QUENYA PROSODIC STRUCTURE*

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1. Proem

This paper will examine the fascinating prosodic structure of the constructed language (a.k.a. conlang) Quenya, the creation of renowned author J.R.R. Tolkien for his *Legendarium*; Quenya is only one of his many languages, but also the most fleshed-out. I will be concentrating on stress patterns of the language and vowel length. A large part of Tolkien's Quenya literature is poetry, which Tolkien (2010) himself admits employs metrical stress, something that will not be the focus of this paper, as it does not have the same structure as regular discourse.

I will be attempting to establish an account for specific processes present in Quenya using a variety of markedness and faithfulness constraints within an Optimality Theory framework, which to my knowledge has not been attempted before in an academic setting. Stress in Quenya is relatively regular, but because it is a quantity sensitive language, vowel length comes into play and often motivates shifts in stress along with the mora count within polymorphemic words, especially compounds, which are extremely common in Quenya.

Two processes posited by Strack (2021) in Quenya trigger stress reassignments through the manipulation of morae, namely syllable shortening and prosodic lengthening.[1]

In the rest of Section 1 I will provide a brief introduction to Optimality Theory – what it is, how it works and why it is useful and applicable when it comes to getting to the bottom of what is going on in the (morpho)phonological landscape of Quenya. For those familiar with OT, this meagre introduction might prove unnecessary and even rudimentary. In this case, Sections 1.1 and 1.2 can safely be skipped without missing any Quenya-specific information or analysis.

In Section 2 I will give an introduction to Quenya itself based on Tolkien's own accounts and outside resources on the language, however limited. It will be comprised of the Quenya vowel and consonant inventories as well as a brief summary of how stress is assigned (both primary and secondary), including Tolkien's take on light and heavy syllables. I will also give an outline of syllable shortening and prosodic lengthening in Quenya.

In Section 3 I will begin analyzing these aforementioned processes and critiquing their validity as prescribed by the limited study that has been done on Quenya. I will be assigning constraints to Quenya prosodic phonology based on my findings and the patterns I come across. I will also consider secondary stress and its manifestation.

Finally, in Section 4 I will conclude the paper and give an overview of the prosodic structure of Quenya based on my overview and analysis.

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The Elvish Data Model (*Eldamo*) is an actively expanding linguistic database devoted to the study and examination of the Tolkien languages and was the source of these two processes.

1.1 Introduction to Optimality Theory

Optimality Theory (OT) attempts to account for surface forms of language through the ordering of constraints (explained later) observed within a language. In principle, OT can be applied to other domains of linguistics outside of phonology, but – aside from the strong ties to morphology present here – these applications are outside of this paper's purview. Maria Gouskova (2015) of New York University provides an insightful look into how OT operates in phonology.

As previously mentioned, OT attempts to elucidate the sometimes-puzzling output observed in a language through a hierarchy of constraints that together eliminate competing candidates until the optimal candidate is determined to be the output. In many ways, OT serves as a framework to help us understand how conflicts are resolved between several constraints that have clashing and often incompatible demands. This conflict resolution inevitably leads to a hierarchy of constraints.

To illustrate what this looks like, Example (1) below is from an invented language. In this invented language, the root *afil* undergoes affixation through the addition of the *keto-* prefix. While these are indeed the underlying representations of the morphemes' inputs, what surfaces in the language (the output) is actually *ketafil*.

(1) First Example Tableau

input: /keto-/ + /afil/	constraint 1: *VV	constraint 2: MAX-IO	constraint 3: *CODA
candidate A: ketoafil	*!		*
candidate B: ☞ ketafil		*	*
candidate C: ketoafi	*!	*	
candidate D: ketafi		**!	

This Tableau displays four candidates, each trying in different ways to satisfy the impositions made by the two markedness constraints and one faithfulness constraint listed in the top row. Faithfulness constraints try to preserve the input as much as possible, and the MAX-IO mandate is for the output to not have deleted anything from the input. Markedness constraints try to avoid marked linguistic forms in favour of unmarked forms. Constraint 1 mandates that the output not have a sequence of two vowels, to avoid hiatus or long vowels, while Constraint 3 prohibits codas. In other words, in this invented language, hiatus and codas are marked.

Candidate B is proven to be the optimal candidate, and thus the output, which is signalled by the ☞ symbol. This is due to the other candidates having fatal violations (!) that eliminate them. Even though the optimal candidate has violations (*), it is the only candidate with no fatal violation. This is made possible thanks to the hierarchy of the constraints, where not all constraints are weighed equally. The winning candidate is not perfect, but it is optimal under the circumstances.

(2) Second Example Tableau

input: /keto-/ + /afil/	constraint 2: MAX-IO	constraint 3: * CODA	constraint 1: *VV
candidate A: ketoafil		*!	*
candidate B: ketafil	*	*!	
candidate C: ☛ ketoafi	*		*
candidate D: ketafi	**!		

Tableau (2) proves that the order of constraints matters. In this second instance, the constraints have been rearranged in terms of priority. As a result, Candidate C is falsely chosen as the optimal candidate and this erroneous selection is signalled by the ☛ symbol. If Constraints 3 and 1 were then to be switched, then Candidate B would win.

A dotted line between constraint columns indicates that the order between those constraints has no bearing on the outcome. Should these constraints be internally re-arranged, the optimal candidate will still win out over the other candidates. Examples of such a phenomenon will emerge in Tableaux throughout Section 3.

1.2 Optimality Theory as a Tool

Optimality Theory is a very useful tool for the purposes of exploring the *why* and the *what* behind linguistic output that we come across while studying a language. It can sometimes be puzzling *why* morphemes surface differently within a larger word from how they appear free and on their own, specifically when derivational morphology is involved. The *what* behind surface forms can be explained through the exploration of constraints such as the ones offered in (1) and (2). Different constraints, both markedness and faithfulness, observed within a language interact with one another. This interaction culminates in an inevitable hierarchy, whereby some constraints are prioritized more than others in a given language. Given the nature of how markedness and faithfulness constraints operate in tandem with each other, there will always be contradictions between constraint mandates and candidates, which is why some constraints need to be heeded more than others.

OT provides the framework – if OT is the tool, as researchers all we need to do is find the right-sized fasteners in order to nail down what constraints are at play and how they collaborate and organize themselves in order to produce the output we encounter.

Due to its exploration of linguistic phenomena in the form of constraints, OT can be incredibly utile in Quenya. This is especially so given the lack of academic research devoted to the language; an OT analysis is a great way of beginning to unpack all that is at play behind the scenes.

2. Introduction to Quenya

2.1 The Language

The Quenya language is a conlang largely based on Finnish (lexically speaking). This can be explained by Tolkien's (2007) admission of having fallen in love with Finnish at the time of Quenya's development. The absence of voiced stops except in clusters, inflexional and lexical endings, a lack of grammatical gender, word-initial stress (albeit secondary in Quenya) and the suffixal nature of personal possessives all point towards a Finnish influence. Nevertheless, as its development progressed, the pronunciation and stress rules leaned more towards Latin (Tolkien 2007). In Tolkien's *Legendarium*, which includes the world-famous *The Lord of the Rings* and *The Hobbit* novels, certain sects of elves spoke Quenya at various points in their fictional history, but it later become more of a liturgical, formal language reserved for poetry, songs and laments – similar to Latin in Europe. The longest and most famous piece of Quenya poetry is *Namárië*

('farewell').[2] Languages related to Quenya, like Telerin and Sindarin, became elven vernaculars instead.

2.2 Quenya Vowel Inventory

Quenya's vowel inventory consists of seven vowels. It distinguishes between some long and short vowels with /e/ and /o/ only appearing as /eː/ and /oː/ respectively. On the flipside, /ɛ/ and /ɔ/ only ever appear short. In other words, there is complementary distribution between the front mid vowels and the back mid vowels, depending on the length of the vowel. The vowels /i/, /u/ and /a/ may appear long or short (Tolkien 2010).

(3) Quenya Vowel System

	Front	Back
High	i(ː)	u(ː)
Mid-high	eː	oː
Mid-low	ɛ	ɔ
Low	a(ː)	

Quenya also has six diphthongs /ai/, /oi/, /ui/, /iu/, /eu/ and /au/, written *ai*, *oi*, *ui*, *iu*, *eu* and *au* respectively. According to Tolkien's own account, diphthongs and long vowels constitute a heavy syllable in Quenya. This point will be especially relevant when we talk about syllable shortening and prosodic lengthening starting in Section 2.5.

2.3 Quenya Consonant Inventory

The Quenya consonant inventory consists of 20 consonant phonemes (including 3 semivowels).

(4) Quenya Consonant System

	Labial	Alveolar	Palatal	Velar	Glottal
Nasal	m	n		ŋ	
Stop	p b	t d		k g	
Fricative	f v	s	ç	x	h
Trill		r			
Semivowel	ʍ w		j		
Liquid		l			

In classifying these consonants, I followed the conventions used by Tolkien (2010) that have since been recorded and published posthumously in the *Parma Eldalamberon*.[3]

Consonant clusters do exist in Quenya, the most common being /kw/ (the Quenya *qu*). /kw/ is also sometimes thought to simply be a labialized voiceless velar stop /kʷ/. Ryan (2014) argues in favour of this latter approach.

[2] *Namárië* and other Quenya literature can be read on the Tolkien linguistic database called *Eldamo*.

[3] Unless marked by the IPA brackets /abc/ or [xyz], the transcriptions of Quenya in this paper are written in the Latinized form of the Quenya language. The Tengwar script is the script in which it is written originally.

2.4 Stress

According to Tolkien, stress depends on whether a syllable is "long" or "short", in other words heavy or light. A heavy syllable contains either a diphthong, a long vowel or a vowel followed by two consonants (Tolkien 2010, Strack 2021). Tolkien was a philologist but not necessarily an academic linguist using the same linguistic terminology and norms that we use today. When Tolkien says that a syllable is long if its vowel is followed by two consonants, this means that a syllable is heavy when it has a coda. This indicates that Quenya is quantity sensitive to codas.

Tolkien states that stress falls on the penultimate syllable in a word when this syllable is heavy, otherwise it falls on the antepenultimate syllable. Primary stress cannot fall on a syllable before the antepenultimate syllable.

The claim made above of Quenya quantity sensitivity is backed up by example (5) below, which would have had the stress on the first (antepenultimate) syllable if Quenya were not quantity sensitive to codas. The word in (5) displays that the language has false geminates, whereby the two segments comprising the geminate are separated by a syllable boundary. As noted by Kelsey Ryan (2014), Quenya's geminates are always false geminates. This false geminate grants the second syllable a coda and thus make it heavy, attracting the stress away from the default antepenultimate syllable.

(5) *Ni.qués.së* [4] 'snowflake'[5]

Stress does not fall on the final syllable of a word except in monosyllabic words like *ái* ('alas') or in standalone imperative forms of verbs such as *avá* ('don't!') or *norá* ('run!'). As pointed out by Strack (2021), these imperative forms do take normal stress patterns when used in a larger phrase however: *áva quete ya carin* ('don't tell me what to do').

Secondary stress also occurs in Quenya, but more often than not this is employed as metrical stress and only useful for poetry, which has an iambic foot pattern (Strack 2021). On top of this, it is not clearly defined; Tolkien speaks of it as if the secondary stress only occurs when appropriately separated from the primary stress and when the syllable being stressed is suitable in a particular way – there will be more on this topic of non-metrical secondary stress in Section 2.8.

2.5 Syllable Shortening[6]

According to the Tolkien literature (2010) and resources dedicated to the study of Quenya like *Eldamo* (Strack 2021), Quenya does not like heavy syllables word-finally. To amend a word that would have such a syllable, Quenya employs a process *Eldamo* calls "shortened final syllables,"

[4] Latinized Quenya orthography optionally uses the tréma (¨) to remind readers that the vowel is pronounced separately. In this paper, the macron (¯) will be used to denote a long vowel (like Tolkien used in his literature), the acute accent (´) will be to denote primary stress and the grave accent (`) will be used to denote secondary stress. Periods (.) are used to denote a syllable boundary.

[5] Quenya samples such as this one, along with translations, have all been sourced from *Eldamo*.

[6] It should be noted that *Eldamo* is being expanded and improved all the time. This section describes how syllable shortening was conveyed according to earlier versions of this database, which has since been updated and currently describes a more accurate account of what is going on. This new edition says that long vowels are shortened while in the final syllable of the word, instead of the whole syllable being shortened. Interestingly, the process is still called "shortened final syllables" and not "shortened final vowels," and *moriquen* is still listed as an example under this process, which we will determine is in fact not an example of syllable shortening. This paper only seeks to use an OT framework for Quenya phonological processes and is not intending to disprove anything or anyone's claims, which is why the rest of this paper will refer to the way *Eldamo* used to describe this process, in order to provide an OT-informed explanation for what is really going on, something which has never been attempted before in Quenya.

which I will call "syllable shortening" for simplicity's sake. This term refers back to Tolkien's terms "short" and "long" syllables. I find this process's generalization to be problematic, which I will explain shortly.

Quenya is a language that makes use of a tremendous amount of compound words such as *Eldamar* ('elvenhome'). In this word, *Elda* ('Elf') and *mār* ('home') are its comprising morphemes. The only issue here is that in order to combine them without any changes, thus remaining faithful to the input, it would become **Eldamār*. Alas, this is not the correct output, so syllable shortening will need to come into play in order to avoid a word-final long vowel. Other examples of syllable shortening are listed below.

(6) a. *Vala* + *mār* = *Valimar* 'home of the Valar'
b. *Cuivië* + *nēn* = *Cuiviēnen* 'water of awakening'
c. *Vala* + *nōrë* = *Valinor* 'dwelling of the Valar'

In all of these examples, the long vowel that would take place in the final syllable of the word is shortened. It is important to note that there is another process going on in (6c), whereby the final vowel *ë* is dropped due to it being short and at the end of a polymorphemic word that has more than two syllables. This environment is how the phenomenon is described by Tolkien in the literature (Strack 2021). It is relevant as well for the example below.

(7) *Mori-* + *quendë* = *Moriquen* 'Dark-elf'

The example in (7) is also listed as an instance of syllable shortening by Quenya research recorded in *Eldamo*. After the *ë* is dropped for the reason above, according to syllable shortening, the *d* is also deleted out of necessity. This necessity being to avoid a vowel followed by two consonants at the end of a word, which, according to Tolkien and Tolkien-inspired resources, constitutes a long syllable. If this reasoning is correct, then it follows that (7) is an example of syllable shortening, but if it is indeed the case that a coda alone makes for a long syllable, then the final syllable of the shortened form in (7) is still heavy, as well as all forms in (6). Another constraint would need to apply to delete the /d/ for other reasons. Furthermore, the notion that Quenya does not allow heavy syllables word-finally is not valid according to this revisionist reading of the data; rather, we need a constraint that simply disallows for long vowels in the word-final syllable of polysyllabic words. I will discuss both of these new constraints in Section 3.1.

2.6 Prosodic Lengthening

As stated prior, Quenya's lexicon is full of polymorphemic words, including many compounds. Another interesting phonological process posited in *Eldamo* (Strack 2021) that takes place within derived words in Quenya is called prosodic lengthening. This process "lengthens," or makes heavy, the final syllable of the stem when it comes before another morpheme (including affixes or additional roots in the case of compounds), given that the "final product" is at least four syllables in length. In other words, in long polymorphemic words, Quenya likes to demarcate the morpheme boundary clearly through the addition of morae.

(8) a. *Vanima* + *-lion* = *Vanimālion* 'beautiful children (genitive plural)'
b. *Ciryali* + *-nen* = *Ciryalīnen* 'some ships (instrumental partitive-plural)'

c. *Cuivië + nēn = Cuiviēnen* ‘water of awakening’
d. *Atanatar + -i = Atanatāri* ‘fathers of men’

2.7 Limits of Prosodic Lengthening

Prosodic lengthening does have its limitations as noted by Strack (2021). As mentioned in 2.6, if the word is not at least four syllables (all morphemes), then it will not trigger.

(9) a. *Átar + -i = Átari* ‘men’
b. *Lássë + -li = Lásseli* ‘some leaves (partitive-plural)’

Additionally, if the stem has penultimate stress, it will not trigger prosodic lengthening when a suffix is attached because the derived word will already have antepenultimate stress.

(10) a. *Ingóldo + -va = Ingóldova* ‘gnome (possessive)’
b. *Miruvőrë + -va = Miruvőreva* ‘mead (possessive)’

The suffix must add a syllable to the word or else it will not trigger prosodic lengthening.

(11) *Ōmatáina + -r = Ōmatáinar* ‘vocalic extensions’

Prosodic lengthening is unnecessary when there is a consonant cluster at the morpheme boundary. This is due to the syllable prior to the cluster already being a heavy syllable thanks to its coda.

(12) *Aráta + -rya = A.ra.tár.ya* ‘her sublimity’

2.8 Secondary Stress

In Quenya, secondary stress is often associated with the rhythmic metricity of poetry, something that Tolkien wrote a lot of. This association between poetry and secondary stress was briefly touched upon in in Section 1.

In regular discourse, Tolkien (2010) mentioned that words often have a secondary “accent” on the initial syllable if it is not adjacent to the primarily stressed syllable. If the initial syllable is heavy, it may indeed be stressed even adjacent to the primary stress.

(13) a. *Òromárdi* ‘lofty halls’
b. *Àndűnë* ‘sunset’
c. *Ǒmáryo* ‘voice (third person singular genitive)’
d. *Tìntállë* ‘kindler’

(14) *Avā́nier* ‘to have passed away (perfective plural)’

The examples in (13) all have secondary stress on the word-initial syllable. In (13a) this is because the primary stress is two syllables away. In (13b) through (13d), the primary stress is

adjacent to the secondary stress but because this secondary stress falls on a heavy syllable, the syllable gap is unnecessary.

(14) shows that the word-initial syllable does not get secondary stress. It is a light syllable adjacent to the primary stress.

I will not address Tolkien's notes on other manifestations of secondary stress, because he refers to these as being used as metrical stress. This would be an interesting topic to explore but will not be the focus of this paper's investigation of secondary stress.

3. Analysis

In this section I will be analyzing the moraic patterns we see taking place through syllable shortening and prosodic lengthening. I will then propose and rank constraints that can help explain the stress patterns and moraic manipulations we see in Quenya. Sections 3.1 and 3.2 will be devoted to positing both markedness and faithfulness constraints. Sections 3.3 and 3.4 will look at the so-called syllable shortening and prosodic lengthening processes respectively through a more analytical lens using Optimality Theory. Finally, Section 3.5 will touch on how Quenya word-initial secondary stress can also fit into our OT model.

3.1 Markedness Constraints

The stress system in Quenya calls for a series of constraints that can deal with its patterns. I would propose the following markedness constraints:

(15) a. WSP (WEIGHT-TO-STRESS PRINCIPLE) – heavy syllables are stressed[7]
b. NON-FINALITY – the last syllable of a word is unstressed
c. GRWD=PRWD (GRAMMATICAL WORD=PROSODIC WORD) – each word contains stress
d. CLASH – no adjacent stress
e. σ́σσ (ANTEPENULTIMATE) – the primary stress is on the antepenultimate syllable
f. SECONDARY – multisyllabic words have secondary stress on the initial syllable
g. *VOICEDOBSTRUENT]$_{\sigma}$ – voiced obstruents are not in the coda
h. * σV:C$_0$]$_{\#}$ – no long vowels in the final syllable of a multisyllabic word
i. *LONGMID-LOW – mid-low vowels are raised to mid-high when long
j. *SHORTMID-HIGH – mid-high vowels are lowered to mid-low when short
k. *ε]$_{\#}$ – delete /ε/ at the very end of a trisyllabic or longer compound word[8]

Constraints (15a) through (15f) are markedness constraints that will help with nailing down the stress patterns of Quenya. Constraint (15g) is also a markedness constraint, but one that will explain why words like *Moriquendë*, when shortened into *Moriquend*, lose their final consonant (as opposed to the explanation given that it loses it in order to shorten the syllable). Constraint (15h) is another markedness constraint that says multisyllabic words should not have a long vowel in the final syllable of the word. The multisyllabic piece of this constraint is necessary, since there are several monosyllabic words with a long vowel, such as the word *nō* ('before'). Constraints (15i)

[7] Tolkien stated that Quenya words cannot have primary stress that occurs before the antepenultimate syllable, which is why I will not mark a violation for words with unstressed heavy syllables if these syllables occur before the antepenultimate syllable.

[8] This rule is over specific for the Quenya language as a whole but serves our needs for the matter at hand. In reality, it is a lot more complicated that just a short /ε/ being deleted in such an environment but expounding on this would not prove helpful.

and (15j) are general markedness constraints that account for the fact that the mid-low vowels /ɛ/ and /ɔ/ never appear long while the mid-high vowels /eː/ and /oː/ never appear short. I am going to combine these constraints into a new constraint called MIDLENGTH, which will account for both Constraints (15i) and (15j). Finally, Constraint (15k) is another general markedness constraint which simply accounts for words like *Valinorë* and *Moriquendë* dropping their word-final /ɛ/, transcribed as *ë*.

3.2 Faithfulness Constraints

As with any markedness constraint, we need a counterbalance in the form of a faithfulness constraint.

(16) a. DEP-MORA-IO – do not add any morae
b. MAX-MORA-IO – do not take away any morae
c. MAX-IO – do not delete anything[9]

These constraints will counterbalance any changes syllable shortening or prosodic lengthening might make on words in order to prevent the words from changing too much. In principle, we could also include a DEP-IO constraint, which mandates that no segmental material be added to the input, but this situation does not ever occur in what we are looking at, so its inclusion would be superfluous.

3.3 Syllable Shortening Re-evaluated

I will now apply the constraints in (15) and (16) to our examples of syllable shortening in (6) and (7). In the Tableaux I will use IPA transcriptions.

(17) *Vala* + *mār*

/va.la+maːr/	GRWD=PRWD	NON-FINALITY	* σVːC$_0$]$_{\#}$	WSP	DEP-MORA-IO	σ́σσ [10]	MAX-MORA-IO	MAX-IO
☞ válimar[11]				*			*	
válimaːr			*!	*				
valimár		*!				**	*	
valimáːr		*!	*			**		
valíːmar				*	*!	*	*	
váːlimar				*	*!		*	
valimaːr	*!		*	*		***		

[9] 'IO' stand for 'input-output,' speaking to the desire of faithfulness constraints to preserve the input as much as possible in the output.

[10] ANTEPENULTIMATE (appearing in Tableaux as σ́σσ to preserve space) accrues a violation for every syllable away from the antepenultimate syllable that the stress falls upon. If there is no stress, it accrues three violations (since the antepenultimate syllable is the third-last).

[11] The second /a/ present in the root alternates with /i/ in all of the candidates, including the optimal one. This alternation is ignored here, for it is not relevant and is explained by diachronic factors rather than phonological ones. *Vala* is the singular form of 'Vala' while *Vali* is the archaic plural form of 'Vala' that did not change to the modern plural form *Valar* for the purposes of compound formation.

(18) *Cuivië + nēn*

/kui.vi.ɛ+neːn/	MID LENGTH	GRWD= PRWD	NON-FINALITY	* σV:C$_0$]$_{\#}$	WSP	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	*VOICED OBSTRUENT]$_\sigma$	MAX-IO
kuiviɛné:n			*!	*			**			
☞ kuivié:nɛn					*	*	*	*		
kuivie:nén			*!		*	*	**	*		
kuivíe:nɛn					**!	*		*		
kuiviɛne:n		*!		*	*		***			
kuivié:nen	*!*				*	*	*	*		

(19) *Vala + nōrë*

/va.la+noːrɛ/	MID LENGTH	*ɛ]$_{\#}$	GRWD= PRWD	NON-FINALITY	* σV:C$_0$]$_{\#}$	WSP	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
valinó:rɛ		*!						*		
valinó:r				*!	*			**		*
válino:r					*!	*				*
☞ válinɔr						*			*	*
valinór				*!				**	*	*
valí:nɔr						*	*!	*	*	*
válinor	*!					*			*	*

NON-FINALITY is very important in Quenya, as it eliminates multiple candidates from dominating the optimal candidate in all of the above Tableaux. Despite its importance, I decided to rank it behind GRWD= PRWD due to the fact that even monosyllabic words have stress and would need a constraint to outrank NON-FINALITY in order for this stress to apply. The words being added as the rightmost morphemes in Tableaux (17) and (18) are monosyllabic and thus would need to violate NON-FINALITY in order to not violate GRWD= PRWD when they appear alone.

There are multiple constraints that are not critically ranked, because should their orders be switched between each other, we can see that this would have no bearing over the winning candidate. For example, in Tableau (17), the markedness constraint ANTEPENULTIMATE is shown to not be critically ranked with two faithfulness constraints: DEP-MORA-IO and MAX-MORA-IO. If their orders in the Tableaux were to be switched, in any which order, the same candidate would still be chosen as the optimal candidate. This also holds for Tableaux (18) and (19).

Sometimes certain constraints are excluded from a particular Tableau because they are irrelevant for the particular instance. Such is the case for both CLASH and SECONDARY until Section 3.5 when we talk about secondary stress. Also, we did not need *VOICEDOBSTRUENT]$_\sigma$ in (17) and (19) given we were not working with voiced obstruents in those Tableaux.

(20) *Moriquendë* shortened

/mɔ.ri.kwɛn.dɛ/	MID LENGTH	*ɛ]$_{\#}$	GRWD= PRWD	NON-FINALITY	WSP	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	*VOICED OBSTRUENT]$_\sigma$	MAX-IO
mɔrikwéndɛ		*!					*			
mɔrikwénd				*!			**		*	
mɔrí:kwɛnd					*	*!	*		*	
mórikwɛnd					*				*!	

☞ mɔ́rikwɛn					*					*
mɔrikwɛ́n				*!			**			*
mɔ́:rikwɛn	*!				*	*				*

Tableau (20) shows us that syllable shortening does not account for *Moriquendë*, and more crucially *Moriquend*, becoming *Moriquen*. It is not a matter of rendering the final syllable light, which "syllable shortening" posits, because to do that we would need to delete the /n/ as well as the /d/ and create an open syllable out of the word-final syllable. What Quenya does not like is voiced obstruents in coda position; I have not been able to find any instance of a /b/, /d/, /g/ or /v/ in a coda in the extensive Quenya lexicon compiled by Strack (2021). Therefore, Quenya is not shortening the final syllable of 'Dark-elf' by removing the /d/, it is merely avoiding the marked voiced obstruent in the coda.

3.4 Prosodic Lengthening Re-examined

Prosodic lengthening should also be examined under a critical lens and not just accepted given what is said in the literature and in work put out by other sources like *Eldamo*, like we saw in 3.3 as these sources relate to syllable shortening.

We will now take a look at some examples of prosodic lengthening mentioned in 2.6 throughout Tableaux using the constraints posited in 3.1 and 3.2.

(21) *Vanima* + *-lion*

/va.ni.ma+li.ɔn/	MID LENGTH	GRWD=PRWD	NON-FINALITY	WSP	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
vanimá:liɔn				*	*!			
☛vanimáliɔn				*				
vanimalíɔn				*		*!		
vanimaliɔ́n			*!			**		

The first candidate is the actual output and should therefore be the candidate selected as the optimal candidate, but it is not. For prosodic lengthening to work as intended, we will need a new constraint. We need not go further into more examples in order to discern that what we have so far will not be sufficient to account for the addition of a mora. I propose the following markedness constraint:

(22) HEAVY]$_{STEM}$ – the last syllable of the stem is heavy

The faithfulness constraint DEP-MORA-IO will be enough to counterbalance this markedness constraint since the constraint in (22) is essentially saying to add a mora to a syllable if it is not heavy and DEP-MORA-IO says to not add any morae. Let us now take a look at Tableau (23):

(23) *Vanima* + *-lion*

/va.ni.ma+li.ɔn/	MID LENGTH	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ vanimá:liɔn				*		*			
vanimáliɔn				*	*!				

vanimalíɔn				*	*!		*		
vanimaliɔ́n			*!		*		**		

We can see that the addition of HEAVY]$_{STEM}$ ensures that the optimal candidate is not usurped. It must be ranked ahead of DEP-MORA-IO, being the constraint to have eliminated the surface form in Tableau (21). Now we need to ensure this new constraint works with the rest of our examples from 2.6.

(24) *Ciryali + -nen*

/kir.ja.li+nɛn/	MID LENGTH	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ kirjalí:nɛn				*		*	*		
kirjálinɛn				*	*!				
kirjalínɛn				*	*!		*		
kirjalinɛ́n			*!		*		**		

(25) *Cuivië + nēn = Cuiviēnen*

/kui.vi.ɛ+ne:n/	MID LENGTH	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ kuivié:nɛn				*		*	*	*	
kuivɪɛné:n			*!		*		**		
kuivíɛne:n				*	*!				
kuiviɛ́ne:n				*	*!		*		
kuivɪɛ́:nen	*!*			*		*	*	*	

(26) *Atanatar + -i = Atanatāri*

/a.ta.na.tar+i/	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ atanatá:ri					*	*		
atanátari				*!				
atanatári				*!		*		
ataná:tari				*!	*			

As we can see, this new constraint solves the problem encountered in Tableau (21). But now we need to also ensure that the examples in 2.7 do not trigger prosodic lengthening. Candidates undergoing prosodic lengthening are in yellow.

(27) *Lassë + -li*

/las.sɛ+li/	MID LENGTH	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ lássɛli					*				
lassé:li				*!		*	*		
lassɛ́li				*!	*		*		
lá:ssɛli					*	*!			
lassɛ́:li	*!			*		*	*		

(28) *Miruvōrë + -va*

/mi.ru.vo:.rɛ+va/	MID LENGTH	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	*VOICED OBSTRUENT]$_{σ}$	MAX-IO
☞ miruvó:rɛva					*					
miruvo:ré:va				*!		*	*			
miruvo:réva				*!	*		*			
miruvɔ́rɛva					*			*!		
miruvo:rɛ́:va	*!			*		*	*			
miruvɔrɛ́:va	*!					*	*	*		

(29) *Ōmataina + -r*

/o:.ma.taj.na+r/	MID LENGTH	GRWD=PRWD	NON-FINALITY	* σV:C$_0$]$_{#}$	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ o:matájnar					*	*		*		
o:mátajnar					**!	*				
o:matajná:r			*!	*	*		*	**		
o:matájna:r				*!	*		*	*		

(30) *Arata + -rya*

/a.ra.ta+rja/	GRWD=PRWD	NON-FINALITY	WSP	HEAVY]$_{STEM}$	DEP-MORA-IO	σ́σσ	MAX-MORA-IO	MAX-IO
☞ aratárja						*		
aratá:rja					*!	*		
arátarja			*!					

In Tableaux (27) through (29) we can see that prosodic lengthening does not apply because the candidates that undergo prosodic lengthening violate important constraints which the optimal faithful candidates do not. For example, the prosodic lengthening candidate in Tableau (30) violates the DEP-MORA-IO faithfulness constraint and is thus eliminated. Meanwhile, the true surface form has no such violation and is able to be selected as the optimal candidate. This perfectly sums up the superfluity of prosodic lengthening overapplying in situations where the stem-final syllable is already heavy, which was one of the limitations to prosodic lengthening that was listed in Section 2.7.

3.5 Initial Secondary Stress Analyzed

Finally, I would like to take this subsection to look at non-metrical secondary stress as it occurs in word-initial positions, as mentioned in Section 2.8.

We will now make use of the CLASH and SECONDARY constraints because we are finally dealing with primary stress alongside secondary stress. In the Tableaux below, the constraints will not affect primary stress, as we have already established the relevant patterns. As such, the constraint mandating that every word bear stress (GRAMMATICAL WORD = PROSODIC WORD) will not be used.

(31) *Oromardi*

/ɔ.rɔ.mar.di/	MIDLENGTH	NON-FINALITY	WSP	DEP-MORA-IO	CLASH	SECONDARY[12]
☞ ɔ̀rɔmárdi						
ɔrɔ̀márdi					*!	*
ɔrɔmárdì		*!			*	***
ɔ̀ːrɔmárdi	*!			*		
ɔrɔmárdi						*!***

(32) *Andūnë*

/an.duː.nɛ/	MIDLENGTH	NON-FINALITY	WSP	DEP-MORA-IO	CLASH	SECONDARY
☞ àndúːnɛ					*	
andúːnɛ̀		*!	*		*	**
andúːnɛ			*!			***
andúːnɛ̀ː	*!	*	*	*	*	**

(33) *Ōmaryo*

/oː.mar.jɔ/	MIDLENGTH	NON-FINALITY	WSP	DEP-MORA-IO	CLASH	SECONDARY
☞ òːmárjɔ					*	
oːmárjɔ̀		*!	*		*	**
oːmárjɔ			*!			***
oːmárjɔ̀ː	*!	*	*	*	*	**

(34) *Avānier*

/a.vaː.ni.ɛr/	MIDLENGTH	NON-FINALITY	WSP	DEP-MORA-IO	CLASH	SECONDARY
☞ aváːniɛr			*			****
àváːniɛr			*		*!	
aváːnìɛr			*		*!	**
aváːniɛ̀r		*!				***
aváːniɛ̀ːr	*!	*		*		***
àːváːniɛr			*	*!	*	

Tableau (31) shows an example of a seamless application of secondary stress on the initial syllable where there is a syllable gap between it and the primary stress, thus satisfying both CLASH and SECONDARY.

Tableaux (32) and (33) show that these words need secondary stress on the initial syllable in order to satisfy WSP. WSP is crucially ranked ahead of CLASH, otherwise these words would never be able to have word-initial secondary stress given the location of the primary stress. In addition, SECONDARY needs to be ranked below CLASH, since there are indeed times where secondary stress would have been applied to the first syllable were it not for the CLASH constraint, as in the second candidate of Tableau (34).

[12] Similar to how ANTEPENULTIMATE violations were tallied, SECONDARY accrues a violation for every syllable away from the initial one that the secondary stress falls upon. If there is no secondary stress, the constraint accrues as many violations as there are syllables in the word.

Tableau (34) shows that WSP does not save the word-initial secondary stress candidate, because the initial syllable is not heavy and thus does not attract the secondary stress. CLASH rules such candidates out.

4. Conclusion

Throughout this paper, we have seen various prosodic processes that occur in Quenya. We have taken a look into the stress assignment of both primary and secondary stress as it pertains to discourse and examined two phonological processes that occur in the morphological construction of words.

It is my belief that because no academic linguistic study has been done on Quenya, the current literature and reporting on it are somewhat rudimentary. In the future, I think scholars researching Quenya ought to use more linguistic evidence for theories and studies in lieu of creating generalizations and problematic rules. Given how intricate and fleshed-out the conlang Quenya truly is, I strongly believe the language deserves more in-depth study. Optimality Theory has proven to be a very capable tool that could and arguably should be used in this pursuit.

I conclude that syllable shortening and prosodic lengthening are truly motivated out of a desire to avoid word-final stress more than anything, since long vowels often attract stress. But as we saw with prosodic lengthening, morpheme boundaries are also important and often demarcated. Even the process erroneously called "syllable shortening" and particular phenomena like word-final /ɛ/ dropping are sensitive to morphology. This goes to show just how interconnected the various realms of language are, even in conlangs like Quenya. In this paper we looked at morphophonological phenomena, but I would find it extremely exciting and fruitful to explore how syntax, semantics or pragmatics leave their own impacts on this remarkable language, but that is a topic for another time.

The fact that this language, its fellow members of the Elvish language family (Sindarin, Telerin, Avarin, Quendian, etc.) and other unrelated languages like Khuzdul and Adûnaic were all invented by a single person displays the genius of Tolkien and his love for languages and imagination in general. If there is one thing that conlangs can teach us, it is that imagination can bring forth incredible things and leave a lasting legacy behind for the imaginative.

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