

Lithuanian Verbal Accentuation¹

by

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O.1 In the past, Lithuanian accentuation has been treated by a number of scholars; however, most investigations of the problem have centered around diachronic developments. The little synchronic work which has been done has dealt mainly with nominal accentuation, while verbal accentuation has either been neglected entirely or has been given the most superficial analysis. Therefore, it is the intended purpose of this paper to provide a synchronic analysis of Lithuanian verbal accentuation, in the course of which it will become evident that any significant synchronic treatment of verbal accentuation must take into account (at least) the following three factors:

- (1) unprefixated verbal forms
- (2) prefixed verbal forms
- (3) significance of categorial membership

1.1 As a preliminary to our analysis, some general discussion of the Lithuanian verbal system will be helpful. Beginning with intonation, we find that Lithuanian distinguishes three types: acute (´), which indicates a stressed syllable with falling tone; circumflex (~), which indicates a stressed syllable with rising tone; grave (`), which simply indicates word stress and no intonational curve. The acute and circumflex intonations occur only on syllables containing a long vowel or diphthong, while the grave occurs only on those containing a short vowel. Surface falling tone (acute) is the phonetic manifestation of stress on a high-pitched syllable, while surface rising tone (circumflex) represents stress on a low-pitched syllable. A stem-syllable marked grave on the surface derives from an underlying stressed syllable with low pitch.²

1.2 Turning our attention more specifically to verbs, we find that the Lithuanian verb is analyzable into four constituent parts: the root, the verb suffix (VS), the tense/aspect marker, and the personal endings.³ The root is what remains after the VS and the tense/aspect

marker, and the personal endings.³ The root is what remains after the VS and the tense/aspect marker are removed from the infinitive (e.g. myléti, where myl- is the root, é is the VS, and -ti the infinitive marker; áugti, where áug- is the root and -ti is the infinitive marker). The VS may occur in a number of shapes. It may appear, for example, as \emptyset , as in dírbtí 'to work', é, as in myléti 'to love', y, as in matýti 'to see', or o, as in žinóti 'to know'.⁴ The \emptyset form of the VS occurs in non-derived verbs, while the other three may occur in both derived and non-derived verbs. The tense/aspect marker always appears in the infinitive as -ti, e.g. dír**bt**-ti. In the present tense, the tense/aspect marker may have one of four possible forms: a, i, o or ja. These are found in verbs of the first, second, and third conjugation classes respectively. (See below for a discussion of the conjugation classes). In the preterit, only the two tense/aspect markers é and o may occur. The same personal endings are used for both the present and preterit forms. The shapes of these endings can be readily seen in the following paradigms:

<u>present</u>			<u>Preterit</u>				
<u>áugti</u> 'to increase'							
	Sg.	Du.	Pl.		Sg.	Du.	Pl.
1.	áugu	áugava	áugame		áugau	áugova	áugome
2.	áugi	áugata	áugate		áugai	áugota	áugote
3.	áuga	áuga	áuga		áugo	áugo	áugo
<u>matýti</u> 'to see'							
1.	mataũ	mátova	mátome		mačiaũ	mátéva	mátéme
2.	mataĩ	mátota	mátote		mateĩ	mátéta	mátéte
3.	māto	māto	māto		māté	māté	māté

1.3 There are a few points which merit some discussion. It will be noted that there is a recurring vowel which appears between the root and the ending in all forms except the first and second singular. This is the tense/aspect marker. In the third person where the personal

ending is \emptyset , the final vowel which appears is actually the tense/aspect marker.⁵

The variation in the first and second singular endings which occurs in the above paradigms (e.g. 1 Sg. áugu vs. mataũ; 2 Sg. áugi vs. mataĩ) is simply a surface result of the application of vowel deletion rules to the same underlying ending. Since one of these rules operates on vowels in word-final position, the full first and second person endings may be seen in the reflexive forms where the addition of the reflexive marker -si prevents the rule from operating because the vowel is no longer in final position, i.e. áugu but reflexive áugosi. The non-reflexive forms of these two verbs are derived as follows:⁶

	/aug-a-au/	/mat-aa-au/
metathesis	aug-a-ua	mat-aa-uf
V. truncation	aug-ua	mat-a-ua
final short.	aug-u	mat-a-u

The derivation of the second singular forms is exactly the same as that of the first singular, proceeding from underlying forms with the ending /-ei/.

The preterits always have long tense/aspect markers. Their surface forms can thus be accounted for in the same manner as the present-tense surface forms of matyti. For example, the first singular preterit of áugti is derived as follows: /aug-aa-au/ → /aug-aa-ua/ → /aug-a-ua/ → áugau (by the same rules used in the above derivation):

2.1 As was stated above, the purpose of this paper is to provide an analysis of Lithuanian verbal accentuation. We begin by examining the following forms.⁷

Group I

<u>prefixed</u>		<u>unprefixed</u>	
<u>present</u>	<u>preterit</u>	<u>present</u>	<u>preterit</u>
(1) <u>áugti</u> 'to increase'	(<u>apáugti</u> 'to become overgrown')		
apáugu	apáugau	áugu	áugau
apáugi	apáugai	áugi	áugai
apáuga	apáugo	áuga	áugo

(2) rīšti 'to tie, bind' (īšrīšti 'to unite')

īšrišu	īšrišaū	rišu	rišaū
īšriši	īšrišaī	riši	rišaī
īšriša	īšrišo	riša	rišo

(3) rēkti⁸ 'to shout' (aprēkti 'to outshout')

aprēkiū	aprēkiaū	rēkiū	rēkiaū
aprēki	aprēkei	rēki	rēkei
aprēkia	aprēké	rēkia	rēké

(4) viŕkti 'to pull' (suviŕkti 'to pull together')

sūvelku	suvilkaū	velkū	vilkaū
sūvelki	suvilkaī	velki	vilkaī
sūvelka	suviŕko	veŕka	viŕko

(5) veŕkti 'to cry' (apveŕkti 'to cry about')

apverkiū	apverkiaū	verkiū	verkiaū
apverki	apverkei	verki	verkei
apveŕkia	apveŕké	veŕkia	veŕké

(6) līpti 'to climb around on' (aplīpti 'to climb around on')

āplīpu	aplīpaū	līpū	līpaū
āplīpi	aplīpaī	līpi	līpaī
āplīpa	aplīpo	līpa	līpo

(7) līpti 'get covered' (aplīpti 'get covered')

aplīmpū	aplīpaū	līmpū	līpaū
aplīmpi	aplīpaī	līmpi	līpaī
aplīmpa	aplīpo	līmpa	līpo

(8) mégti 'to like' (pamégti 'to find pleasure in')

pamégstu	pamégau	mégstu	mégau
pamégsti	pamégai	mégsti	mégai
pamégsta	pamégo	mégsta	mégo

Group II (A)

(9) mokéti 'to pay' (užmokéti 'to pay one time')

užmóku	užmokéjau	móku	mokéjau
užmóki	užmokéjai	móki	mokéjai
užmóka	užmokéjo	móka	mokéjo

(10) drebéti 'tremble' (sudrebéti 'to tremble violently')

sùdrebu	sudrebéjau	drebù	črebéjau
sùdrebi	sudrebéjai	drebì	drebéjai
sùdreba	sudrebéjo	drēba	drebéjo

(11) vazinéti 'drive around' (suvazinéti 'ride too much')

suvazinéju	suvazinéjau	vazinéju	vazinéjau
suvazinéji	suvazinéjai	vazinéji	vazinéjai
suvazinéja	suvazinéjo	vazinéja	vazinéjo

(12) vartóti 'use' (suvartóti 'use up')

suvartóju	suvartójau	vartóju	vartójau
suvartóji	suvartójai	vartóji	vartójai
suvartója	suvartójo	vartója	vartójo

(13) galéti 'be able' (nugaléti 'defeat, conquer')

nùgaliu	nugaléjau	galiù	galéjau
nùgali	nugaléjai	galiì	galéjai
nùgali	nugaléjo	gãli	galéjo

(14) myléti 'love' (sumyléti 'to entertain well')

sumýliu	sumyléjau	mýliu	myléjau
sumýli	sumyléjai	mýli	myléjai
sumýli	sumyléjo	mýli	myléjo

(15) iesškóti 'seek' (apiesškóti 'search thoroughly')

apieškau	apieškójau	iesškau	iesškójau
apieškai	apieškójai	iesškai	iesškójai
apieško	apieškójo	iesško	iesškójo

Group II (B)

(16) lāvinti 'instruct, train' (palāvinti 'teach a little')

palāvinu	palāvinau	lāvinu	lāvinau
palāvini	palāvinai	lāvini	lāvinai
palāvina	palāvino	lāvina	lāvino

(17) grīsinți 'to bore' (nugrīsinți 'to become bored with')

nugrīsinu	nugrīsinau	grīsinu	grīsinau
nugrīsinī	nugrīsinai	grīsinī	grīsinai
nugrīsinā	nugrīsinō	grīsinā	grīsinō

(18) kōsēti 'cough' (pakōsēti 'cough up')

pakōsiu	pakōsējau	kōsiu	kōsējau
pakōsi	pakōsējai	kōsi	kōsējai
pakōsi	pakōsējo	kōsi	kōsējo

(19) mērdēti 'to be dying' (sumērdēti 'to die')

sumērdži	sumērdējau	mērdži	mērdējau
sumērđi	sumērdėjai	mērđi	mērdėjai
sumērđi	sumērdējo	mērđi	mērdējo

(20) gēlbēti 'help' (sugēlbēti 'help with diligence')

sugēlbiu	sugēlbėjau	gēlbiu	gēlbėjau
sugēlbi	sugēlbėjai	gēlbi	gēlbėjai
sugēlbi	sugēlbējo	gēlbi	gēlbējo

(21) vālgyti 'to eat' (išvālgyti 'to eat up')

išvālgau	išvālgiau	vālgau	vālgiau
išvālgai	išvālgei	vālgai	vālgei
išvālgo	išvālgė	vālgo	vālgė

(22) matyti 'to see' (apmatyti 'to look over')

apmataũ	apmačiaũ	mataũ	mačiaũ
apmataĩ	apmateĩ	mataĩ	mateĩ
apmāto	apmātė	māto	mātė

(23) <u>stýroti</u>	'to be rigid'	(<u>pastýroti</u>	'remain rigid')
pastýrau	pastýrojau	stýrau	stýrojau
pastýrai	pastýrojai	stýrai	stýrojai
pastýro	pastýrojo	stýro	stýrojo

2.2 In the discussion which follows we will develop our analysis by considering the paradigms given above. The paradigms fall into two major groups: verbs with uncharacterized infinitives (the first group, e.g. áugti) and verbs with characterized infinitives (the second group, e.g. mokéti).⁹ The division into these two groups forms the basis for the discussion in the rest of the paper. In the course of what follows, we will show why consideration of categorial information and prefixed verbs is necessary if an adequate description of verbal accentuation is to be achieved.

2.2.1 The first paradigm given is that of áugti, which represents a large group of first conjugation verbs with an acute accent which remains fixed on the root syllable throughout the paradigm. A comparison of this paradigm with that of the next example, rišti, reveals crucial accentual differences. In rišti, we find that the unprefixed and prefixed forms of the preterit, unlike the corresponding forms of áugti, show an alternation of accent between the root and the ending in the first and second persons singular. In the prefixed forms of the present tense of rišti, however, the accent remains fixed on the prefix.

2.2.2.1 These alternations of accent between the root and the ending result from the operation of the synchronic reflex of a historical phenomenon first noticed by Ferdinand de Saussure. The process as de Saussure first described it involved the shift of accent from a syllable with circumflex or grave intonation to an immediately following syllable with acute intonation. In keeping with the interpretation of surface accentuation given above in 1.1, the synchronic reflex of this process may be formulated as:

(DSL)	+ syllabic		+ syllabic
	+ stress	C ₁	+ high tone
	+ low tone		
	1	2	3 →
	1	2	3
	[-stress]		[+ stress]

By this rule an accent on an underlying low-pitched syllable shifts to an immediately following high-pitched syllable. The fact that DSL requires a sequence of low tone followed by high tone explains why certain forms of rīṣṭi have undergone accent shift, while the corresponding forms of āugṭi have not. That is, the stem rīṣ-, with grave accent (from underlying low tone) satisfies the low-pitched part of the environment for DSL, and whenever this stem is coupled with a high-pitched ending, stress shifts to the ending by DSL. The stem āug- however, as is evidenced by its acute accent, has an underlying high pitch and thus, regardless of the pitch of the ending which is added, forms built on this stem can never satisfy the environment for DSL. Since the 1 and 2.Sg. endings are the only ones which may with any certainty be said to have underlying high pitch (cf. the reflexive forms of these endings -ūosi and -īesi, where they occur in their unshortened forms), it is obvious why only these particular endings are eligible to receive stress by DSL. Furthermore, the fact that DSL specifies contiguous syllables in its environment explains why it is that, even though accent may occur on the endings of the 1 and 2 Sgs. in the unprefixd forms of the present, no such alternation ever occurs in the prefixed forms. That is, whenever the stress occurs on the prefix there is always at least one syllable (the root) intervening between the prefix and the high-pitched endings, making it impossible for such forms to ever meet the environment for stress shift by DSL.

2.2.1.2 At this point we should consider the derivational processes by which the first and second singular endings (which have underlying high tone) occur with surface grave (present tense) or circumflex

(preterit). The underlying representation of the 1 Sg. present of the verb rišti is /riš-a-au/. The root has a short vowel and will thus have a low pitch in the underlying representation. As stated above, the ending has an underlying high pitch (a stressed vowel is marked with an \check{x}): /riš^{x̄}-a-au/. Metathesis and vowel truncation yield the form /riš^{x̄}-ua/. Final shortening now applies, giving /riš^{x̄}-u/¹⁰ which becomes (by DSL)/riš^{x̄}-ū/. Notice that the final shortening rule has produced a short vowel (u). This u, however, still has the high pitch which the diphthong au had at the beginning of the derivation. Since Lithuanian does not permit a high pitch on a short vowel on the surface (cf. 1.1), there has to be some mechanism to change the pitch from [*high] to [*low], thus creating a permissible surface combination of vowel length and pitch. A similar problem exists in the preterit. However, because there is a long theme vowel in the preterit, after vowel truncation and final shortening apply, we are left with a surface diphthong: /riš^{x̄}-aa-au/ → /riš^{x̄}-aa-ua/ → /riš^{x̄}-a-ua/ → /riš^{x̄}-a-ū/. Since an acute is not allowed in final position, the [+ high] of the ending will have to be changed to [+ low]. Low pitch on a long vowel or diphthong is realized as surface circumflex. Thus, the final form of this 1 Sg. is rišaū.

2.2.1.3 The question now arises as to why the accent should fall on the prefix in the present tense forms of -rišti but on the root syllable of -ągti, the only obvious difference between the two roots being that ągti has a high pitch on the root syllable while rišti has a low pitch. In order to answer the above question, it is necessary to examine the other paradigms.

2.2.2 Looking at the unprefix forms of the third example, rėkti, we see that the distribution of accent between the root and the ending is the same as the distribution in the unprefix forms of rišti. Such a correspondence is logical since both rišti and rėkti have low pitch on the root, the only difference being that rišti has a grave accent and rėkti has a circumflex. In spite of the similarity of

behavior with respect to DSL between rīṣṭi and rēkti, the accentuation of their prefixed forms, however, is totally different. In the present tense, rēkti, like āugti, is accented on the root syllable. However, in the preterit, rēkti has the accent invariably on the prefix, unlike either āugti or rīṣṭi. It is unclear at this point why the accentual difference occurs in the prefixed forms of the present tense. However, the accentual difference in the preterit may be due to the fact that āugti and rīṣṭi have o preterits, while rēkti has an é preterit. An examination of all of the paradigms given above reveals that with the exception of third conjugation verbs in -yti, all verbs which have an é preterit show identical accentuation in the prefixed forms of the preterit (i.e. the accent is always on the prefix). On the other hand, the accent is always on the root in the o preterit.

2.2.3 The next example, viṛkti, represents a class of ablauting verbs having i in the root syllable of the infinitive and preterit and e in the present. The distribution of the accent of this verb is identical to that of rīṣṭi. However, the accent itself is the same as that of rēkti (i.e. circumflex). This verb and the next example veṛkti are different from the others which have been discussed in that they both have root syllables with mixed diphthongs. (A mixed diphthong is a vowel plus a resonant in a closed syllable (viṛk-), as opposed to a vocalic diphthong (as in āug-), which consists of a non-high followed by a high vowel). There is nothing else of significance to say about the viṛkti and veṛkti types at this point. They will be more relevant to a later discussion.

2.2.4 līpti and mēgti represent a class of verbs in which the present stem is characterized by the addition of a nasal infix and an -st- suffix respectively. The nasal infix and the -st- suffix are in general used to form inchoative intransitives. Verbs which have an infix or suffix added in the present always have the accent on the root, or on the ending (i.e. never on the prefix). For example, the nasal-infixed present liṃpa has the prefixed form apliṃpa, but the uncharacterized present līpa has the prefixed form āplīpa. The explanation for this accentual difference will present itself in the course of our analysis.

2.3 Having so far looked at an example of each of the types of verbs which have uncharacterized infinitives, we will now examine these verbs as a whole in an attempt to find an underlying principle of accentuation. From a general survey of the accentuation of verbs with uncharacterized infinitives, it appears that these verbs can be divided into two groups:

(1) Verbs like áugti, rékti and vefkti, which have the accent on the root in the prefixed forms of the present (the accent on the 1 and 2 Sg. endings of rékti and vefkti is of course due to the operation of DSL).

(2) Verbs like rísti and viłkti, which have the accent on the prefix in the present tense.

An examination of verbs which fall into Group I reveals that they are all alike in one respect: they all have an underlying heavy root syllable. (A heavy syllable is one which contains a long vowel or a vocalic diphthong or a mixed diphthong followed by a consonant). On the other hand, the majority of the verbs which fall into Group II have an underlying light root syllable. (A light syllable is an open syllable which contains a short vowel). Group II also includes a few verbs with heavy root syllables (cf. viłkti). These latter all ablaut, having il, im, ir and in in the infinitive and preterit and el, em, er and en in the present. Thus, their exceptionality is predictable. The accentual difference which exists between apliṃpa, the characterized present of liṃti, and apliṃpa, the uncharacterized present of liṃti, was pointed out above. It is clear now that this accentual difference is due to the fact that the nasal-infixd present apliṃpa has a heavy root syllable which doesn't ablaut with lemp-^{*}, whereas the uncharacterized present apliṃpa has a light root syllable. Similarly, presents which are formed by the addition of the -st- suffix also have heavy root syllables and thus always have the root accented in prefixed forms.

2.4 It appears then from the evidence presented above, that the place of accent is predictable in the present, preterit, and infinitive of both prefixed and unprefixed verbs with uncharacterized infinitives.

2.4.1 It is a fact of the language that verbal roots are monosyllabic.¹¹ Therefore, since in unprefixed verbs, the accent is always on the root

syllable, there is never any question of where the accent will occur, making it automatically predictable and therefore assignable to the root syllable by an early rule.

2.4.2 In prefixed verbs, the predictability of occurrence of the accent between the root and the prefix makes it possible to assign accent to prefixes as well as to roots: in the present tense, the accent will be assigned to the root syllable just in case that syllable is heavy. If the root syllable is light, the accent will be assigned to the prefix. In the é preterit, the accent will always be assigned to the prefix, while infinitives and forms of the o preterit will receive root accent.

The ablauting verbs discussed above (viIkti, etc.) will be exceptions to the rule which assigns accent to a heavy root syllable and will have to be marked as having accent assigned to the prefix.

2.5 The discussion so far has been based solely on observations about the accentuation of verbs with uncharacterized infinitives. Before any conclusions can be drawn about Lithuanian verbal accentuation as a whole, it will be necessary to extend our investigation to include the language's second major group of verbs---those with characterized infinitives.

3.1 In order to facilitate discussion, we will begin by limiting ourselves to examination of the accentuation of the unprefixed forms of verbs with characterized infinitives (paradigms of verbs with characterized infinitives occur under Group II in section 2.1 above). A look at the paradigms in Group II reveals that these verbs exhibit a variety of accentual patterns, so that for example, we find kóséti with root stress in all categories (recall that those forms which have ending-accent can be analyzed as underlyingly root stressed and as having undergone stress shift by DSL) and vazinéti with stress on the verb suffix in all categories. There exist also verbs such as drebéti, which have accent on the root in certain categories and on the verb suffix in others. What is significant for the present discussion is the fact that the following generalization holds true for the paradigms of all unprefixed verbs with characterized infinitives:

In all categories where the verb suffix is present on the surface,

there is never any variation in the place of accent; either (a) the stress will always occur on the verb suffix (vazinéti) or (b) stress will always occur on the root in all forms (kóséti). It should be emphasized that paradigms like that of drebéti, with alternation of stress between root and VS, do not constitute exceptions to the above generalization. Since the VS is not present in certain categories of this verb, it is of course impossible for the accent to occur anywhere but on the root in these categories. In all categories where the VS does occur however, in keeping with our generalization, there is no accentual alternation, stress occurring invariably on the VS. (We will for the moment disregard the accentuation of those categories in which no VS occurs and return to them later in our discussion). We will henceforth refer to verbs which have stress on the VS whenever it is present as Type (A) verbs and those which have root stress as Type (B) verbs.

3.2 The question now arises as to whether there is any way to predict which verbs will fall under Type (A) and which will be accented in accordance with Type (B). Clearly there is no purely segmental means of distinguishing between the two types. However, a general examination of verbs with characterized infinitives reveals that those of Type (B) are distinguishable on the basis of certain shared semantic and morphological characteristics. Thus, it seems that the vast majority of verbs which are semantically characterizable as iteratives, intensives or duratives predictably exhibit root accent (e.g. kóséti 'to cough', mérdéti 'to be dying', stýroti 'to be rigid'). In addition, it is possible to predict that any verb which belongs to the third conjugation (i.e. whose infinitive ends in -oti or -yti) will fall into accent type (B). Similarly, all verbs with infinitives in -inti will have Type (B) accentuation. (It will be noted that there is a certain amount of overlap between these semantic and morphological categories, so that for example there exist some iteratives, intensives or duratives which are at the same time characterizable as third

conjugation -yti or -oti verbs. It would not however even be necessary to characterize such verbs semantically, since they automatically fall into the more general group according to their morphological configuration).

3.3 It seems then that accentuation of the unprefixed forms of verbs with characterized infinitives is by and large predictable: In all forms where there is no VS present, accent will of course be on the root. In forms where the VS occurs, the accent will be on the VS--- unless the verb in question belongs to the class of iteratives, duratives or intensives or is classifiable as a third conjugation verb or a verb in -inti, in which case the accent will occur on the root syllable.

3.4 Expanding our examination to include prefixed forms reveals that, in all categories where the VS is present, division into Type (A) and Type (B) verbs still holds. Thus, for any given category, as long as the VS occurs, accent will never be on the prefix; it will invariably be on the root for all verbs which are distinguishable as Type (B) verbs on the basis of their semantic and morphological characteristics; and it will invariably be on the VS for all other verbs (i.e. for all Type (A) verbs).

3.5 Returning now to discussion of the paradigms of verbs with characterized infinitives which do not have the VS present in all categories, we find that wherever there is no VS present accentuation may follow one of two patterns: First of all, if it is the case that the verb in question is classifiable as Type (B), then stress will invariably occur on the root, with the prefix never receiving the accent. If on the other hand the verb in question does not qualify as Type (B), then the accentuation will follow exactly the pattern which was described in 2.3 above for verbs with uncharacterized infinitives.¹²

3.6 The above observations seem to indicate then that in all instances, verbs of Type (B) have accent fixed predictably on the root. It would not seem unreasonable then to capture this fact by assuming that the grammar of the Lithuanian speaker contains some very early rule which says something like the following: Accent the root of all iteratives, intensives and duratives, third conjugation verbs, and

verbs in -inti.

All other verb forms with the VS present on the surface (i.e. all Type (A) verbs) predictably have stress on the VS. The speaker's probable intuitions about this could similarly be characterized by a rule which states simply: Accent the VS whenever it is present. Note that this rule would logically be ordered after the one which accents Type (B) roots. Such an ordering may readily be seen to allow both the simplest statement of the two rules and the simplest analysis in general, since the opposite ordering would necessitate either (1) a more complicated statement of the VS accent rule which would actually repeat the environment for the Type (B) accent rule or (2) the addition of some sort of de-stressing rule to remove stress from the VS in all Type (B) verbs. That is, if the VS assignment rule were to be ordered first, it would have to be stated in such a way as to accent the VS wherever it is present, except in precisely those semantic and morphological categories where the Type (B) accent rule will apply to accent the root. Alternatively, the VS accent rule could be stated as originally given above and would thus stress the VS everywhere. When the Type (B) rule then applied, each Type (B) form would receive a root stress---regardless of whether or not the form had already received a VS stress by the previous rule. This would yield forms with two stresses, necessitating some kind of de-stressing rule to remove the right-most stress (i.e. the one on the VS).

3.7 Finally, it should be noted that ordering the above two rules before whatever processes are responsible for the accentuation of verbs with uncharacterized infinitives would account for why, in those categories where the VS is not present, Type (B) forms invariably have the root accented, but Type (A) verbs behave exactly like verbs with uncharacterized infinitives. That is, all forms of Type (B) verbs (whether the VS is present or not) receive stress by a very early rule. Then, all Type (A) verb forms which have the VS present receive stress by another early rule. This leaves still unaccounted those Type (A) verbs without a VS, so that they naturally participate in the same accent assignment processes which act on the forms of verbs with

uncharacterized infinitives.

4.1 Having now examined all of the relevant types of verbs in the language, it will be helpful to summarize briefly the observations which have been made concerning these:

4.1.1 The largest group of verbs in the language are those with uncharacterized infinitives. Unprefixed forms of these verbs have root accent except when the accent has been shifted to certain endings by the rule DSL (cf. section 2.2.1.1). Prefixed forms are accented as follows: The infinitive and o-preterit always have the accent on the root syllable; the e-preterit always has the accent on the prefix; the present has the accent on the root syllable if this syllable is heavy and on the prefix if this syllable is light.

4.1.2 Verbs with characterized infinitives display several accentual patterns.

4.1.2.1 Certain verbs, both prefixed and unprefixed, have root accent in all tenses. These verbs fall into clearly defined classes, making it possible to characterize their accentuation categorially.

4.1.2.2 The remaining verbs, both prefixed and unprefixed, with characterized infinitives have the VS accented wherever it is present.

4.1.2.3 In present-tense forms where there is no VS, and where the root has not received stress by one of the categorial root assignment rules, prefixed forms will be accented in accordance with the weight of their root syllables, just as are prefixed forms of uncharacterized verbs. Unprefixed forms will, of course, be accented on the root syllable.

4.2 It appears that the principles of accentuation suggested for uncharacterized verbs can be extended, then, to the entire class of primary verbs by the addition of two rules: one rule to assign accent to the roots of verbs in the categories which have surface root accents in all tenses (iteratives, intensives, etc.); another to assign accent to the verb suffixes of the rest of the characterized verbs (cf. mo^hḥ^hti).

5.1 Working within the above framework, then, we can say that verbs fall into two major groups: the first consists of those which have the accent assigned by category to the root syllable in all tenses,

while the second is made up of verbs whose accentuation varies according to whether or not a VS is present and according to tense (i.e. verbs whose accent is assigned largely by tense rather than by a more general category).

The accent assignment rules, in the order in which they must apply, are as follows:

For prefixed and unprefixed verbs:

(1) Accent the root syllable of iteratives, intensives, duratives, third conjugation verbs with infinitives in -yti and -oti, and verbs with infinitives in -inti.

(2) (Where there has not yet been an accent assigned):

(a) Accent the verb suffix in all tenses where it is present.

For all remaining unprefixed verbs:

(b) Accent the root syllable.

For all remaining prefixed verbs:

(c) Accent the root syllable of infinitives and o-preterits.

(d) Accent the root syllable in the present tense if that syllable is heavy.

(e) Accent the prefix in the present tense if the root syllable is light.

(f) Accent the prefix in the e-preterit.^{13, 14, 15}

5.2 It will be observed that only the first two of the accent assignment rules given above are applicable to both prefixed and unprefixed verbal forms. The reason for this is that for unprefixed verbs it is only in characterized forms that a choice of accent placement exists (i.e. between the root and the VS). For uncharacterized verbs, it is only in prefixed forms that there can be any question of where the accent will be assigned.

5.3 It is logical that the categorial accent assignment rules, which assign the accent to the root in all tenses, would take precedence over all of the other rules. Thus, even though there seems to be a general principle of verb-suffix accentuation, the rule which assigns the accent to these verb suffixes must follow the accent assignment rules of the first group, since a word is allowed to have only one stress.

In turn, the rule which accents the root-syllable of the infinitives and o-preterits must follow the VS accent assignment rule because any infinitive and o-preterit with a VS must have the accent assigned to this VS. We might say, then, that there is a hierarchy of accent assignment. That is, some verbs must already have their accents, as a result of the working of a more general rule, at the time when other accent assignment rules apply. A few examples should serve to clarify the operation of the accent assignment rules: a verb such as pakósej since it is an iterative, is accented by the first accent assignment rule and receives root accent in all of its tenses, while a verb such as užmokéti, since it was not affected by the first accent assignment rule, has the VS accented in all tenses where it is present (i.e. in the infinitive and in the preterit). No accent has yet been assigned to the present and therefore the rules which assign accents here can apply, placing an accent on the root-syllable, since it is heavy. A verb such as išrišti has root accent in the infinitive (by the rule which accents the roots of infinitives without a VS), prefix accent in the present (išriša) (because the root-syllable is light), and root accent in the preterit (išrišo) (by the rule which accents the root-syllable of o-preterits).

6.1 In conclusion, it is appropriate to add that, even though the rules of accent assignment which we have proposed for Lithuanian are able to account for the accentuation of the large majority of verbal forms in the language, there still exist forms which must be considered to be exceptional. A significant number (in fact, nearly all) of these forms are identifiable as exceptions to Accent Assignment Rule (1) (cf. section 5.1).¹⁶ It will be recalled that Rule (1) differs from all the other accent assignment rules in that it is the only one which mentions semantic information in its environment (in addition to the exclusively grammatical or structural information required by the other accent rules). Because of the ambiguity and overlap which frequently exist between semantic categories, it is in our opinion quite natural that it would be precisely with respect to the one rule whose application depends on such information that most exceptions would arise. That is,

it would not be surprising at all that there would exist not only a great deal of variation from speaker to speaker about what semantic category a particular verb belongs to, but also that the judgements of a particular speaker would fluctuate, depending on the specific context and usage of the verb in question.

Footnotes

¹We wish to thank Hans Hock for helpful discussion and suggestions made during the writing of an earlier draft of this paper.

²For complete discussion of the derivational processes involved see Kenstowicz's contribution to this volume. It should be noted that occasionally, in the process of derivation, a long final syllable with high pitch is shortened and is thus no longer able to appear with a surface acute (the acute being restricted to long syllables). In this case, the syllable appears on the surface with a grave accent.

³This analysis is basically that presented in Kenstowicz's contribution to this volume, which may be consulted for further discussion of the topic.

⁴The underlying forms of these particular verb suffixes are /e:/, /i:/, and /a:/ respectively. The verb suffixes are given in their surface forms throughout the text.

⁵It is notable that each Lithuanian verb uses only one third person form in each tense, making no distinction between singular, dual, and plural.

⁶This derivation is the one given in Kenstowicz's contribution to this volume, which should be consulted for further details. The difference in the underlying forms arises because áugti is a first conjugation verb and therefore has the tense/aspect marker /-a-/, while matyti, being a member of the third conjugation class, has the tense/aspect marker /-aa-/ (surface -o-). For a different view, cf. Hock's second contribution to this volume.

⁷Only the first and second person singular and third person will be cited, as these provide all of the information relevant to the present discussion.

⁸The i which occurs between the root-final consonant and the ending in certain forms of this paradigm is there as a result of the fact that rėkti is a ia-stem.

⁹The term 'characterized' refers to the fact that a non- \emptyset VS is present in the form.

¹⁰ Final shortening is the synchronic reflex of Leskien's Law, which shortened word-final high-pitched syllables.

¹¹ Denominative verbs constitute an exception to this statement, for, being derived from nouns, they often have polysyllabic roots. Their accentuation creates no problems, however, since it seems to be predictable in terms of the nouns from which they are derived.

¹² It might appear at first glance that matyti belongs to Type (A) rather than to Type (B), since the VS is accented whenever present (i.e. in the infinitive) and since, in forms without the VS, the root syllable is heavy and accented in prefixed forms (cf. 3 Sg. pres. apmato). However, it can be shown that this verb does in fact belong to Type(B)--- that is, that the accent has been placed on the root-syllable of this verb just as in other -yti verbs (e.g. valgyti): There is in Lithuanian a low-level phonetic rule of vowel lengthening, referred to as Secondary Lengthening by Kenstowicz (see his contribution to this volume). According to this rule, stressed non-high vowels are lengthened if they occur in open syllables (and categorially in closed syllables also). (cf. mato [mā^x:to:], but matau [mā^xtau], where stress has been moved off the root vowel a by the rule DSL, and the vowel has therefore not been lengthened by the Secondary Lengthening Rule). Since a thorough discussion of this rule can be found in Kenstowicz's contribution to this volume, no more will be said about it here. The important point is that the root vowel a is underlyingly short and, if the VS -y- had received its accent by the VS accent assignment rule, the prefixed present-tense forms would have prefix accent, since the syllable is still light at the point at which the accent is assigned. Thus, we must assume that all third conjugation verbs in -yti receive root accent, that non-high short vowels are lengthened later by the low-level lengthening rule, and that an accented -y- is a result of the application of the rule DSL, since it is accented only in forms which have low pitched root vowels (cf. mato vs. valgo).

¹³ Only the first three rules are ordered with respect to one another. Furthermore, these three rules must be ordered before the remaining four, which may apply in any order.

¹⁴The accentuation of prefixes is actually not as straightforward as we have presented it in this paper, for when more than one morpheme occurs to the left of the root, it is the rightmost which receives the accent: e.g. 3Sg. pret. ūžlenké < užlėnk̃ti 'bend sideways', but užsilenké, where už- is the verbal prefix and si is the reflexive morpheme. Furthermore, when disyllabic prefixes occur, the accent appears on the second syllable of the prefix: e.g. 3 Sg. pret. apibarė < apibarti 'scold'. Thus, it appears that, for verbal forms, at least, there is a constraint to the effect that the accent may occur no farther than one syllable to the left of the root syllable.

¹⁵There exists one prefix in the language, namely pér- which is different from all other prefixes in that it is always accented. Because of this clearly exceptional behavior, examination of forms with pér- can be of no great value in determining an analysis of Lithuanian verbal accentuation in general. Therefore, we will merely note the existence of pér- without devoting further attention to it.

¹⁶For example, gėlbėti, given in section 2.1, group II (B) is exceptional in that it does not seem to fit into any of the semantic categories which require root accent assignment. Its expected accentuation would be on the VS.

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