

# TONE LANGUAGES

The examples are grouped according to the traditional division into contour- and register-tone languages.

## A. Contour-tone languages

All examples are from the Asian region:

Mandarin

Cantonese

Thai

## B. Register-tone languages

Two examples of the many West-African tone languages:

Ibibio, a Niger-Kordofanian language spoken in Nigeria

Yoruba; just a brief example but features talking drums

See separate demo for the Sino-Tibetan language **Mpi**, which combines tone with voice quality.

See V&C (p. 9-12), BPM (p. 231-233), Course in Phonetics (chap. 10), Laver (p. 465-483) and Handbook of the IPA (p. 14, and 23/24) for more details.

## Transcription of Tone

There are two main systems for transcribing tone.

The first system is commonly used for register tone languages with a small number of tones.

The basic symbols (illustrated over the vowel **a**) are **á**, **à**, and **ā** for high, low and mid, respectively.

For further possibilities these symbols are combined: e.g. **â** is falling (high + low).

Thus, the symbols do **not** give an impression of the pitch movement, i.e. they are not iconic.

This system is used for the Ibibio example below.

The second system **is** iconic. It is especially used for contour-tone languages. It represents pitch movement on a 5-point scale (1=lowest, 5=highest) by means of so-called *tone-letters* consisting of a vertical reference line on the right preceded by a line indicating pitch. Often the tone is also explicitly described by a series of numbers on the 5-point scale (it may not actually always be possible to reproduce all such sequences typographically as a tone letter).

Even though this system is iconic, it is nonetheless a stylized representation, i.e. it should not be assumed that it captures all details of actual pitch contours.

This system is used in the Mandarin example below.

The Thai example below illustrates the use of both systems (as well as the awkward fact that authors may differ in their designations for tones).

Since the second system can be cumbersome to use in actual transcriptions, for many languages each tone has conventionally been assigned a tone number. For example, the high level tone in Mandarin is referred to as Tone number 1. A syllable with this tone can then be simply notated by appending the tone number as a superscript, e.g **ma**<sup>1</sup>.

A further advantage of using tone numbers is that it provides a convenient way of describing *tone sandhi*. This refers to the often very complex modifications of tones when pronounced in sequence. A commonly quoted example for Mandarin is that in a sequence of two Tone-3 syllables, the first syllable is pronounced with Tone 2.

## 1. Mandarin

(Example from SoWL)

Note: Words are played automatically in the order below

<u>Tone</u> <u>Number</u>	<u>Description</u>	<u>Pitch</u>	<u>Tone</u> <u>Letter</u>	
1	high level	55	ˊ	<b>ma</b> ▶ “mother”
2	high rising	35	ˊ	<b>ma</b> ▶ “hemp”
3	low falling rising	214	ˇ	<b>ma</b> ▶ “horse”
4	high falling	51	ˋ	<b>ma</b> ▶ “scold”

[Click here for examples of the tones spoken in short phrases](#)

[Click here for a complete story using only one syllable, but different tones](#)

## 2. Cantonese

(Example from IPA Illustrations)

high, level	si	▶ “silk”
mid, level	si	▶ “to try”
low-mid, level	si	▶ “matter”
low-mid to low, falling	si	▶ “time”
low-mid to high, rising	si	▶ “history”
low-mid to mid, rising	si	▶ “city”

### 3. Thai

Shows alternative designations for the same tones (arranged on the same line), and alternative transcription methods.

Example from IPA Illustrations		Example from SoWL		
high	<b>k<sup>h</sup>á</b> ▶ “to engage in trade”	high rising	45 ↗	<b>na:</b> ▶ “aunt”
mid	<b>k<sup>h</sup>ā</b> ▶ “to get stuck”	mid falling	32	<b>na:</b> ▶ “field”
low	<b>k<sup>h</sup>à</b> ▶ “galangal”	low falling	21 ↘	<b>na:</b> ▶ (a nickname)
rising	<b>k<sup>h</sup>ǎ</b> ▶ “leg”	low falling rising	215 ↘↗	<b>na:</b> ▶ “thick”
falling	<b>k<sup>h</sup>â</b> ▶ “I”	high falling	51 ↘	<b>na:</b> ▶ “face”

(Just to make life really confusing the SoWL example is reproduced in the web version of “Course in Phonetics” and also in Laver with yet a third transcription method.)

#### 4. Ibibio

(Example from SoWL)

Although the language has three tones (high, low, and falling) the falling tone only occurs on final syllables, giving the following combinations in two-syllable words:

#### Tone on First Syllable

Tone on Second Syllable

	<u>High</u>	<u>Low</u>
<u>High</u>	á k̂p á ▶ “expanse of ocean”	à k̂p á ▶ “first”
<u>Falling</u>	á k̂p â n ▶ “square woven basket”	à k̂p ô ▶ “rubber tree”
<u>Low</u>	á k ù ▶ “priest”	à k̂p à ▶ (small ant)

## **5. Yoruba**

(from A. Simon (ed.) “Musik in Afrika”)

This gives some examples of imitation of tonal patterns by talking drums.

One contrastive example is given at the beginning:

1. ojo (“rain”)
2. ojo (Yoruba name)

Click here for the whole sequence: 



## Tone Sandhi

Most tone languages have a number of rules that modify tones when spoken in a sequence, i.e when spoken in normal phrases rather than in isolation.

One of the most well-known cases is in Mandarin Chinese: when two Tone-3 syllables occur in sequence, the first one is changed to Tone 2.

Three examples are given. Each consists of 3 syllables. They are spoken first as isolated syllables (without sandhi) and then as a phrase (with sandhi). The tone of the middle syllable changes in each case from Tone 3 to Tone2 (indicated by "3>2"). Click on PinYin transliteration for sound; click on English gloss for sonagram, pitch trace and sound.

**mai hau chou**

3 3>2 3

*buy good wine*

**chi shuei guo**

1 3>2 3

*eat water fruit*

**wo hen ho**

3 3>2 3

*I very good*