

Areal and Phonotactic Distribution of ŋ¹

Gregory D. S. Anderson
MPI-EVA/Leipzig

0 Introduction

Of all the sounds commonly found in the world's languages, there are few, if any, that have a more areally or phonotactically definable distribution than the velar nasal. In this brief report I present a discussion of the areal and phonotactic distribution of this common sound based on a database of 512 languages representing the full spectrum of genetic diversity from across the globe. The presentation begins with a discussion of the areal distribution of the presence vs. absence of contrastive *ŋ*. It then moves to a discussion within languages possessing contrastive *ŋ* of its phonotactic distribution from an areal perspective.

1 Areal Distribution of contrastive *ŋ*

The areal distribution of the presence vs. absence of phonemic *ŋ* among the languages of the world is indeed striking. For example, contrastive *ŋ* is rare in European languages but is universal in Australian Aboriginal languages. Thus, there is a largely definable macro-areal distribution of both languages possessing contrastive *ŋ* and those lacking it.

Assigning a given language to the group that possesses contrastive *ŋ* or to the one that does not is not as straightforward as identifying *ŋ* within the sound inventory of the language, i.e. *ŋ* is often phonetically present but phonologically predictable or non-contrastive. Various issues complicate the determination of whether *ŋ* is phonemic or contrastive in a given language. For example, the sound occurs as a conditioned variant of the extremely common nasal sound *n* before velars, juncture, etc. Also, especially in those speech varieties where it may occur in initial position, phonetic *ŋ* may be realized as the initial component of pre-nasalized stops, i.e. ^h*g*- ^h*k*-. Further, some languages, e.g. Swahili, actually contrast [*ŋ*] and /*n-g*/ (~ [*ŋ-g*]) in word-initial position (1), albeit the former as an onset consonant and the latter a syllabic nasal.

(1) Swahili

ŋoa vs. *ngoɑ*
'root up' 'passion, lust'
Johnson and Madan (1939/1991:335)

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The world's languages that do not possess contrastive or phonemic **ŋ** are found across the globe, including such a genetically and geographically diverse array of languages as those in (2).

(2)

Abkhaz	Ainu	Apurina	Amele	Aymara
Brahui	Beja	Chimariko	Daga	Esselen
French	Gapapaiwa	Hausa	Hixkaryana	Hunzib
Imonda	Jakaltek	Karok	Khoekhoe	Lillooet
Maltese	Ngiti	Otomi	Paumarí	Quileute
Russian	Sentani	Slave	Soddo	Tillamook
Usan	Wari'	Yuchi	Zuni	

Obviously the languages in (2) constitute a varied group; however, some comments can be made about the languages that lack **ŋ**. First, it is relatively marked in indigenous languages of North, Central and South America, with certain notable exceptions (e.g. parts of California and the western US, north-central South America). It is rare in European languages, and not overly common in Papuan languages. On the other hand, **ŋ** is ubiquitous in Australian languages, is found in most Southeast Asian languages, it is very frequent in the Pacific languages and common in the languages occupying a band in north-central Sub-Saharan Africa stretching across the continent west to east. For a representative sample of these languages, see the list in (3).

(3)

Aka-Boji	giab	Bagirmi	Burmese	Chukchi	Dagaare
Diola	Fogny	Evenki	Fur	Gahrti	Halia
Indonesian	Jurchen		Khmu?	Lepcha	Lummi
Mapudungu	Nankina		Nunggubuyu	Oksapmin	Patep
Qryyz	Rama		Semelai	Tagalog	Ungarinjin
Vai	Washo		Xanty	Yamdena	Zoque

The distribution of **ŋ** in the Indo-Pacific region, Oceania, Australia and Southeast Asia, has resulted primarily from the historical spread of languages with contrastive **ŋ**. First and foremost this includes the widely scattered, numerous descendants of Proto-Austronesian, for which ***ŋ** is to be reconstructed. Similarly the velar nasal is probably to be reconstructed for ancestral languages of the Tai-Kadai, Hmong-Mien, and Austroasiatic language families of Southeast Asia, as well as Australian languages, regardless of whether these latter form a genetic unit or not: The ubiquity of **ŋ** in Australian languages suggests nothing short of the inclusion of ***ŋ** in the sound system of every identifiable proto-language.

2 Phonotactic/Areal Distribution of ŋ

À propos to the phonotactics of phonemic ŋ, one finds an even more striking areal distribution across the world's languages. For example, while phonemic ŋ is found in all of the ten language families and isolate groups of Siberia, it is found word-initially in only those languages spoken in northern and eastern Siberia, e.g. Nganasan, Kerek, Nivkh, Yukaghir, and Even (4).

(4) <u>Nganasan</u> <i>ŋukagə</i> 'many, a lot' Tereshchenko (1966b)	<u>Kerek</u> <i>ŋuyŋən</i> 'tail' Skorik (1986: 79, 85)	<u>Nivkh</u> <i>ŋamk</i> 'seven' Gruzdeva (1998: 24)
<u>Yukaghir</u> <i>ŋol-</i> 'be' Nikolaeva and Xelimskij (1997: 160)	<u>Even</u> <i>ŋɪɪ-</i> 'dog' Novikova (1997: 291)	

In certain other Siberian languages, ŋ in onset position is permitted, just not in the first syllable of a word, i.e. only in word-internal onset position.

(5) Yakut dative-locative after nasal-final stems

silimŋe
'in the glue, to the glue'
Korkina et al. (1982)

<u>Xanty</u> dual <i>xotŋɪn</i> <i>misŋɪn</i> '2 houses' '2 cows' Tereshkin (1966: 224)	<u>Sel'kup</u> <i>üŋŋɪntiŋ</i> 'wolverine' Kuznecova et al. (1980)	<u>Kott</u> [†] <i>alačakŋaŋ</i> 'went down the river' Verner (1990: 26)
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<u>Proto-Yupik</u> <u>Sireniki</u> [†] * <i>qurŋi</i> <i>qúrŋə-x</i> * <i>manŋi</i> <i>maní-x</i> Mudrak (1986: 235, 237)	<u>Chapline (CSY)</u> <i>qúŋŋi-q</i> <i>maní-k</i>	<u>Naukan</u> <i>quyŋi-q</i> <i>mánŋi-k</i>	<u>gloss</u> 'reindeer' 'egg'
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Naturally, there is also a third group of Siberian languages in which ŋ is never permitted in onset position (e.g. Xakas, Buryat).

In my database, I have information on the following positions: word-initial onset, word-final coda and medial position (coda or onset). A considerable subset of the languages with phonemic ŋ show no restriction on its appearance in the syllable/word. These include the following languages:

(6) Bagirmi

ɲaŋ(a)
'tooth'
Stevenson (1969: 13)

Chukchi

ɲɛɛkəkək *liŋliŋ*
'daughter' 'heart'
Volodin (1997a: 25)

Indonesian

ɲelu *menoloŋ*
'have a headache' 'help'
Echols and Schadily (1961: 230)

Kâte

ɲɔriŋ
'beaver rat'
Flierl and Strauss (1977: 242)

Lummi

ɲəsən *ʔéʔləŋ*
'louse' 'house'
Thompson/Thompson/Efrat (1974: 187)

Nankina

ɲam *ɬjuŋ*
'forehead' 'meat'
Spaulding & Spaulding (1994: 5, 245)

Nunggubuyu

ɲalgi *nuŋaŋaŋ*
'pandanus nut' 'fig'
Heath (1982: 125, 131)

Rama

ɲaəŋ
'bed'
Grinevald (n.d. : 40)

Washo

ɲauŋaŋ
'baby'
Kroeber (1907: 257)

Yamdena

ɲafele *paraŋ*
'pretty' 'bush knife'
Lamere & Mettler (1994: xx, 5)

However, far from all languages with phonemic *ɲ* permit the sound such a distribution. Rather, a variety of restrictions are encountered.

One of the more common of such restrictions is that some of the world's languages permit *ɲ* only in syllable-final or coda-position, never in initial or onset position (7). These include such languages as Ket, Cambodian (Khmer), Burushaski, Ju/'hoan, Hmong Njua, Copainala Zoque, Mundari, Mandarin, Kuot, Jivaro, Koromfe and West Greenlandic Eskimo, among others.

(7) Burushaski

ariŋ
'my hand'
(own field notes)

Hmong Njua

tóŋ
'edible gourd'
Lyman (1979: 10)

West Greenlandic Eskimo

akiŋa
'answer me'
Vaxtin (1997: 98)

Khalkha

xaluuŋ
'hot'
Jaxtonova (1997: 109)

Lower Grand Valley Daniⁱ

saŋ
'bark container'
Bromley (1961: 37)

Mandarin Chinese

fáŋzi
'house'
Li & Thompson (1981: 89)

Cahuilla

hé-naŋ
'his tongue'
Bright (1965: 243)

Cambodianⁱⁱ

taŋ
'begin to'
Jacob (1968: 75)

Garó

boŋa
'5'
Burling (1961: 5)

Ket

deʔŋ²
'people'
Werner (1997)

<u>Mundari</u> ⁱⁱⁱ	<u>C. Sierra Miwok</u>	<u>Koromfe</u> ^{iv}	<u>Ju/'hoan (!Xu)</u>
<i>buluŋ</i>	<i>ʔi-ʃi-ŋ</i>	<i>boŋoi, pɪlaŋ</i>	<i>n!eŋ</i>
'salt'	demonstrative-GEN	'love' 'moon'	'eland'
Osada (1992: 26)	Hamp (1966: 240)	Rennison (1997: 390)	Snyman (1970: 35, 48)

<u>Mansi</u>	<u>Temiar</u>	<u>Awngi Agaw</u>	<u>Jivaro</u>
<i>naŋ</i>	<i>takuŋ</i>	<i>əŋəŋ</i>	<i>aišmaŋ</i>
'you'	'lake'	'to bite'	'man, male'
Kuzakova (1994: 78)	Carey (1961: 116)	Hetzron (1997: 482)	Turner (1958: 91-2)

<u>Copainala Zoque</u> ^v	<u>Kuot</u>	<u>Maithili</u> ^{vi}	<u>Una</u>
<i>jujuče'ŋ</i>	<i>iŋit-ieŋ</i>	<i>aŋ</i>	<i>buknuŋ</i>
'cuánto'	'have aches'	'body'	'let them both sit down'
Harrison et al. (1981: 9)	Chung & Chung (1996: 3)	Yadav (1996: 23)	(Louwerse 1988)

Still other languages do not permit this sound in coda-position at all (8). However, in some, this is not a restriction on *ŋ* per se, but rather a restriction on coda consonants of any type, i.e. this set of languages allows only open syllables. These include Fijian, Gooniyandi, some Chinantec languages, Supyire, Önge, and Lahu, among others.

(8) <u>Fijian</u>	<u>Supyire</u>	<u>Bambara</u>	<u>Lahu</u>
<i>ŋonevuli</i>	<i>ŋɔɔ ɲáǵà</i>	<i>ŋɔni</i>	<i>ŋà ɲɔ-ɲɔ</i>
'student'	'sleep' 'scratch'	'thorn'	'I' 'almost, nearly'
Dixon (1988: 22)	Carlson (1994: 26)	Kastenholz (1998: 10)	Matisoff (1982: 49, 652)

<u>Kunama</u>	<u>Önge</u>	<u>Gĩkũyũ</u>	<u>Yukulta</u>	<u>Lealao Chinantec</u>
<i>ŋèrə̀</i>	<i>ŋi</i>	<i>ŋo^mbe</i>	<i>ŋita</i>	<i>ŋi^H</i>
'a lie' (rare)	'you'	'cow'	'wood'	'his/her face'
Bender (1996)	Dasgupta & Sharma (1982: 6)	Mugane (1997: 115)	Keen (1983: 199)	Rupp (1989: 1)

There are however a range of languages which lack word-final *-ŋ* but do allow consonants in coda position; these include the N. Samoyed languages, most Andamanese varieties (except Önge), and various Australian and Native American languages as well. Some of these have featural restrictions on coda consonants (e.g. only coronals are allowed), but, some, like Aka-Kede (Andamanese) or Wargamay (Australian) show no such restriction, but nevertheless disallow *ŋ* in coda position (at least word-finally).

(9) Languages lacking final *-ŋ* but with C-final words

<u>Nenets</u>	<u>Kraho</u>	<u>Watjarri</u>
<i>ŋobkad</i>	<i>ŋapar</i>	<i>ŋaŋŋaŋ</i>
'often'	'your nephew'	'lower jaw, chin'
Décsy (1966: 51)	Shell (1952: 116)	Douglas (1981: 252)

<u>Wargamay</u>	<u>Margany</u>	<u>Aka-Kede</u>
<i>ɲayginan</i>	<i>ɲaɲbaɖ</i>	<i>ɲilɪp</i>
'mother's father'	'sweat'	'a cold'
Dixon (1981: 124)	Breen (1981: 284)	Portman (1887/1992)

There are even languages that have phonemic **ɲ** but allow it in neither word-initial onset position nor in word-final coda position. In other words, **ɲ** is only found medially in these languages. This distribution is actually not overly common, but it is found in a few unrelated languages in the American Southwest. In certain instances, **ɲ** appears in clear coda position, and thus is just a restriction on word-final **-ɲ** (Atsugewi, Olo), or in other words, coda position at word edge. In other languages (Darfur, Witoto), the present level of understanding of the data do not permit a clear interpretation, and **ɲ** may in fact appear in onset position and thus the restriction actually applies to onset position at word edge, i.e. in word-initial syllables.

(11) Languages with only medial **-ɲ-**

<u>Darfur/Midob Nubian</u>	<u>S. Paiute</u>	<u>Witoto</u> ^{vii}
<i>èɲèdì</i>	<i>yɪɲɪ</i>	<i>hiráɲo</i>
'herder, shepherd'	'porcupine'	'bee'
Werner (1993: 87)	Davis (1966: 138-9)	Aschmann (1993: 72)
<u>Atsugewi</u> ^{viii}	<u>Olo (PNG)</u> ^{ix}	
<i>iwiɲkay</i>	<i>winge</i> vs. <i>wiɲge</i>	
'little'	'younger brother' 'all men'	
Olmsted (1958: 218)	McGregor & McGregor (1982)	

To summarize, restrictions on the phonotactic distribution of **ɲ** are found in numerous languages across the world. One such restriction is a prohibition on the occurrence of **ɲ** in onset-position, the latter sometimes restricted to word-initial position alone. In other words, word-medially, **ɲ** in onset is tolerated. The range of causes of this distribution is at present unknown and requires further research. In any event, it does not appear to be as simple as the explanation usually put forward for its lack in onset position in such languages as English: viz. as a re-phonemicized allophone of original ***n** (or some other nasal) in a pre-velar position, with the added fact that ***#N+K** clusters were lacking word-initially. This is indeed a plausible explanation for its lack in onset position in English. However, the fact that there are languages with a contrast between **ɲ** and **N + K** word-initially, and ones that contrast **ɲ** and ^v*g*/^v*k*, as well as the fact that there are numerous languages for which there is no reason to believe that the sound is anything but primary or original, not secondary or derived historically speaking, this explanation for

the lack of **ŋ*- word-initially in English is implausible as a default explanation cross-linguistically speaking.

Similarly, there are languages with restrictions on *ŋ* not in onset position, but rather coda position. This can be a restriction on either all codas or again just those in word-final position. The causes of the lack of *ŋ* in coda position are likewise varied. In some languages, this is a simple restriction on having coda consonants of any type, so *ŋ* is merely subsumed under this general no-coda constraint. In other languages, the lack of *ŋ* in coda position is due to a general lack of non-coronal consonants in this position. In others, however, e.g. Aka-Kede or Wargamay, there is no such general restriction (for example Wargmay shows *-m* codas), and the lack of *ŋ* in coda position here is due to a specific constraint on this particular sound itself.

One of the striking consequences of the preceding discussion is that there is typological evidence, based on the phonotactic distribution of the velar nasal across the languages of the world, that word-edge or word-peripheral and word-medial or word-internal syllable phonotactics are to be treated separately, and in particular, that word-edge coda and onset positions seem to be more restricted than corresponding coda and onset positions in non-edge positions. Elucidation of these complex issues and addressing the theoretical consequences of these empirically sound typological observations is beyond the scope of the present study, and must await the insights of future research in theoretical phonology.

3 Differences in closely related languages

Among the most interesting aspects of the distribution of *ŋ* in the world's languages is the sound's differential status in closely related languages. Thus, *ŋ* does not always exhibit diachronic stability, but rather may arise or be lost, be shifted to new phonotactic positions or be restricted to fewer.

One example of different phonotactics in closely related languages is the presence of word-initial *ŋ*- in Dolgan a Turkic language of north-central Siberia, and the lack of this feature in the closely related Yakut [Saxa], e.g. Dolgan *ŋassa* 'pipe' (Ubrjatova 1985: 41).

In the easternmost variants of the Turkish type of Oghuz Turkic we find the following situation. In Gagauz there is no *-ŋ*- as in standard Turkish, but in Crimean Turkish, phonemic, non-initial *ŋ* is found, e.g. Crimean Turkish *oŋa* 'to him/her' (Izidonova 1997: 306) vs. Gagauz *ona* (Pokrovskaja 1997).

In the Australian language Ngiyambaa final **-ŋ* has been lost, while in the closely related Wiradjuri, final *-ŋ* is preserved: Ngiyambaa *gali* vs. Wiradjuri *galiŋ* 'water' (Donaldson 1980: 32).

In Larike, contrastive *ŋ* is found while its sister language Alune has lost *ŋ* altogether, e.g. Alune **ŋ* (Makaruku et al. 1997) vs. Larike *ruluŋ* 'help' (Laidig & Laidig 1991:4).

In Nankina, *ŋ* is found in all positions, including word-initially, *ŋam* 'forehead' (Spaulding & Spaulding 1994: 245), while its close sister language Karo/Rawa shows *-ŋ*- medially in a very small number of words only: *momuŋo* 'round' (Toland & Toland 1991: 9), otherwise it has lost the sound.

Note that *ŋ*- is nearly universal in Australia. However, various Uradhi dialects are an exception. *ŋ*- virtually only occurs medially in almost all dialects (no final consonants are allowed); *ŋ*- is rare but attested in the Atampaya dialect *ŋampu* 'tooth' but *ŋ*- lacking in Angkamuthi and Yadhaykemu dialects (Crowley 1983: 389). This lack of *ŋ*- may be part of the process of initial drop that has operated on various languages of Australia, thus those types of languages are (sometimes) an exception to the otherwise true observation about *ŋ*- in Australia.²

To be sure, the range of explanations for these differences among closely related languages is as varied as the language groups themselves. I will give only two here briefly as a demonstration of this fact.

Dolgan Turkic has both a significant loan layer and substrate influence from Tungusic Evenki, as well as loans from the adjacent Samoyedic Nganasan, both of which make extensive use of word-initial *ŋ*-. In addition, there is a process of distant nasal assimilation of stops to homorganic nasals operative sporadically throughout the lexicon of numerous central Siberian languages (Anderson 2003). Outside of Dolgan, this generally does not alter *g* or *k* to *ŋ*, but in Dolgan it appears that it has. In fact, the form cited above, *ŋassa* 'pipe', derives from a form **kanza*, attested as such in other Siberian languages. In the development of the attested Dolgan form from the proto-type, there was first a process of distant nasal assimilation of **k* to *ŋ* and then a subsequent assimilation of the cluster **nz* (possibly via **ms*) to *ss* (cf. the Yakut cognate *xamsa*). In this instance, one of the two closely related languages (Dolgan) shows the results of a complex interaction between the interaction of external features of borrowing, substrate interference and 'regular' internal processes of historical phonological change, while the other (Yakut/Sakha) shows no such developments.

Ngiyambaa and Wiradjuri present a different kind of historical situation. In these closely related Australian languages, a simple process of general coda-deletion has been operative in one (Ngiyambaa) of two closely related languages but not the other (Wiradjuri), giving rise to the present differences.

A curious paradox arises from the preceding discussion. Namely, while on the macro-areal level, the trends regarding *ŋ* are relatively clear and pronounced, on the micro-level, there is actually significant variation observed. Unfortunately, resolving the historical intricacies of not only the micro-level variation and change, which deals with relatively shallow time depths and often (but not always) identifiable or recoverable diachronic phonological processes, but also of the macro-level data which rather suggest long-term or ancient processes of accommodation, borrowing, etc. that belong to the

² Someone at the OCP conference mentioned this to me but I am afraid I do not remember who it was. Mea Culpa. So this is (someone knowledgeable and kind, personal communication).

purview of a very different type of detailed comparative-historical analysis, is clearly beyond the scope of the present work and must await future research.

4 Summary

In summary, *ŋ* exhibits a discernible areal and phonotactic distribution in the world's languages. There are restrictions on *ŋ* in coda and/or onset in a range of languages. These restrictions may occur on word-initial or word-final position only, not word-internal syllables, or on word-internal syllables as well. Thus, one finds contrastive but no word-initial *ŋ*- in a wide band across Eurasia, replaced by a large band of languages that allow initial *ŋ*- in Southeast Asia and Oceania/Australasia: virtually all Australian and Southeast Asian languages have both phonemic and word-initial *ŋ*- while none of the handful of the European and Western Asian languages with phonemic *ŋ* permits this sound in word-initial position, nor do the languages of western and central Siberia, where phonemic *ŋ* is nearly universal, but in northern, eastern, and southeastern Siberia, initial *ŋ* is common. In addition, there is another band of languages stretching across central Africa from west to east where word-initial *ŋ*- is allowed. Certain Papuan languages (e.g. Kâte or Eipo) possess *ŋ*-as well as a certain number of New World languages (Lummi, Sochiapan Chinantec, Gavião) but overall, *ŋ*- is not that common in these parts of the world. The majority of the Native American languages of California with phonemic *ŋ* do not permit the sound word-initially, while elsewhere (Africa, South America, New Guinea), phonemic but non-initial *ŋ* occurs only sporadically. Finally, on occasion one finds languages that allow only medial *-ŋ*-, i.e. it appears neither word-initially nor word-finally (Atsuwegi, Darfur Midob).

Theoretically speaking, the preceding discussion supports claims that word edge or word-peripheral and word-internal phonology must be treated separately; in particular, there are greater phonotactic restrictions on word-initial onsets and word-final codas than on word-medial codas and onsets. In addition, while the macro-areal distribution and phonotactics of contrastive *ŋ* is relatively straightforward, there is actually considerable variation on the micro-areal level.

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Languages Cited

	†extinct
Abkhaz [NW Caucasian, Georgia, Russia]	Ainu† [isolate, Japan, Russia]
Aka-Bojigrab† [Andamanese, India]	Aka-Kede† [Andamanese, India]
Alune [Austronesian, Indonesia]	Amele [Papuan (TNG), PNG]
Apurina [Arawakan, Brazil]	Atsugewi [Palaihninan, Hokan, USA]
Awngi Agaw [Afroasiatic, Eritrea]	Aymara [Quechaymaran, Peru, Bolivia]
Bagirmi [Nilo-Saharan, Chad]	Bambara [Niger-Congo, Mali]
Beja [Cushitic, Afroasiatic, Ethiopia]	Buryat [Mongolic Siberia]
Burmese [Tibeto-Burman, Myanmar]	Burushaski [isolate, Pakistan]
Brahui [Dravidian, Pakistan]	Cambodian (Khmer) [Austroasiatic, Cambodia]
Cahuilla [Uto-Aztecan, USA]	Chimariko† [isolate, Hokan USA]
Chaplino Yup'ik [Eskimo-Aleut, Siberia]	Crimean Turkish [Turkic, Russia]
Chukchi [Chukotko-Kamchatkan, Siberia]	Comaltepec [Otomanguean, Mexico]
Daga [Papuan (TNG), PNG]	Darfur/Midob Nubian [Nilo-Saharan, Sudan]
Dagaare [Niger-Congo, Ghana]	Dolgan [Turkic, Siberia]

Diola Fogy [Niger-Congo, Senegal]
 Esselen[†] [isolate (Hokan), USA]
 Fijian [Austronesian, Fiji]
 Fur [Nilo-Saharan, Sudan]
 Gahrti [Tibeto-Burman, Nepal]
 Gapapaiwa [Austronesian, PNG]
 Gavião [Tupian, Brazil]
 Gikūyū [Bantu, Kenya]
 Halia [Austronesian, PNG]
 Hunzib [NE Caucasian, Russia]
 Indonesian [Austronesian, Indonesia]
 Jakaltek [Mayan, Guatemala]
 Ju/'hoan (!Xu) [Khoisan, SW Africa]
 Karok [Hokan, USA]
 Kerek[†] [Chukotko-Kamchatkan, Siberia]
 Khalkha [Mongolic, Mongolia]
 Khoekhoe [Khoisan, SW Africa]
 Kott[†] [Yeniseic, Siberia]
 Kunama [Nilo-Saharan, Ethiopia]
 Larike [Austronesian, Indonesia]
 Lealao Chinantec [Otomanguean, Mexico]
 Lillooet [Interior Salish, Canada]
 Maithili [Indo-European, India]
 Mandarin Chinese [Sino-Tibetan, China]
 Mansi [Ob-Ugric, Siberia]
 Margany [Australian, Australia]
 Nankina [Papuan (TNG), PNG]
 Nenets [Samoyedic, Siberia]
 Ngiti [Nilo-Saharan, Zaire (DRC)]
 Nivkh [isolate, Siberia]
 Oksapmin [Papuan (TNG), PNG]
 Önge [Andamanese, India]
 Patep [Austronesian, PNG]
 Quileute [Chemakuan, USA]
 Rama [Chibchan, Nicaragua]
 Sel'kup [Samoyedic, Siberia]
 Sentani [Papuan (TNG), Indonesia]
 Sireniki[†] [Eskimo-Aleut, Siberia]
 Soddó [Afroasiatic, Ethiopia]
 Southern Paiute [Uto-Aztecan, USA]
 Swahili [Bantu, East Africa]
 Tagalog [Austronesian, Philippines]
 Tillamook[†] [Salish, USA]
 Uradhi [Australian, Australia]
 Wari' [Chapacuran, Brazil]
 Washo [Hokan, USA]
 Wargamay [Australian, Australia]
 Wiradjuri [Australian, Australia]
 Xakas [Turkic, Siberia]
 Yakut (Saxa) [Turkic, Siberia]
 Yuchi [isolate, USA]
 Yukulta [Australian, Australia]
 Zuñi [isolate, USA]

Even [Tungusic, Siberia]
 Evenki [Tungusic, Russia]
 French [Indo-European; France]
 Gagauz [Turkic, Moldova]
 Garo [Tibeto-Burman, India/Bangladesh]
 Hausa [Afroasiatic, Nigeria]
 German [Indo-European, Germany]
 Hmong Njua [Hmong-Mien (Miao-Yao), Laos, Thailand]
 Hixkaryana [Carib, Brazil]
 Imonda [Papuan (TNG), PNG]
 Jivaro [Jivaroan (Shuar), Peru]
 Karo/Rawa [Papuan (TNG), PNG]
 Jurchen[†] [Tungusic, China]
 Kâte [Papuan (TNG), PNG]
 Ket [Yeniseic, Siberia]
 Khmu? [Austroasiatic, Laos]
 Koromfe [Niger-Congo, Burkina Faso]
 Kraho [Macro-Gê, Brazil]
 Kuot [Papuan (E), New Ireland, PNG]
 Lahu [Tibeto-Burman, China, Thailand, Myanmar]
 Lepcha [Tibeto-Burman, Nepal, India, Bhutan]
 Lummi [Salish, Canada, USA]
 Lower Grand Valley Dani [Papuan (TNG), Indonesia]
 Maltese [Afroasiatic, Malta]
 Mapudungu [Araucanian, Chile]
 Mundari [Munda, India]
 Naukan [Eskimo-Aleut, Siberia]
 Nganasan [Samoyedic, Siberia]
 Ngiyambaa [Australian, Australia]
 Nunggubuyu [Australian, Australia]
 Olo [Papuan (Toricelli), PNG]
 Otomi [Otomanguean, Mexico]
 Paumarí [Arawa[ka]n, Brazil]
 Qyryyz [Turkic, Kyrgyzstan]
 Russian [Indo-European, Russia]
 Semelai [Austroasiatic, Malaysia]
 Sierra Miwok [Penutian, USA]
 Slave [Athabaskan, Canada]
 Sochiapan Chinantec [Otomanguean, Mexico]
 Supyire [Niger-Congo, Mali]
 Temiar [Austroasiatic, Malaysia]
 Ungarinjin [Australian, Australia]
 Usan [Papuan (TNG), PNG]
 Una [Papuan (TNG), Indonesia]
 Vai (Mande) [Niger-Congo, Sierra Leone/Liberia]
 Watjarri [Australian, Australia]
 West Greenlandic [Eskimo-Aleut, Greenland]
 Witoto [Witotoan, Colombia, Peru]
 Xanty [Ob-Ugric, Siberia]
 Yamdena [Austronesian, Indonesia]
 Yukaghir [isolate, Siberia]
 Zoque, Copainalá [Mixe-Zoquean, Mexico]

ⁱ According to Bromley (1961: 14-17) *The Phonology of Lower Grand Valley Dani: A comparative structural study of skewed phonemic patterns*. [s-Gravenhage: Martin Nijhoff], the following situation is true of Dani dialects/languages. Western Dani, Wodo Valley Dani, and Lower Bele and Lower Aikhe Dani all lack phonemic **ŋ*. However, Lower Grand Valley Dani, as well as Gorge Dani and Mid-Hablitoeri Dani all have phonemic *ŋ*, in Gorge Dani, this is found in word-initial position as well (no examples given). He notes that in LGVD, *ŋ* is always in free variation with *n* so its phonemic status is questionable.

ⁱⁱ According to Jacob (1968/1990: 25), in dialectal Cambodian one finds alternate forms of the type *kɔŋkæp ~ ŋkæp* (no gloss given), with apparent word-initial velar nasal (or a prenasalized stop).

ⁱⁱⁱ *ŋ* appears in medial position only in inflected (suffixed) forms of words ending in *-ŋ* in Mundari.

^{iv} Only syllabic nasals appear word-initially (*ŋ-go* 'not be/have', especially the second singular marker (Rennison 1997) *ŋ-harɪ* 'you touch').

^v Zoque of Francisco Leon: Only in nasal+stop clusters, e.g. Engel p. 334 *ŋgama* 'mi milpa'; also in Copainála Zoque *ŋga'e* 'muchaho' (hablando de él) (Harrison et al. 1981: 107).

^{vi} Yadav does not consider *ŋ* phonemic. In intervocalic position *-ŋ-* is found in some dialects alternating with *-^hg-*. *^hg-* found word-initially, patterning with other pre-nasalized stops. *-ŋ* alone word-finally, never *-^hg*.

^{vii} In Nĩpode and Mĩnica Witoto, *ŋ* occurs in a single common morpheme < **g* and alternates with *ñ*, which it has developed into completely in Murui Witoto (Aschmann 1993 : 11, 13). Its phonemic status in medial position is therefore marginal in Witoto.

^{viii} Apparently there is a contrast between *-nk-* and *-ŋk-* in Atsugewi medially, e.g. *issinĩwiŋka* 'Red Hill' vs. the form cited.

^{ix} Only contrasts word-medially before a velar stop (McGregor & McGregor 1982: 5). There are a large number of such minimal pairs as *inkif* 'go inside' *iŋkif* 'follow' in Olo.