

9. The Velar Nasal (ŋ)

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1. Defining the values

This chapter addresses the distribution of the sound **ŋ** (the velar nasal) in the languages of the world. A very large number of languages make use of phonemic **ŋ**, while many others lack this sound. However, few of the sounds commonly found among the phonemic inventories of the world's languages exhibit a more clearly definable distribution than that exhibited by **ŋ**. This distribution has two unrelated aspects. One is the striking areal distribution of the presence vs. absence of phonemic **ŋ** among the languages of the world. The other striking aspect of phonemic **ŋ** is its phonotactic distribution: in many languages possessing this sound, it may not appear in all positions in the word, but rather is restricted to initial, medial, or final position, or some combination thereof. In the case of restriction of **ŋ** to non-initial position, this, too, has a relatively pronounced areal skewing among the world's languages.

@	1. Velar nasal, also initially	146
@	2. Velar nasal, but not initially	88
@	3. No velar nasal	234
	total	468

Assigning a given language to the group that possesses contrastive **ŋ** or the group 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 or not **ŋ** is phonemic

(contrastive) in a given language. For example, the sound occurs as a conditioned variant of the extremely common nasal sound *n* before velars ([k], [g], [x], [ɣ], etc.), juncture, etc. A related, minor complicating factor in determining the phonemic status of *ŋ*, in particular in those speech varieties where it may occur in initial position, is the presence in languages of prenasalized stops, where there is a homorganic nasal release before stop sounds, i.e. *ŋg-* *ŋk-*. Note that some languages, e.g. Swahili, a language of eastern Africa, actually contrast /*ŋ*/ and /*ng*/ (pronounced [ŋg]) in word-initial position (1).

(1) Swahili (Johnson and Madan 1991 [1939]: 335)

<i>ŋoa</i>	vs.	<i>ngoā</i>
'root up'		'passion, lust'

With regard 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 only in those languages spoken in northern and eastern Siberia, e.g. Nganasan (Samoyedic, Uralic; north-central Siberia), Kerek (Chukotko-Kamchatkan; northeastern Siberia), Itelmen (Chukotko-Kamchatkan; eastern Siberia), Nivkh (isolate; southeastern Siberia and Sakhalin Island), Dolgan (Turkic; north-central Siberia), Kolyma Yukaghir (isolate; northeastern Siberia), and all Tungusic languages (a family spoken throughout central and eastern Siberia), but is lacking word-initially in Buriat (Mongolic; south-central Siberia), all Siberian Turkic languages except Dolgan (central Siberia), southern Samoyedic languages (Uralic; central Siberia), Khanty, Mansi (Ob-Ugric, Uralic; western Siberia), and Ket (Yeniseian; north-central Siberia). For more on *ŋ* in the languages of Siberia, see Anderson 2003a, 2003b.

(2) Nganasan (Tereščenko 1966a: 374)

- ɲukagə* 'many, a lot'
 Kerek (Skorik 1986: 79, 85)
ɲuyɲən 'tail'
 Itelmen (Volodin 1997: 63, 65)
ɲosx 'tail'
 Nivkh (Gruzdeva 1998: 24)
ɲamk 'seven'
 Dolgan (Ubrjatova 1985: 41)
ɲassa 'pipe'
 Kolyma Yukaghir (Nikolaeva and Xelimskij 1997: 160)
ɲol- 'be'

Tungusic languages

- Even (Novikova 1997: 291)
ɲinɨ 'dog'
 Negidal (Cincius 1975: 663)
ɲoo- 'smell, sniff'
 Nanai (Cincius 1975: 657)
ɲaala 'hand'
 Ulcha (Cincius 1975: 668)
ɲele 'wolf' (< 'fear')

Some languages permit *ɲ* only in syllable-final or coda position. These include Burushaski (isolate; Pakistan or India), Hmong Njua (Hmong-Mien; southern China), Lower Grand Valley Dani (Trans-New Guinea; Papua, Indonesia), Mandarin, and West Greenlandic (Eskimo-Aleut).

- (3) Burushaski (own field notes)
ariɲ 'my hand'
 Hmong Njua (Lyman 1979: 10)
tóɲ 'edible gourd'
 Lower Grand Valley Dani (Bromley 1961: 37)
saɲ 'bark container'
 Mandarin (Li and Thompson 1981: 89)

fáŋzi 'house'
 West Greenlandic (Vaxtin 1997: 98)
akiŋa 'answer me'

Other languages do not permit this sound in coda position at all. These include Fijian (Austronesian; Fiji), Gooniyandi (Bunaban; Western Australia), and Supyire (Gur, Niger–Congo; Mali), none of which permits any consonants in coda position. More interestingly, there are languages which lack *ŋ* in coda position, but do permit final consonants, e.g. Nenets (Northern Samoyed; Siberia), Margany (Pama–Nyungan; Queensland, Australia), and Canela–Krahô (Macro–Ge; Brazil).

- (4) Fijian (Dixon 1988: 22)
ŋonevuli 'student'
 Gooniyandi (McGregor 1990: 67)
ŋaŋi 'I'
 Supyire (Carlson 1994: 26)
ŋɔɔ 'sleep'
ŋáɡà 'scratch'
 Nenets (Décsy 1966: 51)
ŋobkad 'often'
 Margany (Breen 1981: 284)
ŋaŋbaɖ 'sweat'
 Canela–Krahô (Shell 1952: 116)
ŋapar 'your nephew'

Less frequently, certain languages allow *ŋ* *only* in syllable-initial or onset position, for example Eastern Kayah Li (Karen, Tibeto–Burman; Myanmar).

- (5) Eastern Kayah Li (Solnit 1997: 351)
ŋò 'language', 'weep'

2. Geographical distribution

In the basic 100–language sample of the *World Atlas of Language Structures*, 52% lack this sound in their phonemic inventory altogether. These include a diverse range of languages from all over the globe, for example Abkhaz (Northwest Caucasian; Georgia), Asmat (Trans–New Guinea; Papua, Indonesia), Barasano (Tucanoan; Colombia), Basque, Chalcatongo Mixtec (Oto–Manguean; Mexico), Egyptian Arabic, Hausa (Afroasiatic; Nigeria), Khoekhoe (Central Khoisan; South Africa), Lakhota (Siouan; north–central United States), Modern Greek, Russian, and Turkish.

While many Papuan and New World (North and South American) languages lack the sound altogether, so that phonemic *ŋ* is rare or highly marked in these macro–areas, phonemic *ŋ* is found in such Papuan languages as Yimas and Enga, or in New World languages like the Yup'ik languages (Eskimo–Aleut; Alaska and northeastern Siberia), Cahuilla (Uto–Aztecan; southwestern California), Mapudungun (Araucanian; Chile and Argentina), or Lealao Chinantec (Oto–Manguean; Mexico).

- (6) Yimas (Foley 1991: 39)
ŋarwa 'penis'
 Enga (Lang 1973: 77)
ŋili 'shot', 'nail'
 Central Yup'ik (Jacobson 1995: 498)
ŋellar- 'to laugh'
 Cahuilla (Bright 1965b: 243)
hé-naŋ 'his tongue'
 Mapudungun (Salas 1992: 78)
ŋulu 'west'
 Lealao Chinantec (Rupp 1989: 1)
ŋi^H 'his/her face'

In the New World languages, phonemic *ŋ* is most common in the southwest of North America (especially California), southern Mesoamerica and central Brazil. Phonemic *ŋ* is also quite common in Australian languages (where it is nearly universal), and in a band across central Africa. It is lacking in most Dravidian and Indo-European languages of South Asia, but is found in Burushaski, some Munda languages, and languages of the Tibeto-Burman family. Phonemic *ŋ* is quite common in northern Eurasian languages and nearly ubiquitous among the languages of Southeast Asia. The distribution of *ŋ* in the Pacific, Australia and Southeast Asia has resulted primarily from the historical spread of the descendants of proto-languages having contrastive *ŋ*, including the proto-languages of the Austronesian, Tai-Kadai, Hmong-Mien, and Austro-Asiatic families of Southeast Asia and the Pacific region, as well as Australian languages, regardless of whether or not these latter form a genealogical unit.

Thirty-two of the basic 100 languages allow *ŋ*- in word-initial position. These include such diverse languages as Bagirmi (Nilo-Saharan; Chad and Nigeria), Canela-Krahô (Macro-Ge; Maranhão, Brazil), Chukchi (Chukotka-Kamchatka; northeastern Siberia), Indonesian, Mangarrayi (Australian; Northern Territory), Meithei (Tibeto-Burman; northeastern India), Oksapmin (isolate; Papua New Guinea), Rama (Chibchan; Nicaragua), and Vietnamese.

(7) Bagirmi (Stevenson 1969: 13)

ŋaŋ(a) 'tooth'

Canela-Krahô (Popjes and Popjes 1986: 161)

ŋũpar 'listen'

Chukchi (Volodin and Skorik 1997: 25)

ŋeekək 'daughter'

Indonesian (Echols and Shadily 1961: 230)

ŋelu 'have a headache'

Mangarrayi (Merlan 1982: 178)

ŋelŋel 'competent fisherman'

Meithei (Bhat and Ningomba 1997: 5)

ŋa 'fish'

Oksapmin (Lawrence 1993: 72)

ŋe 'rotted root of tree/reed'

Rama (Grinevald n.d.: 40)

ŋuu 'house'

ŋaaŋ 'bed'

Vietnamese (Nguyen 1966: 300)

ŋan 'swan'

Initial *ŋ-* is also found in Clallam (Salish; northwestern United States), in various indigenous languages of California, including Wikchamni (Penutian), Luiseño (Uto–Aztecan) and Washo (isolate), as well as in the Andamanese languages (e.g. Aka–Biada and Onge) spoken in the Indian Ocean (8).

(8) Clallam (Thompson et al. 1974: 187)

ŋəscənʔ 'louse'

Wikchamni Yokuts (Gamble 1978: 11)

ŋitʰečʰ 'snot'

Luiseño (Bright 1965a: 344)

ŋaaq 'he's weeping'

Washo (Kroeber 1907: 257)

ŋaunŋaŋ 'baby'

Aka–Biada (Portman 1992 [1887]: 198)

ŋatia-da 'mangrove fruit sp.'

Onge (Dasgupta and Sharma 1982: 6)

ŋi 'you'

One language in this set, Grebo (Kru, Niger–Congo; Liberia), allows *ŋ* in initial position alone, but not in medial or final position (9).

- (9) Grebo (Innes 1996: 35)
 ŋe 'antelope'

Virtually all Southeast Asian, Australian, and non–Papuan languages of the Pacific region have initial *ŋ*–. As mentioned above, the languages of northern and eastern Siberia also have initial *ŋ*–. Certain languages of New Guinea (e.g. Kâte (Finisterre–Huon; Papua New Guinea), Loniu (Austronesian; Papua New Guinea), Nabak (Finisterre–Huon, Trans–New Guinea; Papua New Guinea), Eipo (Mek, Trans–New Guinea; Papua, Indonesia), etc.) possess initial *ŋ*–, as well as a number of New World languages (Lummi (Salish; northwestern United States), Sochiapan Chinantec (Oto–Manguean; Mexico), Gavião (Tupian; Brazil)); but overall, *ŋ*– is not that common in these parts of the world.

None of the handful of 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. Thus, there is a large block of languages from Europe to central Siberia with phonemic *ŋ* which do not allow the sound word–initially. The majority of the Native American languages of California with phonemic *ŋ* do not permit the sound word–initially, while elsewhere (Africa, South America, Papua New Guinea) non–initial phonemic *ŋ* occurs only sporadically.

3. Theoretical issues

In the case of languages that allow phonemic **ŋ** in word-final or syllable coda position, but not in word-initial or syllable onset position, we find a violation of the well-known dictum, usually attributed first to Roman Jakobson (1941), that coda-position allows fewer contrasts or phonemes than onset position. Further, based on the phonotactic distribution of the velar nasal across the languages of the world, it appears 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. Lastly, while the macro-areal distribution and phonotactics of contrastive **ŋ** are relatively straightforward, there is actually considerable variation on the micro-areal level.