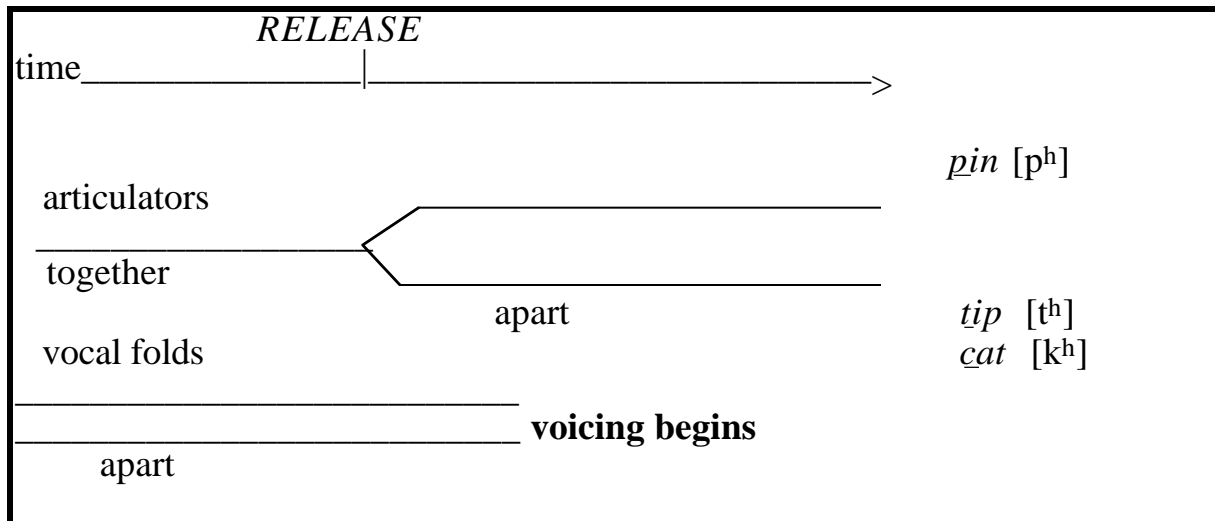


PHONETICS: THE SOUNDS OF LANGUAGE (continued)

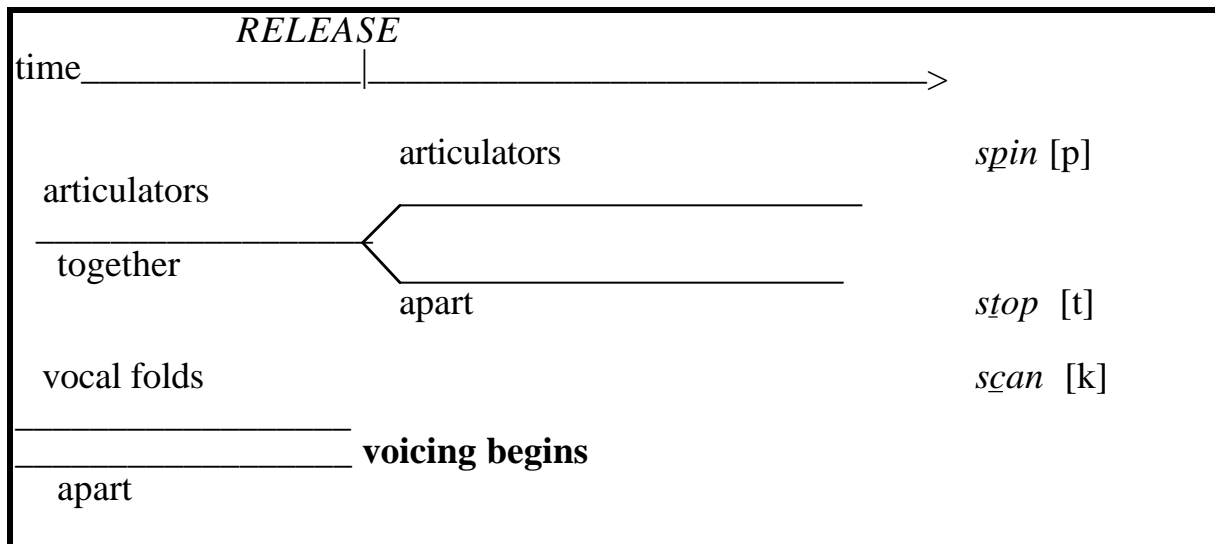
VOICE ONSET TIME (=VOICE LAG) AND ASPIRATION

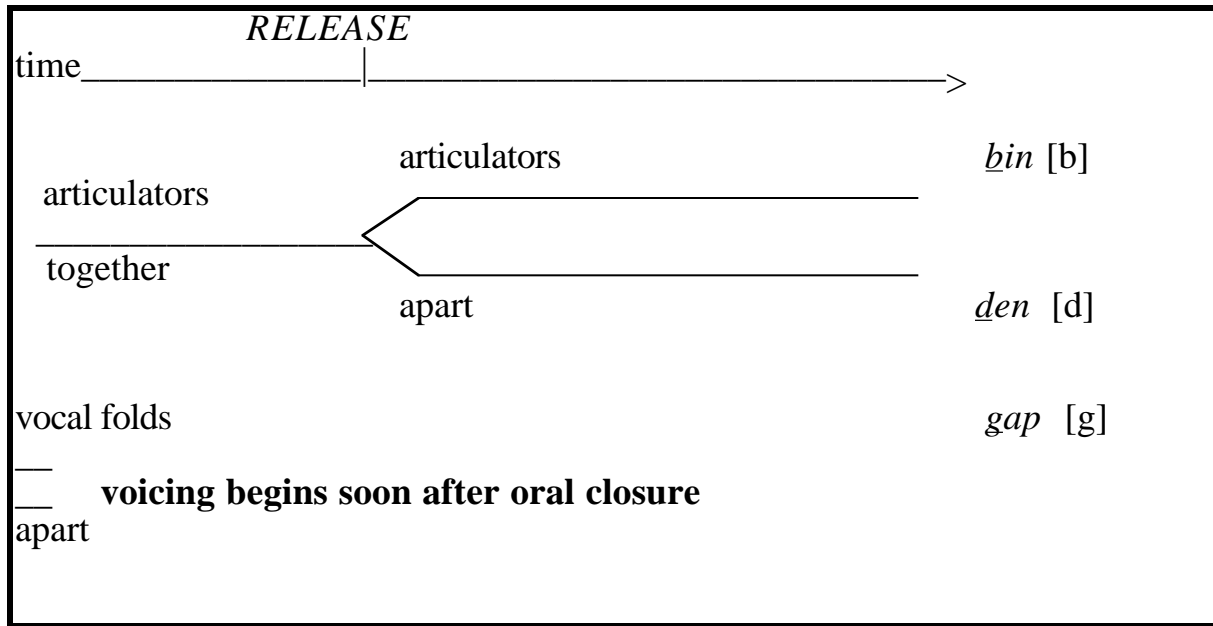
VOICE ONSET TIME (VOT): the moment at which the voicing starts relative to the release of the closure.



Aspiration: lag (= brief delay) in the onset of voicing of the vowel.

↓
impression: extra puff of air





FRICATIVES

Fricatives are articulated by close approximation of two articulators so that the airstream is partially obstructed and turbulent airflow is produced.

ENGLISH FRICATIVE SOUNDS

labiodental interdental alveolar alveopalatal glottal	}	PLACES OF ARTICULATION
---	---	-------------------------------

LABIODENTAL FRICATIVES:

feel [f]
veal [v]

STATE OF THE VOCAL FOLDS:

voiceless
 voiced

The constriction (the narrow passage) is formed with the lower lip and the upper teeth.

INTERDENTAL FRICATIVES:

think [θ] voiceless

this [ð] voiced

The constriction (the narrow passage) is formed by placing the tip of the tongue between the front teeth.

ALVEOLAR FRICATIVES:

see [s] voiceless

zip [z] voiced

The constriction (the narrow passage) is made with the blade (or tip) of the tongue close to the alveolar ridge.

ALVEOPALATAL FRICATIVES:

shoe [ʃ] voiceless

measure [ʒ] voiced

The constriction (the narrow passage) is made with the blade of the tongue close to where the alveolar ridge ends and the palate begins.

GLOTTAL FRICATIVE:

head [h] voiceless

The glottis is closed to about the degree of whispering. There is friction also in the pharyngeal and oral cavities: *cavity friction*.

STUDY Tables 2.5 and 2.6 on p. 24.

AFFRICATES

Affricates are speech sounds that are analyzable as the sequence of a stop followed immediately by a homorganic (=same place of articulation) fricative.

AFFRICATES IN ENGLISH

(alveolar) }
alveopalatal } **PLACES OF ARTICULATION**

ALVEOPALATAL AFFRICATES:

STATE OF THE
VOCAL FOLDS:

<i>church</i>	[tʃ]	voiceless
<i>jug</i>	[dʒ]	voiced

An alveolar stop is released into a palato-alveolar fricative (= both the stop and the fricative are articulated close to a mid-point).

ALVEOLAR AFFRICATES:

<i>nuts</i>	[ts]	voiceless
<i>leads</i>	[dz]	voiced

An alveolar stop is released into an alveolar fricative.

STRIDENTS AND SIBILANTS

STRIDENT FRICATIVES AND AFFRICATES: [s] [z] [ʃ] [ʒ] [f] [v] [tʃ] [dʒ]

↓
high degree of frictional noise : an *acoustic* criterion!

NOTE: in our book [f] and [v] are considered non-strident fricatives.
[θ] [ð] non-strident fricatives: low degree of frictional noise.

SIBILANTS: Speech sounds in which there is a high-pitched turbulent noise.

[s] [z] [ʃ] [ʒ] [tʃ] [dʒ] sibilants

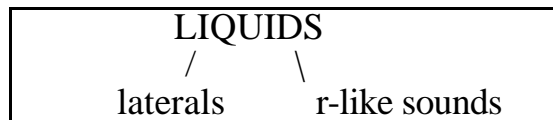
[f] [v] non-sibilants

Sibilants have more acoustic energy → greater loudness at a higher pitch.

LIQUIDS

Liquids are speech sounds that are made with a continuous flow of air through the oral cavity.

They are articulated by approximation of the articulators *without* the oral tract being narrowed to such an extent that a turbulent airstream is produced.



LATERALS:

The obstruction of the airstream is at a point along the centre of the oral tract; the air passes over the sides of the tongue.

LATERALS IN ENGLISH

ALVEOLAR LATERAL: the blade of the tongue makes contact with the alveolar ridge. The tongue is narrowed from side to side so that the air could travel over the sides of the tongue.

STATE OF THE VOCAL FOLDS:

live, load, left [l] voiced

ALVEOLAR VELARIZED (or dark) LATERAL: the articulation is the same as described above, *but the back of the tongue is raised toward the velum.*

feel, tilt [ɫ] voiced

r-LIKE LIQUIDS IN ENGLISH

ALVEOLAR RHOTIC (= r-LIKE) LIQUID: the tongue is raised toward the alveopalatal region; the tongue root is retracted into the pharynx; the tongue is raised and retracted in a knot: “bunched articulation”

read, rapid [ɹ] voiced

NOTE: The book employs the symbol [r]; but [r] represents a different sound in the IPA!

RETROFLEX RHOTIC LIQUID: articulation as described above *but the tip of the tongue is curled!*

Check your pronunciation!

GLIDES

(see definition above)

ENGLISH GLIDES:

palatal }
labiovelar } **PLACES OF ARTICULATION**

PALATAL GLIDES: the back of the tongue is raised toward the palate. The lips are slightly spread. The tongue position is almost identical to the position for the articulation of the vowel in *beat*.

STATE OF THE VOCAL FOLDS:

yes, you [j] voiced

LABIOVELAR GLIDES: the back of the tongue is raised toward the velum and the lips are simultaneously rounded. The position of the tongue and the lips is almost identical to the position of the articulation of the vowel in *lute*.

witch, we [w] voiced

which, when [ɱ] voiceless

Check your pronunciation!

FLAPS

ALVEOLAR FLAPS: the tongue is drawn back and then allowed to strike against the alveolar ridge in returning to its rest position: the tip of the tongue makes momentary contact with the alveolar ridge.

writer, rider [ɾ]

voiced

(*t* and *d* between vowels following a stressed syllable are articulated as a *flap* sound in North-American English.)