

# Nasalization of the Initial Consonant (d-) of the Present Perfect Tense Marker (-dẹ) After the Main Verb in Ịzọn: A Case Study of the Tarakiri Dialect

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In Ịzọn, as in Akan and Edo, nasalization is distinctive, because it brings about a change in meaning as in: /su/ “fight” and /sũ/ “to stretch”; /bɔu/ “soft” and /bɔũ/ “honey”. /d/ and /n/ are both alveolar stops in Ịzọn: /d/ is an oral stop, while /n/ is a nasal stop. Also, while /d/ is a voiced alveolar plosive, /n/ is an (voiced) alveolar nasal. This means, in effect, that the two consonants (/d/ and /n/) are homorganic in Ịzọn, because they are made at the same place of articulation and with the same articulators. However, in many verbs, whose present perfect tenses are represented by -dẹ in the Tarakiri dialect of Ịzọn, the -dẹ is changed to -nẹ after the main verb. That is, in phonological terms, /d/ rewrites as /n/ in the environment after a syllable consisting of a nasal consonant or a nasalized vowel, i.e., [+ voice + alveolar + plosive] becomes [+ alveolar + nasal] after [+ nasal]. This paper looks at, describes, and examines this phonological process/phenomenon of the replacement of an oral stop by a nasal stop after a syllable consisting of a nasal consonant or a nasalized vowel.

*Keywords:* Ịzọn, Tarakiri, homorganic, nasal, nasalization, -dẹ, -nẹ, assimilation

## Introduction

### A Brief Introduction to Ịzọn

Ịzọn is the major one of the Ijoid group of languages spoken in the Niger Delta Region and the South-South geo-political zone of Nigeria. Ịzọn is spoken in Bayelsa, Delta, Edo, Ondo, and Rivers State of Nigeria.

### Tarakiri Clan

The following towns make up the Tarakiri clan: Agbere, Eḃeḃẹbiri, Tọrụ-Orua, Bulou-Orua, Angalabiri, Ofoni, Oduofori, Adọbụ, Odurubu, Anyama, Oweikorogha, Egeibiri, Ozezebiri, Obololi, Ayamasa, Ịsampọ, and Egbemọ-Angalabiri. Tarakiri is a dialect of Ịzọn spoken in these communities.

The term nasality has been defined by various scholars. Among them is Childs (2000, p. 1), who used “nasality” to refer to both the feature [nasal] in segments and to nasalization processes. In Ịzọn, nasality (as a feature) differentiates nasal stops, e.g., /m, n, ɲ/ from voiced stops, e.g., /p, b, t, d, k, g, kp, gb/. Ịzọn also has vowel nasalization, which is the spread of nasality onto vowels from nasal segments in adjacent positions.

In Ịzọn, as in many West African languages, nasality plays a major role in the sound system and grammar.

Nasality in Ịzọn is realized both phonetically and phonologically on both consonants and vowels. However, in this paper, the author is looking at the phonological process of the nasalization of the morpheme-initial consonant in the realization of the Ịzọn immediate past tense marker (Williamson, 1991, pp. 149-150) which is the equivalent of the English present perfect tense, from a Tarakiri perspective.

According to Atóyèbí (1999):

Among the West Benue-Congo languages, only Òkọ and a few Southern Edoid dialects, Uvwie and Agbon (Urhobo) and the Delta Edo dialect, Epie (Williamson, 1973, p. 128), have a vowel system in which all the oral vowels have a corresponding nasalized counterpart. (p. 1)

This is not entirely true, as in Ịzọn also, all the oral vowels have corresponding nasalized counterparts.

### The Vowels of Ịzọn

**Oral vowels.** Ịzọn has nine phonemic oral vowels. There is vowel harmony of the eight non-low vowels. The low vowel /a/ is neutral to vowel harmony as it can co-occur with either set of vowels. The wide vowels and the narrow do not normally go together in a simple word (see Table 1).

|              |           |                      |
|--------------|-----------|----------------------|
| Oral vowels: | a e i o u | set of wide vowels   |
|              | ẹ ị ọ ụ   | set of narrow vowels |

Table 1

#### *The Oral Vowels of Ịzọn*

| No. | Phoneme  | Orthography | Example in Ịzọn | English gloss     |
|-----|----------|-------------|-----------------|-------------------|
| 1   | /a/      | a           | agurá           | “star”            |
| 2   | /e/      | e           | esé             | “trouble”         |
| 3   | /ɛ/      | ẹ           | arẹ             | “name”            |
| 4   | /i/      | i           | dírí            | “medicine”        |
| 5   | /ɪ/      | ị           | igíná           | “pepper”          |
| 6   | /o/      | o           | ogbóó           | “land” or “union” |
| 7   | /ɔ/; /ɔ/ | ọ           | lósí            | “head gear”       |
| 8   | /u/      | u           | buru            | “yam”             |
| 9   | /ʊ/      | ụ           | fụrụ            | “smell”           |

**Nasalized vowels.** Ịzọn has nine phonemic nasalized vowels. They are: /ã, ẽ, ẽ̃, ĩ, ĩ, õ, õ̃, ũ, ũ̃/ which are represented orthographically as: ã, ẽ, ẽ̃, ĩ, ĩ̃, õ, õ̃, ũ, ũ̃. When a vowel occurs in a nasal environment, the vowel becomes nasalized. When two vowels occur in a word before the final /n/, both are affected by the nasalization. Usually, in the orthography, nasalization is marked by writing the consonant “n” at the end of the syllable after the vowel as illustrated in Table 2.

Table 2

#### *Ịzọn Distinguishes Between Oral Vowels and Nasalized Vowels (Agbégha, Prezi, Tarilayefa, & Prezi, 2011, p. 3)*

| No. | Phoneme | Orthography | Example in Ịzọn | English gloss               |
|-----|---------|-------------|-----------------|-----------------------------|
| 1   | /ã/     | ã           | tãn<br>sãn      | “to gather”<br>“to urinate” |
| 2   | /ẽ/     | ẽ           | egẽn            | “visitor”                   |
| 3   | /ẽ̃/    | ẽ̃          | seẽn            | “shave”                     |
| 4   | /ĩ/     | ĩ           | sin             | “to vomit”                  |

(Table 2 continued)

| No. | Phoneme | Orthography | Example in Iẓon | English gloss  |
|-----|---------|-------------|-----------------|----------------|
| 5   | /ĩ/     | ĩ           | tĩn             | “tree”         |
| 6   | /õ/     | õ           | ondó            | “to last long” |
| 7   | /õ̃/    | õ̃          | kõn             | “to take”      |
| 8   | /ũ/     | ũ           | fũn             | “book”         |
| 9   | /ũ̃/    | ũ̃          | sũn             | “stretch”      |

### Nasalization

Nasalization is a secondary modification which involves the superimposition of a lowered velum, adding a nasal resonance to the production of an oral sound. When the soft palate or velum is lowered, it allows air to pass out through the nose thereby forming a nasal sound such as the nasal stops /m, n, ŋ/.

Vowels are characteristically oral as they are produced with a raised velum. However, vowels are nasalized if the soft palate is lowered to allow part of the airstream to escape through the nose. According to Ladefoged (1971, p. 33), nasalization of approximants, fricatives, and laterals occur only where one of the adjacent vowels is also nasalized, and there are allophonic variations, as vowels are nasalized to a greater or lesser extent in accordance with the nature of the adjacent consonants. Again, according to Ladefoged and Maddieson (1996, pp. 134, 268), contextual nasalization can lead to the addition of nasal vowel phonemes to a language.

Donwa-Ifode (1995, p. 43) also noted that vowels are usually nasalized when they occur in the environment of nasal consonants as in English [mæn] “man” and [hɛn] “hen”, and that in some African languages, nasalization is clearer when the vowel occurs after the nasal consonant and not before it.

In Iẓon, as in Akan and Edo, nasalization is distinctive, because it brings about a change in meaning as in Examples (1)-(6) in Table 3.

Table 3

*Table Showing That Nasalization Is Distinctive in Iẓon (Yul-Ifode, 1999, p. 147)*

| Iẓon   | Akan                                      | Edo                                   |
|--|---|---------------------------------------|
| Example (1) /sũ/ “fight”; /sũ̃/ “to stretch” | Example (2) /sa/ “cut”; /sã/ “tie”        | Example (3) /ti/ “be fat” /tĩ/ “fly”  |
| Example (4) /bɔu/ “soft”; /bɔũ̃/ “honey”     | Example (5) /se/ “say”; /sẽ/ “hang about” | Example (6) /su/ “lead”; /sũ/ “crawl” |

Emenanjo (1978), and B. M. Mbah and E. E. Mbah (2010) had also discussed the phenomenon of nasalization and assimilation in Igbo.

### The Present Perfect Tense in English

In English, the present perfect tense denotes action or state of being that is *completed* at the time of speaking or writing, or that is *continuing into the present*. The present perfect tense is formed by combining the auxiliary *have* or *has* with the past participle form of a main verb. Semmelmeier and Bolander (1981, pp. 149-150) (see Examples 7-8).

Example (7) I have studied in Port Harcourt for 10 years.

Example (8) I have taught two part-time classes since last year.

Ndimele (1996, pp. 84-85) said the present perfect tense is used to show that an action which took place in the past is still relevant in the present.

Christophersen and Sandved (1969) were of the view that “tense is a set of grammatical forms bearing some relation to the notional category of *time*” (p. 220). They only recognized two tenses in English, viz. the “present” (or “non-past”) and the “past”. To them, “whereas the past tense reports a past action without any reference to the present moment, *the perfect links up a past event with the present (time)*” (p. 220). It can either denote an event which began in the past and which has continued right up to the present moment, as in Example (9).

Example (9) They have studied in Port Harcourt for three years (and are still studying there).

Or it can represent the present state of affairs as the result of an action or actions that took place in the past, as in Example (10).

Example (10) John and his wife have moved to Uyo (and as a *result* they are no longer living here in Yenagoa).

Nkwocha’s (2008, p. 134) view is that the present perfect tense is used to state an action that began in the past up till the present and an action seen as completed in the present (see Example 11).

Example (11) Aliya has been sick since last week.

Eka (2004, p. 103) called the present perfect in which the effect of the past action or state is still felt in the present (e.g., has taken), the *past in present*.

Williamson (1991, pp. 149-150) observed that in Iẓon, the simple past is marked by zero in Bumọ, and by *-mị* in Kolokuma and other dialects, while the immediate past (in which the effect of the past action or state is still felt in the present) is marked by a suffix *-deị, dọu*, etc.

In Tarakiri, the simple past is marked by a suffix *-mị*, while the immediate past (in which the effect of the past action or state is still felt in the present) is marked by a suffix *-de* (see Examples 12-13).

Example (12) Eremá bode. “The woman has come”.

Example (13) Fiyai mị akúde. “The soup has become bitter”.

### Assimilation in Iẓon

Assimilation is a natural phonological process whereby sounds become more similar to each other in terms of some of the feature values. Assimilation processes involving both oral and nasal segments abound in Iẓon. For example in Iẓon, the front vowel, /i/ assimilates to the backness of /gh/ in the environment before a back consonant. In phonological terms, the high front vowel, /i/ rewrites as the high back vowel, /u/ in the environment before a high back consonant /gh/ (see Examples 14-15).

Example (14) ebi “good” ebugha “not good”. /i/ rewrites as /u/ in “ebugha” before a high back consonant /gh/.

Example (15) mu “go” mugha “did not go”. Here, /u/ in *mu* is a back vowel and does not assimilate.

Example (16) E aka soro gha (fa)? (DS 1) Yé áká sọró ghá (fá)? (DS 2)

Y’áká sọró ghá (fá)? (SS) Won’t you wash (brush) your teeth?

Example (17) E akị gha (fa)? (DS 1) Yé ákí ghá (fá)? (DS 2)

Y’ákí ghá (fá)? (SS) Won’t you take (it)?

Example (18) E obori ba gha (fa)? (DS 1) Yé óbórí bá ghá (fá)? (DS 2)

Y’óbórí bá ghá (fá)? (SS) Won’t I slaughter a goat?

In the case of the phonological process in Iẓon of the replacement of an oral stop by a nasal stop after a syllable consisting of a nasal consonant or a nasalized vowel, the preceding nasal consonant or nasalized vowel is

the *conditioning sound*, while the syllable-initial consonant in the syllable that follows which changes to become a nasal is the *assimilated sound* (see Examples 16-18).

In terms of direction of assimilation, this assimilation is progressive because the assimilated sound occurs after the conditioning sound. Formalized, the sequence is CA where “C” stands for the *conditioning sound* while “A” stands for the *assimilated sound*.

In terms of contiguity, sometimes, the *conditioning* segment and the *assimilated* segment occur next to each other (see Examples 24, 25, 26, 27, 30, 34, 34, 37, and 39), i.e., they are not separated by any other segment, while in other instances they are non-contiguous (i.e., separated by some other segment) and the assimilation has to work across intervening segments and syllable boundaries.

In terms of extent of assimilation, here, the assimilation may be complete as when the assimilated sound takes over all the values of the features of the *conditioning* segment, but at other times the assimilation may be partial because the assimilated sound takes over only one (e.g., the place of articulation) or some, but not all the values of the features of the *conditioning* segment.

Just as vowels can be nasalized, consonants can also be nasalized. All the cases in this phonological process of the replacement of an oral stop /d/ by a nasal stop /n/ after a syllable consisting of a nasal consonant or a nasalized vowel, are those of *consonant assimilation*.

Many homorganic nasals are found in West African languages. Some examples in Iẓon include (see Examples 19-23):

|                   |                 |
|-------------------|-----------------|
| Example (19) ombú | “navel”         |
| Example (20) angó | “body/self”     |
| Example (21) undú | “life”          |
| Example (22) amba | “intestines”    |
| Example (23) anda | “wrestle”, etc. |

In Iẓon, /d/ and /n/ are both alveolar stops. /d/ is an oral voiced alveolar plosive while /n/ is an (voiced) alveolar nasal. The two consonants (/d/ and /n/) are homorganic in Iẓon because they are made at the same place of articulation and with the same articulators. The present perfect tense is represented by the suffix, -dẹ in the Tarakiri dialect of Iẓon. This -dẹ changes to -nẹ after a main verb which ends with a syllable that consists of a nasal consonant or a nasalized vowel. That is, in phonological terms, /d/ rewrites as /n/ in the environment after a syllable consisting of a nasal consonant or a nasalized vowel, i.e., [+ voice + alveolar + plosive] → [+ alveolar + nasal] after [+ nasal].

A list of the verbs in Iẓon (with their translations in English) in which this nasal assimilation occurs are as follows (see Examples 24-39):

|                     |          |  |
|---------------------|----------|--|
| Example (24) afĩn   | afĩnnẹ   | “has or have swept”                    |
| Example (25) bاین   | bایننẹ   | “has run/fled”                         |
| Example (26) dan    | dannẹ    | “has stepped on”                       |
| Example (27) efĩn   | efĩnnẹ   | “has flown”                            |
| Example (28) famó   | famónnẹ  | “has lost”                             |
| Example (29) ganrĩn | ganrĩnnẹ | “has become expensive” (phrasal verb?) |
| Example (30) kán    | kánnẹ    | “has torn”                             |

|                     |          |  |
|---------------------|----------|--|
| Example (31) limó   | limónẹ   | “has rid/killed” or “has erased/deleted” |
| Example (32) mǐẹ    | mǐẹnẹ    | “has done/made”                          |
| Example (33) na     | nanẹ     | “has heard”                              |
| Example (34) owéín  | owéínnẹ  | “has bitten”                             |
| Example (35) pamó   | pamónẹ   | “has befallen”                           |
| Example (36) sáán   | sáánnẹ   | “has ground”                             |
| Example (37) tein   | teinnẹ   | “has shot”                               |
| Example (38) wáǐmó  | wáǐmónẹ  | “has returned” (something)               |
| Example (39) yanrín | yanrínnẹ | “has shaken”                             |

The following are examples of short sentences in which this nasal assimilation of Ịzọn verbs occurs (see Examples 40-45):

|  |            |                     |
|--|------------|---------------------|
| Example (40) O munẹ.<br>He go has<br>He has gone.                                    | instead of | O mudẹ.             |
| Example (41) E sáánnẹ.<br>I urinated have.<br>I have urinated.                       | instead of | E sáándẹ.           |
| Example (42) A báínnẹ.<br>She run has<br>She has run.                                | instead of | A báíndẹ.           |
| Example (43) E sinnẹ.<br>I vomitted have<br>I have vomitted.                         | instead of | E sindẹ.            |
| Example (44) O Yenagoa eyerin-nẹ<br>He Yenagoa lived has<br>He has lived in Yenagoa. | instead of | O Yenagoa eyerin-dẹ |
| Example (45) Egberi binnẹ.<br>Stories many have become<br>Stories have become many.  | instead of | Egberi bindẹ.       |

In all the above examples, the initial consonant /d-/ of the present perfect tense marker [-de] after the main verb becomes a nasal /n-/.

It is worthy of note here that even borrowed English words obey this nasal assimilation rule as exemplified by the following examples (see Examples 46-47):

|                     |          |               |
|---------------------|----------|---------------|
| Example (46) bígíní | bígínínẹ | “has begun”   |
| Example (47) sítatí | sítátídẹ | “has started” |

The verbs “begin” and “start” are represented by “koro” which is both a main verb “fall” and an auxiliary verb in Ịzọn.

The verb “bring” represented by “kọn bo” which means “take + come” consists of two main verbs in Ịzọn and as such is not affected by this nasal assimilation rule as the syllable “bo” does not contain a nasal.

The nasal assimilation rule concerning the present perfect tense suffix *-de* is neutralized in Ịzọn in the following verbs (see Examples 48-63):

|                      |            |                                      |
|----------------------|------------|--------------------------------------|
| Example (48) arẹ     | arẹ́dẹ     | “has or have seen/beheld/found”      |
| Example (49) bá      | bá́dẹ      | “has killed/slain/(also) smitten”    |
| Example (50) dáwáí   | dáwáí́dẹ   | “has dreamt”                         |
| Example (51) ekpáń   | ekpáń́dẹ   | “has dried”                          |
| Example (52) fa      | fádẹ      | “has finished”                       |
| Example (53) gbá     | gbá́dẹ     | “has said/told”                      |
| Example (54) káí     | káí́dẹ     | “has shut”                           |
| Example (55) máálá   | máálá́dẹ   | “has wrapped”                        |
| Example (56) obéí    | obéí́dẹ    | “has bent (down)”                    |
| Example (57) páá     | páá́dẹ     | “has gone out”                       |
| Example (58) sẹ́     | sẹ́́dẹ     | “has danced”                         |
| Example (59) tángbei | tángbeídẹ | “has lost”                           |
| Example (60) vùró    | vùró́dẹ    | “has beaten”                         |
| Example (61) wásáí   | wásáí́dẹ   | “has spread/dismissed”, e.g., market |
| Example (62) yẹ́     | yẹ́́dẹ     | “has sold”                           |
| Example (63) zi      | zídẹ      | “has given birth”                    |

Below are examples of short sentences in which the nasal assimilation of Ịzọn verbs under discussion does not occur, as both verbs *yọu* and *bó* end in oral vowels (see Examples 64-65):

Example (64) Ó yọ́ú́dẹ

He travel has

He has travelled.

O yọ́dẹ remains the same. It does not change. We also say:

Example (65) Ó bó́dẹ

He come has

He has come.

In this case, the initial consonant (d-) of the present perfect tense marker (-de) after the main verb does not become a nasal (n-) after the main verb.

### Summary

All the cases in this phonological process of the replacement of an oral stop by a nasal stop /n/ after a syllable consisting of a nasal consonant or a nasalized vowel are those of *consonant assimilation* involving the assimilation of one consonant /d/ to another /n/, in the formation of the present perfect in Ịzọn.

In many verbs, whose present perfect tenses are represented by *-de* in the Tarakiri dialect of Ịzọn, the [-dẹ] is changed to [-nẹ] after the main verb. In phonological terms, /d/ rewrites as /n/ in the environment after a syllable consisting of a nasal consonant or a nasalized vowel, i.e., [+ voice + alveolar + plosive] → [+ alveolar + nasal] after [+ nasal]. This paper looks at, describes, and examines this phonological process/phenomenon of the replacement of an oral stop by a nasal stop after a syllable consisting of a nasal consonant or a nasalized vowel.

## Conclusions

Nasals with assimilatory influence on neighbouring segments nasalize the vowel, leading to the presence of significantly nasalized vowels which contrast with their oral counterparts in Iẓon.

Nasal assimilation in Iẓon may be contiguous when the assimilating (i.e., conditioning) and assimilated segment occur side by side, e.g., *baĩnnẹ*, or non-contiguous when the assimilating and assimilated segments are separated by some other segment(s), e.g., *mudẹ* → *mune*.

Nasal assimilation in Iẓon may also be complete when the assimilated sound takes over all the features of the assimilating (i.e., conditioning) nasal as in *baĩnnẹ*, or partial when the assimilated sound takes over some but not all the values of the features of the assimilating nasal.

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