar to the concept of extrametricality. Nonetheless, formulations of extrametricality have generally assumed that only peripheral constituents can be extrametrical, despite analyses with nonperipheral extrametricality for Spanish and Italian by Den Os and Kager (1986) and to some extent Harris (1995) for Spanish. If we allow this interpretation, the framework becomes too powerful and less predictive.

Thus, the results for Romanian suggest that edge-marking provides a satisfactory analysis that allows all morphemes belonging to each of the two stress patterns to be treated in a unified manner, as they should be. As will be suggested later in Section 5, this analysis seems to work both for independent morphemes and for affixes that affect stress.

4.2 Multiple Stress Algorithms in One Language

Different stress rules for nominals and verbs have been proposed for Romanian by Chitoran (1996) and Iscrulescu (2002). This could be implemented in a number of ways.

Within Optimality Theory, constraint reranking has been suggested to account for two stress patterns within a language (cf. Rosenthall 1997, Pater 2000). This type of analysis requires the positing of cophonologies. Such an explanation weakens the predictive power of the theory, since Optimality Theory constraint rankings for a particular language are supposed to be valid across the board. Inkelas, Orgun, and Zoll (1994) argue convincingly that the positing of cophonologies within one language is undesirable, although it is allowable when there is a systematic distinction between categories. Still, there does not seem to be clear evidence of the clustering of several phonological differences into cophonologies in Romanian.

Chitoran (1996) analyzes the nominal-verbal distinction as a difference between iterative and non-iterative footing. Some of Idsardi's (2004) more recent work includes a mechanism for generating non-iterativity, but in the present framework, this distinction cannot be captured simply.

More problematic is the proposal that one set of words is assigned iterative footing in the form of iambs and the other in the form of trochees. This has been proposed explicitly for Spanish by Roca (1990) citing facts similar to those of Romanian. Others have suggested that for Spanish, nominal stress

is quantity-sensitive, while verbal stress is not (cf. Dunlap 1991). Again, these concepts are difficult to account for in the present framework.

Overall, while the presence of different constraints affecting the stress of different parts of the lexicon is not impossible, a unified account, such as that advocated by Chitoran (2001) and Franzén and Horne (1997), is preferable to a disjunctive account, such as that offered by Iscrulescu (2002). Given the absence of input to the contrary, a child learning Romanian is not likely to acquire two separate algorithms.

5 Additional Issues for Further Research

5.1 Morphologically Complex Words

As mentioned earlier, my claim is that Romanian has cyclic and noncyclic affixes. This is similar to the derivational vs. inflectional distinction described for Romanian by Chitoran (1996) and Franzén and Horne (1997). Both of these authors suggest that in Romanian derivational affixes are added at a cyclic level while inflectional affixes are added at a noncyclic level. However, the question of cyclicity does not necessarily make reference to an inflectional vs. derivational distinction[12]. The data requires further analysis and clarification, the beginnings of which will be outlined here.

Noncylic affixes are not included within the domain of stress. These include gender desinence vowels and case endings in nouns, yielding the desired outcome that only those nouns that lack a desinence vowel can have final surface stress (15); verb inflections (16); and the suffix *–its-*, derived from a feminine suffix in Slavic (17).

(15)	[kə.már]ə 'pantry'	[ká.mer]ə 'room'
	[drá.gost]e 'love'	[mə.s̡éá] 'tooth'
(16)	[kɨnt-á]se-rəm 'we had sung'	[rúps-e]rə-m 'we tore'
(17)	[vé.ver]its-ə 'squirrel'	[ma.gérn]its-ə 'hovel'

Cyclic affixes are included within the domain of stress. As such, they can follow the stem-final or stem-penultimate pattern, and this stress overrides that of the underlying root (cf. the Stress Erasure Convention of Halle and Vergnaud 1987). Examples of cyclic affixes include theme vowels in

[12]Halle and Vergnaud (1987) and Halle (1998) explicitly assume that a particular constituent's status as cyclic or noncyclic is idiosyncratic and presumably prespecified in an individual morpheme's lexical entry.

verbs, as shown in (18). Other suffixes exhibit the same two patterns of stress as the morphemes discussed elsewhere in this paper (19).

(18) a. *Stem-final root with and without final-stressed theme vowel*
[a.dún]ə 'she gathers' [[a.dun]á] 'she was gathering'
b. *Stem-penultimate root with and without final-stress theme vowel*
[á.pər]ə 'she defends' [[a.pər]á] 'she was defending'
c. *Stem-final root with and without penultimate-stress theme vowel*[13]
[a.prínd]ə 'that he light' [[a.prínd]e] 'to light'

(19) a. *Final-stressed suffixes*
[[durer]ós] 'painful' [[tʃer]ésk] 'heavenly'
b. *Penultimate-stressed ("pre-stressing") suffixes*
[[artíst]ik] 'artistic' [[varjá]bil] 'variable'

Examples of morphologically complex words that may carry secondary stress are given in (20) and (21).

(20) a. [ínim]ə 'heart' → [[ìnim]ós] 'courageous'
b. [númər] 'number' → [[numér]ik] 'numerical'
c. [[kréd]e] 'believe' → [[kred]í]bil] 'credible'

(21) [prijéten] 'friend' → [[prìjeten]ésk] *or* [[prijèten]ésk] 'friendly'

As shown in (21), native judgments differ as to whether secondary stress surfaces on morphologically complex words on the same syllable as in morphologically simple words or whether it surfaces on the syllable that would be stressed in the innermost morpheme in isolation. Because of this, it is unclear whether these data lend support for stress erasure (Halle and Vergnaud 1987) or preservation of inner stress cycles (Hammond 1989). More work is needed to answer this question.

5.2 The Special Behavior of Numerals

One other point of interest is an account of stress in numerals. They exhibit unusual behavior in Romanian. This situation is not uncommon cross-linguistically and is evidenced, for example, in Russian (Noyer, p.c.). Chitoran (2001) does not attempt to account for the behavior of numerals at all,

[13]Chitoran (2001) found no examples of stem-penultimate roots occurring with a penultimate-stress theme vowel.

but Franzén and Horne (1997) consider numerals as a separate system or level within the lexical phonology of Romanian[14].

Numerals exhibit a stress pattern that can surface up to six syllables from the end in the word (e.g., *ʃáptesprezetʃelea* 'seventeenth'). The underlying structure I suggest is provided by the bracketing in the two examples in (22) below.

(22) a. [[[ʃápt] + e] + [spre + [zètʃ]] + e + lea] 'seventeenth'
b. [[[dó] + i] + [spre + [zètʃ]] + e] 'twelve'

I will leave the specific account of numeral behavior as a question for further research, but I would like to suggest that the numeral morphemes are assigned stress separately and are joined in a sort of compounding operation. The resulting compound is then left-headed. Research on other sorts of compounding in Romanian, inasmuch as there are other compounds (they seem to be rare on initial examination), could shed some light on this question

6 Conclusion

This paper has shown that stress in Romanian can be successfully analyzed within the Halle-Idsardi bracketing framework. Although an Optimality Theory analysis is possible, that framework, along with an approach that posits prespecified metrical structure, allows too much freedom. Also, within the bracketing framework I employ, the existence of prespecified structure cannot properly predict the placement of secondary stress. In addition, I have shown that the notion of cyclicity can be invoked to explain differences between morphemes that are or are not within the domain of stress, independent of the notions of inflectional vs. derivational morphology. Finally, I have demonstrated that edge-marking provides a more satisfying analysis of the Romanian data than does syllable boundary projection.

[14]Chitoran, p.c., concurs with Franzén and Horne's (1997) description of the stress pattern of numerals, although she points out that native judgments vary somewhat here.

More data on morphologically complex words, including numerals and other compounds are needed. Such data may help resolve the issues regarding cyclicity and secondary stress.

Finally, this analysis draws Romanian in line with that of its historical relatives from Romance (cf. Harris 1995) and Slavic (cf. Idsardi 1992). Such a result is desirable in establishing the reality of the computational model. Ideally, historical change in stress systems could be considered as a change in setting of one or more of the parameters considered. It is, then, an encouraging result that the analysis of Romanian presented here shares features with prior analyses of Romance and Slavic languages, given that Romanian is the result of Romance in contact with Slavic (cf. Petrucci 1999). Thus, Romanian has inherited features from Romance and adopted others from Slavic not just in its lexicon and phonemic inventory, but also in its accentual system.

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