Syllable Structure and Prosodic Word Boundaries in Ósósọ̀

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Abstract

This paper investigates the syllable structure and Prosodic Word (PWd) boundaries of Ósósọ̀, an understudied North-Central Edoid language, spoken in Edo State, Nigeria. Drawing on Syllable Theory, Moraic Theory, and Prosodic Hierarchy Theory, the study establishes a clear distinction between the restrictive phonemic syllable inventory and its richer phonetic realizations. Phonemically, Ósósọ̀ permits only open syllables of the V and CV type, with CV as the canonical free template and monomoraic V syllables operate exclusively as bound prefixes. Phonetically, surface CCV clusters arise through vowel elision (notably before /r/) and glide formation. These productive, boundary-sensitive repair strategies resolve vocalic hiatus primarily at the edges of the Prosodic Word (PWd). The Prosodic Word itself is subject to size restrictions regulating the minimal free lexical PWd as a single CV syllable, while the maximal monomorphemic PWd is trisyllabic (V. CV.CV or CV.CV.CV). Larger forms result from compounding or reduplication. This work provides the first systematic account of syllable-PWd boundary interactions in Ósósọ̀, offering fresh data for Edoid phonology and West African prosodic typology.

Keywords: *Syllable structure, Prosodic Word, Glide Formation, Vowel Elision, Ósósọ̀, Edoid*

1. Introduction

Syllable structure is one of the most fundamental aspects of phonological organization and every language group continuous speech into discrete units. The study of syllable structure and prosodic weight has therefore long been central to phonological theory as it provides insight into how languages organize sounds and encode meaning. However, the permissible shapes of those units vary considerably across languages (Clements & Keyser 1983; Blevins 1995; Zec 2007). Some languages restrict themselves to simple open syllables; others permit complex onsets, codas, and branching rhymes. These differences are not merely descriptive, rather, syllable structure interacts with higher prosodic constituents, morphological boundaries, and repair strategies that maintain

phonological well-formedness. Within the Niger-Congo phylum, and particularly among Edoid languages, open syllables predominate and true codas are rare (Elugbe 1989). A frequent consequence of this preference is the creation of vocalic hiatus at morpheme boundaries, which languages resolve through processes such as vowel elision and glide formation (Casali 1996, 2011).

Although the open-syllable character of Edoid languages is well documented, far less attention has been paid to how syllable constraints interface with the Prosodic Word (PWd). This paper addresses that gap using empirical data from Ósósọ̀. Specifically, the study first establishes the phonemic syllable inventory of Ósósọ̀ and contrasts it with surface phonetic realisations. Second, it identifies the productive repair strategies (vowel elision and glide formation) that derive complex onsets. Third, it maps the lower and upper bounds of the Prosodic Word and shows how syllable well-formedness constraints and Prosodic Word size and alignment constraints interact.

1.1 The Ósósọ̀ language

Ósósọ̀ (ISO 639-3: *oso*; Glottolog: *osos1238*) belongs to the North-Central (PNCE) subgroup of Edoid languages (Elugbe 1989; Lewis 2013). It is spoken by over 50,000 people (Ethnologue, 2026) across these four quarters; Òkhè, Ánnì, Ìkpènáá, and Égbétùà, in Akoko-Edo Local Government Area of Edo State, Nigeria. Native speakers identify the language as Ósósọ̀ [ósósɔ̀],
while non-indigenes and diaspora speakers often use the form Ọ̀sọ́sọ̀.

The language has a relatively large consonant inventory of 30 phonemes, consistent with sound patterns explained by Maddieson (1984) They consist: eight stops (including labiovelar kp and gb); three affricates /ʧ, ʤ, ts/; eight fricatives /s, z, f, v, ʃ, x, ɣ/ and the bilabial fricative /β/, (orthographically rendered as ‘vb’); three nasals - /m,n ɲ/; five approximants (comprising the liquids /l, w, j/, the voiced alveolar trill /r/ and its voiceless counterpart ɾ/) and three lenis consonants - /m̩, d̩, b̩/, (orthographically written as mh,dh and bh). It has a seven oral vowel system /i, e, ɛ, a, ɔ, o, u/ and these become nasalized in the environment of nasal consonants yielding the allophones [ĩ, ũ, ẽ, õ, ɛ̃, ɔ̃, ã]. Ósósọ̀ operates a two-tone system (High and Low) with phonetic downstep (Legbeti, 2024). Typical of the Edoid languages, vowels interact dynamically at morpheme boundaries, frequently triggering repair strategies that preserve the language’s strict preference for open syllables

2. Literature Review

Early structuralist traditions largely treated the syllable as a phonetic intuition, but generative phonological theory has since established it as a fundamental, hierarchical prosodic unit that organizes segmental material and defines the domain for phonotactic constraints (Kahn, 1976; Selkirk, 1982; Clements & Keyser, 1983). Goldsmith (1990: 108) emphasizes that the syllable "provides the domain for phonotactic constraints and prosodic weight," thereby situating it at the interface of segmental and suprasegmental phonology. Under standard models, syllable structure is further regulated by the Sonority Sequencing Principle, which requires a rise in sonority toward the nuclear peak and a fall toward any coda (Blevins 1995).

2.1 Cross-Linguistic Syllable Typology and Weight

Cross-linguistically, syllable inventories exhibit remarkable structural variation. Jakobson (1962) observed that the CV represents the universal, unmarked baseline of human language and every language possesses CV syllables but some permit only CV or V structures. Beyond this baseline, however, inventories vary from highly restricted open systems to structurally complex closed systems (Blevins, 1995). This typological diversity has been central to debates about universals in syllable structure, with scholars asking whether certain patterns, such as the preference for open syllables, reflect innate universal constraints or language-specific phonetic developments (Itô, 1989; Zec, 2007). To understand how these varied structural shapes contribute to prosodic weight distinctions, generative frameworks often turn to Moraic Theory (Hyman, 1985; Hayes, 1989). Within this framework, syllables are formally categorized as either light (monomoraic, μ) or heavy (bimoraic, $\mu\mu$) depending on their internal segmental composition. Even in many West African languages that lack classic heavy syllables (such as those with phonemic codas or long vowels), moraic structure remains crucial for explaining processes like vowel deletion, glide formation, and overall rhythmic organisation of the utterance.

2.2 Syllable Structure in The Edoid languages.

Within the Niger-Congo phylum, and particularly the Benue-Congo branch, syllable structure tends toward simplicity, with open syllables predominating and consonant clusters being rare. Elugbe (1989) established that Proto-Edoid and its daughter languages are characterised by open-syllable systems in which CV is the dominant template and complex onsets are either absent or heavily restricted. Subsequent studies of individual Edoid languages (Egbokhare 1990 on Emai; Aziza 1997 on Urhobo;

Donwa-Ifode 1982) confirm the near-absence of underlying consonant clusters and the prevalence of vowel-initial nouns. A recurring consequence of this open-syllable preference is the frequent creation of vocalic hiatus ($V_1\#V_2$) at morpheme boundaries and to resolve hiatus like this, languages use a limited set of strategies (Casali 1996, 2011): vowel elision, glide formation, coalescence, epenthesis, or diphthongisation.

In most Edoid and Yoruboid languages, the two most productive repairs are elision of one of the vowels and the desyllabification of a high vowel into a glide. The choice between these strategies often depends on the quality of the vowels involved and on the morphological or prosodic domain in which the hiatus occurs. Studies of Bantu and Kwa languages (Pulleyblank, 1988) reveal that syllable structure is closely tied to tonal behavior; with vowel quality and segmental length often determining prosodic weight. In addition, morphological processes such as reduplication and affixation are also systematically constrained by syllable typology. All of these reinforces the centrality of the syllable in both phonology and morphology.

2.3 The Prosodic Word as a domain of phonological activity

Phonological processes do not apply indiscriminately across an utterance; rather, they typically operate within constituents of the Prosodic Hierarchy (Nespor & Vogel 1986; Selkirk 1982, 2011) Of particular importance for the present study is the Prosodic Word (PWd/ω), the constituent that most closely corresponds to a morphological word plus any phonologically dependent material, serving as the primary domain within which these structural templates and repair strategies operate. Two types of constraints are especially relevant to this study:

1. *Size constraints* limit the minimum and maximum number of syllables (or feet) that a PWd may contain.
2. *Alignment/Match constraints* require that the edges of morphological words coincide with the edges of Prosodic Words whenever possible (Selkirk 2011). When exact matching is impossible, repair strategies are often triggered precisely at the PWd boundary

Although previous literature has established the open-syllable character of Edoid languages and documented their primary hiatus-resolution strategies, detailed studies exploring the precise relationship between syllable structure and the Prosodic Word in this language family remain scarce. Available evidence suggests that PWd size and edge alignment play a critical role in regulating syllable structure, hiatus resolution, and tonal association. The present study addresses this empirical gap by providing a comprehensive account of both the phonemic and phonetic syllable inventory of Ósósọ̀

and by establishing the lower and upper bounds of its Prosodic Word. In doing so, this work contributes novel data to the typology of West African prosodic systems by examining how restrictive underlying syllable inventories, productive boundary repairs, and strict monomorphemic root-size limits interact with Prosodic Word well-formedness constraints.

3. Theoretical framework

To analyze the interaction between syllable and word boundary in Ósósọ̀, this study adopts the Non-Linear Prosodic Phonology framework of Goldsmith, 1990; Selkirk, 1982, 1984; Nespor & Vogel, 1986. That way, rather than viewing speech as a flat string of linear segments, this model organizes phonological representations into an autonomous, hierarchical structure,

3.1. Syllable Theory

Syllable Theory (Selkirk, 1982; Clements & Keyser, 1983) provides the structural foundation for analyzing segmental organization. It posits that the syllable (σ) is a hierarchical constituent rather than a flat string of phonemes. Under the standard constituency model, the syllable branches into an Onset (initial consonant) and a Rhyme, with the Rhyme further dividing into a Nucleus (the vocalic core) and an optional Coda (post-vocalic consonant). This framework captures the rigid structural constraints observed in Ósósọ̀, such as the language's absolute prohibition against simultaneous complexity in both onset and rhyme, alongside a strong structural preference for open syllables.

Throughout this system, the Prosodic Word (PWd) emerges as a central organizing domain rather than a passive structural boundary. Segmentally, the minimal free lexical PWd is a single CV syllable, whereas the maximal monomorphemic PWd is strictly trisyllabic. Bound V prefixes do not project independent Prosodic Words, and major repair processes apply preferentially at PWd edges. Furthermore, there is an absolute prohibition against simultaneous complexity in both the onset and the rhyme. These size and alignment restrictions interact directly with syllable well-formedness constraints, showing that the PWd actively regulates both segmental architecture and morphological mapping.

Crucially, this restructuring extends to the suprasegmental domain. The desyllabification of vowels during repair processes such as glide formation triggers dynamic tonal reassociations. When a high vowel loses its syllabic status, its underlying tone delinks and reassociates with the remaining vocalic head, thus generating surface

contour tones. This dual sensitivity to both segmental weight and suprasegmental stability highlight the Prosodic Word as the primary locus of phonological activity in Ósósọ̀, where segmental reorganization directly conditions tone mapping.

Ósósọ̀, in a broader theoretical and comparative light, aligns with the general Edoid preference for open syllables while offering distinct typological insights into North-Central Edoid prosodic systems. While previous literature has documented general hiatus-resolution strategies in Edoid, detailed empirical work mapping the exact interplay between syllable structure and Prosodic Word constraints in individual languages has remained scarce. By establishing the phonemic and phonetic limits of Ósósọ̀, this study fills a key empirical gap, advances theoretical discussions on the phonetics-phonology interface in tone languages, and demonstrates that the syllable functions not merely as a static template, but as an active arena where segmental form and tonal meaning converge.

Although modern conventions sometimes map segments directly to a directory-style prosodic skeleton (Figure 1a), this study adopts the classic hierarchical generative constituent tree (Figure 1b) to contrast basic underlying templates with surface realizations in the representation of the syllable structure of Ósósọ̀.

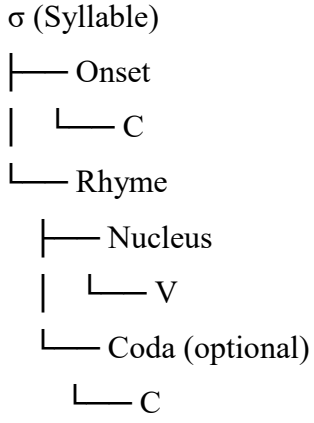


Figure 1a: *Directory-Style (Indented)*

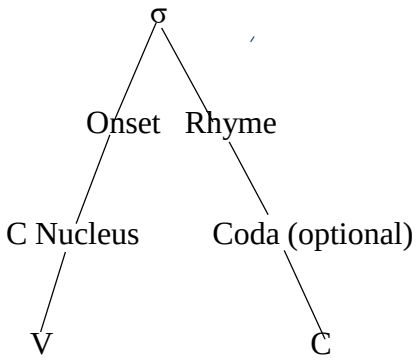


Figure 1b*: Classic Constituent Tree*

3.2. Moraic Theory

Moraic Theory (Hyman 1985; Hayes 1989) supplies the prosodic weight framework, explaining how syllables contribute to prosodic weight. Within the framework, syllables are categorized as either light (monomoraic, μ) or heavy (bimoraic, μμ) based on their internal composition. A short vowel contributes one mora, whereas a long vowel, diphthong, or weight-bearing coda consonant contributes two moras.

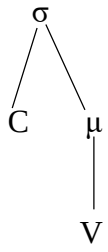


***Figure 2a**: Canonical Monomoraic Light syllable (CV) in Ósósọ̀ Underlyingly*

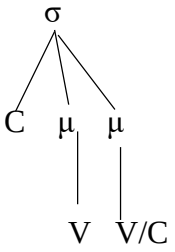


***Figure 2b**: Bimoraic Heavy Syllable (CVV/CVC), Universal Baseline avoided by Ósósọ̀*

Although in Ósósọ̀ every syllable is underlyingly monomoraic and maintains a strict open syllable system, lacking both long vowels and codas, nevertheless, the moraic tier is indispensable for modeling Tone-Bearing Units (TBUs). Specifically, vowel deletion occurs in rapid speech, reducing the numbers of moras in a sequence. Similarly, while glide formation preserves underlying segmental count, it redistributes its material onto a single mora, directly altering syllable internal structure. Furthermore, when a segment in V_1 position undergoes elision across word boundaries ($V_1 \# V_2 \rightarrow V_2$) its underlying mora and floating tone re-link to adjacent vocalic positions, directly influencing surface rhythm and tonal realization. This makes moraic theory particularly useful since it helps explain that specific repair strategies are preferred as they preserve tone and timing while maintaining Ósósọ̀'s strict requirement for light, open syllables

3.3. The Prosodic Word (*ω*) & Boundary Domains

While the syllable (σ) and mora (μ) handle internal timing and structure, this study uses Prosodic Hierarchy Theory (Selkirk, 1984; McCarthy & Prince, 1990) to define the larger domains where word-level rules apply in Ósósọ̀. The Prosodic Word **(*ω*)** tier marks the boundary where grammar (morphology) meets sound structure (phonology). Following Nespor & Vogel (1986) and Selkirk (1984, 2011), the relevant portion of the Prosodic Hierarchy for the present study is italicized:

Utterance (υ)
> Intonational Phrase (ι)
> Phonological Phrase (φ)
> *Prosodic Word (ω / PWd)*
> Foot (Σ)
> Syllable (σ)

The Prosodic Word (PWd) is the central domain for the phenomena examined in this work since the PWd is the phonological constituent that typically corresponds to a morphological word plus any bound elements (clitics, certain prefixes) that are phonologically dependent on it. Two families of constraints govern their formation:

1. *Prosodic Minimality (ω_{min}) or Size constraints:* Under the Strict Layer Hypothesis, a well-formed Prosodic Word (ω)must contain at least one Foot (F), establishing a bimoraic minimal word size (ω_{min} = μμ). Any short, sub-minimal lexical root (CV_{short}) must undergo repair such as vowel lengthening or obligatory prefixation, before it can stand alone as a independent word.
2. *Boundary Sandhi or Minimal free lexical PW:* The ω domain separates rules that apply *inside* a word from those that happen *between* words. When words meet in phrase contexts (like Verb + Object or Noun + Adjective), Ósósọ̀ triggers boundary repairs to resolve vowel hiatus. Mapping these environments onto the ω tier accounts for how segments are deleted or re-syllabified across prosodic word boundaries.

In summary, Syllable theory captures the organizational constraints on syllable formation, while Moraic theory explains the prosodic consequences of those constraints and Prosodic theory tracks word boundary, minimal word requirement and hiatus resolution domain. This multi-tiered approach allows us to place Ósósọ̀ within broader debates on syllable universals and prosodic weight, while showing how its specific boundary patterns work in practice.

4. Methodology

The primary data for this study was collected during two fieldwork visits to the Ósósọ̀ community in Edo State, Nigeria. Ten competent native speakers participated (six female and four male), all of whom were born and raised in the community and actively use the language in daily communication. This balanced sample ensured that the data reflected natural speech patterns. Secondary data were drawn from the Ósósọ̀ language and Ovbiko initiation rite documentation project, funded by the Endangered Languages Development Programme (ELDP) and available open access via the Endangered Languages Archive (ELAR) at https://elararchive.org/dk0676, (the use of open-access ELDP/ELAR materials adhered to the archive's licensing conditions, ensuring that the documentation serves both scholarly and community interests). These materials provided additional lexical and morphophonological evidence, supplementing the

fieldwork corpus. Comparative Edoid studies, including Elugbe (1989), Egbokhare (1990), Donwa-Ifode (1982), and Aziza (1997), were also consulted to situate Ósósọ̀ within the broader typology of Edoid phonology.

Data is a combination of elicitation and naturalistic speech, with speakers providing wordlists and sentence-level utterances. All recordings were made using a ZOOM H5 digital recorder set at 44.1 kHz, 24-bit WAV format to ensure high-quality acoustic capture. Transcriptions were carried out in ELAN, with tonal and segmental annotations verified through acoustic analysis in PRAAT. This workflow allowed for precise identification of syllable boundaries, vowel quality, and prosodic features relevant to the study.

5. Data Analysis and Presentation

5.1. Phonemic Syllable Structure

At the underlying phonological level, Ósósọ̀ exhibits a highly restrictive inventory consisting of only two basic syllable templates: V and CV. The vowel is the indispensable element of every syllable, while consonants serve primarily as non-branching onsets. underlying syllable is presented in data 1:

Data 1:

	underlying	**syllable structure**	**gloss**
a.	/ɛ́.na/	→ V.CV	‘goat’
b.	/í.tà/	→ V.CV	‘father’
c.	/ɔ̀.gbɔ̀/	→ V.CV	‘person’
d.	/mɔ̀/	→ CV	‘take’
e.	/dà/	→ CV	‘drink’
f.	/ʃà/	→ CV	‘pay’

From the data, two important generalisations emerge. First, every underlying morpheme terminates in a vowel, confirming an absolute ban on codas. Second, monomoraic V syllables never constitute free lexical items; they occur only as bound prefixes (primarily noun-class or nominalising prefixes). The canonical free syllable is therefore CV.

5. 2. Phonetic Syllable Structure and Repair Strategy

While the phonemic inventory is strictly open and non-complex (V and CV), the surface phonetic form of CCV syllable shows considerable structural complexity in

Ósósọ̀. The two productive morphophonemic processes that derive CCV syllable in the language are vowel elision and glide formation.

5.2.1. Vowel Elision before /r/

In rapid speech, when a sequence of $C_1V_1C_2V_2$ occurs and C_2 is the liquid /r/, the first vowel (V_1) is systematically deleted. The result is a derived complex onset [C_1r].

Data 2:

	Underlying	Surface realization		phonetic form	gloss
a.	/vì.rà.sé/	→ [vrà.sé]	CCV.CV	CrV.CV	"stand up"'
b.	/vù.rɛ̀.ʃĭ/	→ [vrɛ̀.ʃǐ]	CCV.CV	CrV.CV	'lie down!'
c.	/vì.rà/	→ [vrà]	CCV	CrV	'go!'

5.2.2. Glide Formation:

In Ósósọ̀, anywhere a high vowel /i/ or /u/ is followed by a non-high vowel, the high vowel loses its syllabicity and surfaces as a glide [j] or [w]. Implicationally, If V_1 is a high vowel /i/ or /u/, it frequently loses its status as a nucleus and shifts into the onset tier as a non-syllabic glide [j] or [w], preserving the input features while compressing the structural foot into a surface syllable.

Data 3: *Glide formation (within words)*

	Underlying	Surface realization		phonetic form	gloss
a.	/ì.fúè.jè/ →	[ìfwéjè]	V.CCV.CV	V.CwV.CV	'wash'
b.	/ú.kúɛ̀/ →	[úkwɛ̂]	V.CCV	V.CwV	'head'
c.	/á.múɛ̀/ →	[ámwɛ̂]	V.CCV	V.CwV	'knife'

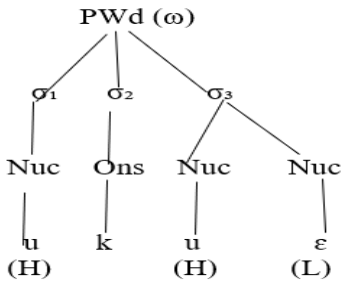


Figure 3a: underlying form /ú.kú.è/

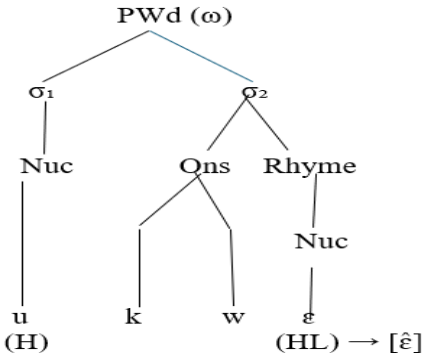


Figure 3b: internal desyllabification of /ú.kú.è/ into [ú.kwê]

Note that When /u/ desyllabifies into [w], its High tone (H) delinks and dock on the final vowel /ɛ/ (which already has a Low tone *L*), forming the surface Fall contour.

Data 4: *Glide formation (across morpheme boundaries)*

	Underlying		**Surface realization**	**phonetic form**		**gloss**
a.	/ìfì # èvá/	→	[ìfjévá] V.CCV.CV	V.CjV.CV		'forty'
b.	/kù # àmɛ̀/	→	[kwàmɛ̀]	CCV.CV	CwV.CV	
	'to bathe'					
c.	/tù # òsɛ̀/	→	[twòsɛ̀]	CCV.CV	CwV.CV	
	'to spit'					

These processes demonstrate that surface CCV structures are never underlying; they are derived by boundary-sensitive repairs that restore well-formed open syllables while preserving as much input material as possible.

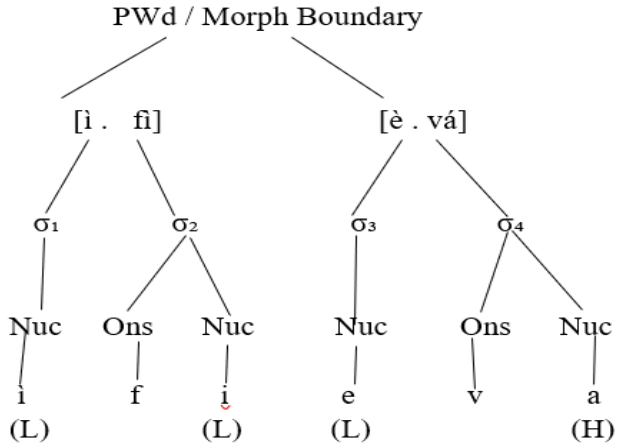
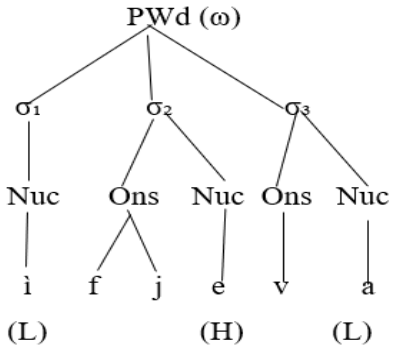


Figure 4a: cross-boundary hiatus resolution of /ìfi # èvá/ underlying representation



[ifjeva] 'forty'

Figure 4b: cross-boundary hiatus resolution of /ìfi # èvá/ surface derived representation

The final vowel /i/ of the prefix/first morpheme loses its syllabic nucleus status across the boundary and shifts into the onset as [j]

5.3. Prosodic Word boundaries and size restrictions

The Prosodic Hierarchy of Selkirk (1984, 2011) and Nespor & Vogel (1986) provides a clear formal account of the size restrictions and boundary phenomena observed in Ósósọ̀. The relevant levels for the present analysis are the Prosodic Word (ω / PWd) and the syllable (σ):

Prosodic Word (ω)

↓

Syllable (σ)

5.3.1. Minimal free lexical PWd

The smallest free (non-affixal) Prosodic Word is a single CV syllable as monosyllabic V forms occur only as bound prefixes and do not project independent PWds. This establishes a minimality requirement that a free PWd must contain at least one onset consonant.

Data 5:

a. [é.na] ω ‘goat’
b. [í.tà] ω ‘father’
c. [ò.gbɔ̀] ω ‘person’

Based on data 6, Monosyllabic forms in the verbal category are also incorporated as the PWd:

Data 6:

a.	/rè/	→	CV	‘eat’
b.	/dɛ̀/	→	CV	‘buy’
c.	/kpà/	→	CV	‘carry’
d.	/gbe/	→	CV	‘beat’

5.3.2. Maximal monomorphemic PWd

The largest monomorphemic root that constitutes a single PWd is trisyllabic (V.CV.CV or CV.CV.CV). Roots longer than three syllables are not attested as single monomorphemic PWds. Any longer surface form is the product of compounding or reduplication, each of which creates additional prosodic structure

Data 7:

a.	[à.kà.ɲà]	→		V.CV.CV	‘work’
b.	[ú.kú.ba]	→		V.CV.CV	‘money’
c.	[ɔ́.dà.fɛ̀]	→	`	V.CV.CV	‘king’
d.	[i.re.we]	→	`	V.CV.CV	‘breast’
e.	[ɔ.mɔ.se]	→	`	V.CV.CV	‘man’

5.3.3. Repair strategies at PWd edges

The major repair strategies in Ósósọ̀ are vowel elision and glide formation and they both apply preferentially at morphological boundaries that correspond to Prosodic Word edges. This is particularly clear in Data 4, where hiatus across word boundaries

is resolved by glide formation, yielding a single well-formed PWd (or a recursive PWd structure). Inside a monomorphemic root, the same sequences are either already resolved or more stable. These facts confirm that the Prosodic Word is an active phonological domain that regulates both syllable well-formedness and the mapping between morphology and prosody.

5.4. Phonotactic constraints: a summary

Phonotactically, Ósósọ̀ adheres strictly to an open-syllable structure in which true codas are completely absent. At the underlying level, the language licenses only V and CV templates. Free lexical items require a minimum of a CV syllable to stand independently; bare V syllables are morphologically bound and cannot occur as isolated free forms. Surface-level phonotactics present a slightly expanded inventory of V, CV, and CCV templates. Crucially, surface onset clusters are strictly limited to two consonants (C_1C_2V) and arise exclusively through productive phonological derivations. Every surface CCV structure is therefore derived from an underlying $C_1V_1C_2V_2$ sequence or through the resolution of vocalic hiatus, underscoring the derived nature of complex onsets in the language.

In Ósósọ̀, structural complexity is strictly regulated across the syllable. The grammar enforces an absolute prohibition against simultaneous complexity in both the onset and the rhyme. Because codas are non-existent, complex rhymes cannot co-occur with derived onset clusters, maintaining a clean distribution of segmental weight across the syllable template.

Finally, these phonotactic constraints are bound by explicit Prosodic Word requirements. The minimal free Prosodic Word (PW_d) is defined as a single CV syllable, guaranteeing that no bare vowel can serve as an independent lexical domain. At the upper limit, a monomorphemic Prosodic Word is constrained to a maximum of three syllables, establishing clear structural bounds for root morphemes within the language.

6. Conclusion

This study has provided the first systematic account of syllable structure and Prosodic Word (PWd) boundaries in Ósósọ̀, an understudied North-Central Edoid language. By synthesizing Syllable Theory, Moraic Theory, and Prosodic Hierarchy Theory, the analysis demonstrates a clear divergence between the language's highly restrictive phonemic inventory (V and CV only) and its richer phonetic realizations. Surface (CVV) structures are not underlying; rather, they are derived through two productive,

boundary-sensitive repair strategies: vowel elision (particularly before /r/) and glide formation. These synchronic repairs are deployed at morpheme edges to preserve syllable well-formedness while managing vocalic hiatus.

Throughout this system, the Prosodic Word emerges as a central organizing domain rather than a passive structural boundary. Segmentally, the minimal free lexical PWd is a single CV syllable, whereas the maximal monomorphemic PWd is strictly trisyllabic. Bound V prefixes do not project independent Prosodic Words, and major repair processes apply preferentially at PWd edges. Furthermore, the PWd strictly caps surface onset clusters at two consonants and enforces an absolute prohibition against simultaneous complexity in both the onset and the rhyme. These size and alignment restrictions interact directly with syllable well-formedness constraints, showing that the PWd actively regulates both segmental and morphological mapping.

Crucially, this structural restructuring extends to the suprasegmental domain. The desyllabification of vowels during repair processes, such as glide formation, triggers dynamic tonal reassociations. When a high vowel loses its syllabic nucleus status, its underlying tone delinks and reassociates with the remaining vocalic head, generating surface contour tones. This dual sensitivity to segmental weight and suprasegmental stability highlights the Prosodic Word as the primary locus of phonological activity in Ósósọ̀, where segmental reorganization directly conditions tone mapping.

Finally, in a broader theoretical and comparative light, Ósósọ̀ aligns with the general Edoid preference for open syllables while offering distinct typological insights into North-Central Edoid prosodic systems. Previous works have documented general hiatus-resolution strategies in Edoid but detailed empirical work that map the exact interplay between syllable structure and Prosodic Word constraints in individual languages are largely scarce. By establishing the phonemic and phonetic limits of Ósósọ̀, this study fills a key empirical gap, advances theoretical discussions on the phonetics–phonology interface in tone languages, and demonstrates that the syllable functions not merely as a static template, but as an active arena where segmental form and tonal meaning converge.

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