

assimilation, is given in the following Wikipedia entry:

(2)

Monongahela River

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For other uses, see [Monongahela \(disambiguation\)](#).

The **Monongahela River** (/mə.nɒŋɡəˈhiːlə/^[10]) — often referred to locally as **the Mon** /ˈmɒn/ — is a 130-mile-long (210 km)^[6] river on the Allegheny Plateau in north-central

Notice that, according to this transcription, the final <n> of the second syllable corresponds to an alveolar [n], rather than a velar [ŋ], and so in this case the spelling <ng> represents a **heterorganic** cluster (i.e. a cluster **without** nasal place assimilation). [Wells's LPD³](#) does not record the variant [mə.nɒŋɡəˈhi:lə], but this turns out to be an oversight on Wells's part. The Wikipedia transcription is backed by the authority of two reliable American sources: not only relatively old [Kenyon & Knott \(1949\)](#), but also relatively recent [Merriam-Webster \(2009\)](#).

In order to understand why the grammaticality of unassimilated [mə.nɒŋɡəˈhi:lə] corroborates our assumption of rightward Chomsky-adjunction of pretonic stray syllables, we first need to work out the precise conditions under which nasal place assimilation applies obligatorily in English. In this respect, the conservative American dialect described in [Kenyon & Knott \(1949\)](#) exhibits a very clear stress-conditioned pattern:

(3)

Nasal place assimilation in Kenyon & Knott (1949)

- a. The second syllable is unstressed: obligatory assimilation

<i>cóngress</i>	[ŋ]
<i>cónquer</i>	[ŋ]
<i>cóngregàte</i>	[ŋ]
<i>còngregátional</i>	[ŋ]

- b. The second syllable bears secondary stress: optional assimilation

<i>cóncrète_N</i>	[n], much less frequently [ŋ]
<i>cónquèst</i>	[n], also [ŋ]
<i>íncrèase_N</i>	[n], also [ŋ]

- c. The second syllable bears primary stress: no assimilation

<i>concrète_V</i> ('solidify')	[n]
<i>congrèssional</i>	[n]
<i>incrèase_V</i>	[n]

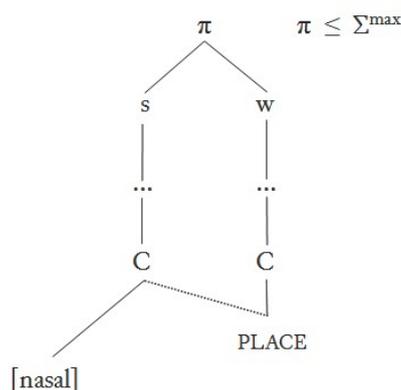
In this dialect, nasal place assimilation is obligatory only when the nasal and the immediately following consonant belong to the same foot, as in (3,a): this is exactly in line with [Kiparsky's \(1979: 439-440\)](#) analysis. Assimilation is merely optional in (3,b) because, in these words, the target nasal and the following consonant are in different feet: e.g. [_ɹ cón][_ɹ quèst]. Admittedly, if we assume that the first syllable of *c[ə]ngrèssional* is adjoined rightwards to a superfoot, then there will be a foot-projection containing both the target nasal

and the following consonant; but in this case the prominence relationship (weak-strong) goes the wrong way. In this light, the precise environment for obligatory nasal place assimilation in conservative dialects like that of [Kenyon & Knott \(1949\)](#) should be represented as in (4). In this diagram, $\pi \leq \Sigma^{\max}$ means 'a prosodic category no higher than the highest foot-projection', Σ^{\max} being standard notation for 'maximal foot-projection'.

(4)

Obligatory nasal place assimilation

Narrow environment
(conservative dialects)



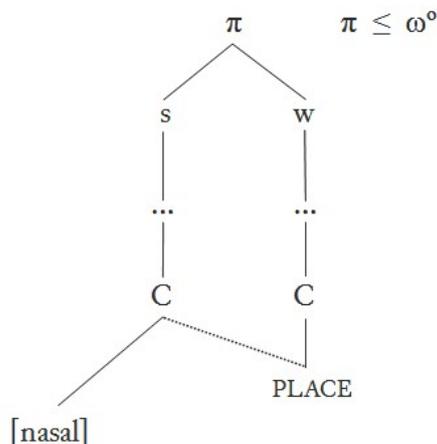
To be on the safe side, however, we should also take account of the fact that [Wells \(2008\)](#) reports assimilation in more cases than [Kenyon & Knott \(1949\)](#). In bipedal words like *cóncòrd*, *Cóngrève*, *cónquèst*, for example, Wells gives unassimilated [ŋ] in the model US pronunciation, but assimilated [ŋ] in the model British pronunciation. Thus, there is a possibility that obligatory nasal place assimilation may be undergoing **rule generalization** in some innovative dialects and that, as a result, it has come to apply in a slightly broader set of environments in those dialects ([Bermúdez-Otero 2014: 22-24](#)). Diagram (5) below provides a formal statement of a possible rule causing obligatory nasal place assimilation not only in *cónquer* but also in *Cóngrève* and *cónquèst*. The similarity with [the environment of prefortis clipping](#) should be immediately apparent. It should also be clear that the diachronic process of rule generalization whereby (4) is replaced by (5) involves the rule becoming bound by a higher unit in the prosodic hierarchy: $\pi \leq \Sigma^{\max}$ refers to the foot; $\pi \leq \omega^0$ refers to the prosodic word.

[continues]

(5)

Obligatory nasal place assimilation

Possible broad environment
(innovative dialects?)

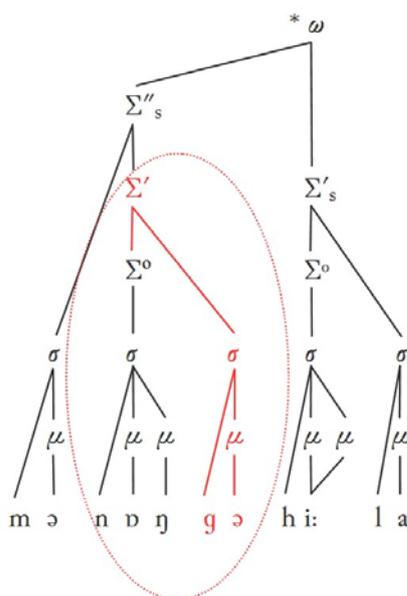


Having analysed the conditions under which nasal place assimilation is obligatory in English dialects, we are now ready to prove that the hypothesis of rightward adjunction of pretonic stray syllables correctly predicts that nasal place assimilation will **not** be obligatory in *Monòngahéla*.

Let us begin by finding out what would happen if, contrary to fact, pretonic stray syllables adjoined to the left. In that case, the prosodic representation of *Monòngahéla* would be as follows:

(6)

Incorrect leftward Chomsky-adjunction in Monòngahéla



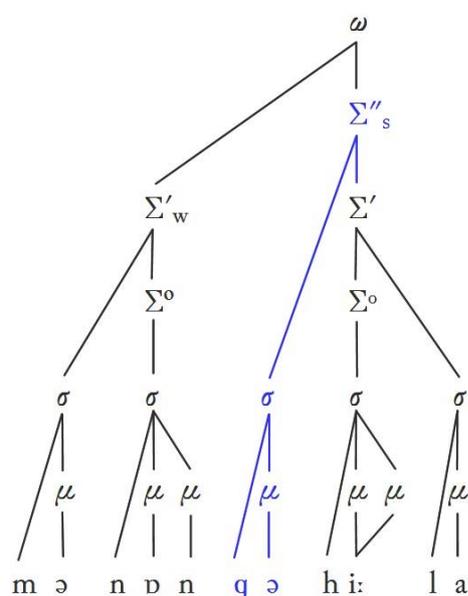
It becomes immediately apparent that this prosodic representation incorrectly predicts that *Monòngahéla* will undergo obligatory nasal place assimilation. This will be the case both if the dialect has a conservative assimilation rule, as in (4) above, and if the dialect has an innovative assimilation rule, as in (5)

above. Structure (6) makes this false prediction because it places the second and third syllables of *Monòngahéla* in the same prosodic relationship to each other as the two syllables of *cónquer* in (3,a): both are dominated by a left-strong foot-projection, highlighted by the dotted red ellipse in (6). Thus, adjoining pretonic stray syllables leftwards makes incorrect predictions not only about /t/-flapping, but also about nasal place assimilation.

It remains only to verify that adjoining pretonic stray syllables rightwards does generate the correct results for *Monòngahéla*, crucially predicting that nasal place assimilation will be merely optional, not obligatory. Under the hypothesis of rightward adjunction, the prosodic representation of *Monòngahéla* is as shown in (7) below. (For an explanation of the location of secondary stress, see [this document](#).)

(7)

Chomsky-adjunction in *Monòngahéla*



In this structure, the cluster /ng/ does **not** fulfil the requirements for obligatory nasal place assimilation, either in its conservative version (4) or in its advanced version (5). Take first the conservative version of obligatory nasal place assimilation in (4): it is clear that, in (7), the cluster /ng/ does not meet the structural description of rule (4) simply because the nasal and the following consonant belong to different feet. Now take the advanced version of obligatory nasal place assimilation in (5). The cluster /ng/ does not meet the conditions for rule (5) either: the lowest prosodic node that dominates both the nasal /n/ and the following /g/ is ω , but /n/ is dominated by the **weak** daughter of ω , i.e. Σ'_w , whereas /g/ is dominated by the strong daughter of ω , i.e. Σ''_s . Therefore, the representation in (7) correctly predicts that nasal place assimilation is not obligatory in *Monòngahéla*. More generally, the adjunction of pretonic stray syllables must be rightwards to the strong foot, and only rightwards to the strong foot.

Quod erat demonstrandum.

