

## 8. Lateral Consonants

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### 1. Introduction

In their consonant inventories most of the languages in the world have a consonant sound similar to that represented by the / in English *lake*, Spanish *lobo* 'wolf', or Indonesian *laki* 'husband'. The technical phonetic description of sounds of this type is that they are voiced lateral approximants produced at the dental or alveolar place of articulation. The word *lateral* in this description refers to the fact that during their production the flow of air originating from the lungs is directed around a region of contact between the tongue and the roof of the mouth which leaves a passage for the air to escape to one or both sides of this central closure. The size of the channel through which the air flows is wide enough that the flow is unimpeded and does not create friction noise as it passes, and the vocal folds are in the normal position to produce voicing vibrations in the same way as is typical during vowel sounds. Sounds with lateral airflow are most often produced with the tip or blade of the tongue making contact with the back of the upper teeth or at a position just behind the teeth; hence they are labeled dental or alveolar. If you pronounce the "l-sound" of a language familiar to you but then keep the tongue in the same position and draw the breath quickly inwards the colder inward-flowing air will help you feel where the side passage for airflow is located.

In this chapter the occurrence of laterals of this common type and of various other kinds of lateral consonants that are less frequently found will be described, as well as the distribution of languages that have no lateral consonants. As in other chapters discussing aspects of consonant inventories, the set of sounds under consideration is the set of contrasting

sounds as represented by their most typical pronunciation (see chapter 1).

## 2. Classification and distribution of laterals

Over four-fifths (471 or 83.2%) of the languages surveyed for the chapter have one or more lateral consonants, while the remainder (95 or 16.8 %) have no lateral segments of any kind in their consonant inventory. These languages make up the "no laterals" class. The largest number of these occur in the northern half of South America, with a significant cluster also occurring in New Guinea, and a scattering of other cases in other parts of the world. About a third of these languages with no laterals have no "liquid" consonants of any kind. Liquids are the class of consonants including both lateral approximants and the family of sounds usually represented by the letter *r*. The latter are sometimes called "rhotics", after the name of the Greek letter "rho" which is used to write a member of this family. Laterals and rhotics form a class together because in many languages these sounds have a special freedom to occur in consonant clusters (e.g. in English *play, pray; clue, crew*). Also, in some languages laterals and *r*-sounds are alternative ways of pronouncing the same distinctive unit in the sound system, e.g. in Korean. Among languages with no liquids are Apurinã (Arawakan; Brazil) and Siona (Tucanoan; Ecuador); the New Guinea languages Dera (Senagi), Usan (Madang, Trans-New Guinea) and Gadsup (Chimbu, Trans-New Guinea); Hopi (Uto-Aztecan; Arizona), Seneca (Iroquoian; New York State) and Tlingit (Na-Dene; Alaska) among the native languages of the United States; Efik (Cross River, Niger-Congo; Nigeria) and Xiamen (Chinese; southeastern China).

@	1. No laterals	95
@	2. /l/, no obstruent laterals	388
@	3. Laterals, but no /l/, no obstruent	29

laterals		
@	4. /l/ and lateral obstruents	46
@	5. No /l/, but lateral obstruents	8
	total	566

Languages with lateral consonants are divided here first according to whether they have a lateral of the typical type, that is, a dental or alveolar voiced lateral approximant as normally represented by the letter *l*. Secondly they are divided according to whether they have lateral fricatives or affricates. Like other fricatives, lateral fricatives are sounds in which the channel through which the air flows is narrowed to the point that the flow of air becomes turbulent and noisy. However, in this case the narrowed channel is to one side or the other of a contact between the tongue and the teeth or the roof of the mouth. Welsh, a language that does not figure in the sample, is well-known as an example of a language with a lateral fricative, which is represented by *ll* in the orthography in words such as *llan* ‘church’. The phonetic symbol for this sound, a voiceless alveolar lateral fricative, is /ɬ/; thus the word can be transcribed /ɬan/. Lateral affricates are stops in which a /t/ or /d/-like closure is released into a lateral fricative by lowering one side of the tongue. As discussed in chapter 4, fricatives and affricates are included in the larger class of sounds called obstruents, so the two types of lateral sounds in question can be jointly referred to as lateral obstruents.

Just over three-quarters of the languages surveyed (434 or 76.7%) have a lateral consonant of the typical type. The great majority of these, 388 or 68.6% of the total sample, do not have any obstruent laterals. These languages are shown on the map as the “/l/, no obstruent laterals” class. This pattern is dominant throughout Africa, Australia, Europe and Asia with the exception of a few areas such as the Caucasus region and small parts of Africa. As the frequency of languages of this type indicates, it is most typical for the consonant inventories of the world’s

languages to include /l/ and to exclude obstruent laterals. Some of the languages in this class also have other lateral sounds which are not obstruents, such as ones made with a constriction further back in the mouth, for example at the palatal place of articulation, or pronounced without voicing or with glottalized voicing (see chapter 7). The sound represented by // in Spanish orthography in words such as *calle* ‘street’ is pronounced as a voiced palatal lateral approximant (phonetic symbol /ʎ/) in some varieties of Spanish, including the variety of Peninsular Spanish included in the sample. A voiceless alveolar lateral approximant occurs in Standard Spoken Tibetan in the word for ‘god’ /l̥á/, which forms the first part of the place-name Lhasa.

In addition to the languages of the most common type “/l/, no obstruent”, there are a further 29 languages in the sample which have one or more non-obstruent lateral consonants and have no obstruent laterals, but which lack a lateral of the typical type. The most common situation in these languages is that they have one lateral consonant which is pronounced as a flap, a sound with a much shorter duration than the typical lateral approximant. There are, however, a range of other possibilities, such as having one or more lateral sounds made further back in the mouth, or with other than normal voicing. The languages in this rather mixed group are named the “no /l/, no obstruent laterals” group.

Obstruent laterals occur in 54 of the languages surveyed (9.5%). These languages have been divided according to whether they do or do not also have /l/. Those with /l/ are the “/l/ and lateral obstruents” group. Those which lack /l/ are the “no /l/, but lateral obstruents” group. Languages with lateral obstruents are geographically concentrated, occurring especially in the more northerly half of North America, particularly toward the west. Smaller clusters are found in the Caucasus, and around the Lake Chad basin and the northeast highlands regions of Africa. Lateral fricatives occur in 51 of these 54 languages. These sounds are most often voiceless — a voiced lateral fricative

occurs in only 8 of the languages, and in every case but Tigak (Austronesian; New Ireland, Papua New Guinea) there is also a voiceless counterpart in the language. Three languages, Kabardian (Northwest Caucasian; Russia), Yuchi (isolate; Tennessee) and Tlingit (Na–Dene; Alaska), have ejective lateral fricatives. Lateral affricates are less common than lateral fricatives. There are only 25 languages in the sample (4.4%) with at least one lateral affricate; in 20 of these there is an ejective lateral affricate, making lateral affricates the class of consonants which are most likely to be produced with the ejective mechanism (see chapter 7). In general, languages with any lateral affricates also have at least one lateral fricative in their consonant inventory; this is so for 22 of the 25 languages in question, with only Kiowa, Wintu and Squamish, three languages of North America, reported as having affricates but no fricatives among their lateral sounds.

The great majority of the languages with obstruent laterals, 46 of the 54, also have a typical lateral approximant in their consonant inventory, leaving a small and interesting set of 8 languages in which the common type of lateral is missing even though some have several obstruent laterals. The 8 languages include 4 in the Pacific Northwest, namely, Tlingit and Ahtna of the Na–Dene family, Nuuchahnulth of the Wakashan family, and Kutenai. Tlingit has five different types of obstruent lateral consonants, and Ahtna has four. These languages seem to have accentuated an areal pattern that favors the inclusion of obstruent laterals by excluding the common lateral type altogether from their inventories. A fifth member of this small class is also a North American language, Kiowa (Kiowa–Tanoan; Kansas and Oklahoma).

### **3. Discussion**

In summary, it appears at first glance that there is a very strong relationship among the main classes of laterals discussed in this

chapter predicting how they will occur together in consonant inventories. If a language has a lateral affricate in its consonant inventory, then this generally entails the presence of a lateral fricative, and if a language has a lateral fricative, then this generally entails the presence of a lateral of the common approximant type. The first part of this observation makes a meaningful prediction, since 88% of the languages with affricates also have fricatives; but the second part has no similar power to predict as the distribution is not greatly above a chance co-occurrence. Since /l/-type sounds are so commonly found, in a random subset of 51 languages drawn from our sample, 39 could be expected to have a sound of this type. Of the 51 languages in our survey which happen to have lateral fricatives, 44 also have a "typical" lateral approximant, a number not greatly above the chance level of 39. The occurrence of obstruent laterals therefore does not seem to be linked in any significant way to the occurrence of lateral approximants, but the two classes of obstruent laterals do show a strong tendency to occur together.

One final class of consonants with a lateral component should be briefly noted in this chapter. Among the click sounds discussed in chapter 19 is a type of click in which the release of the closure is made by lowering a side of the tongue in much the same way as in a lateral affricate. Lateral clicks behave, in the phonology of the languages which have them, in very much the same way as other clicks and do not seem to have any connection to the consonants normally considered to represent the class of lateral sounds. They have therefore not been included among the sounds discussed in the present chapter.