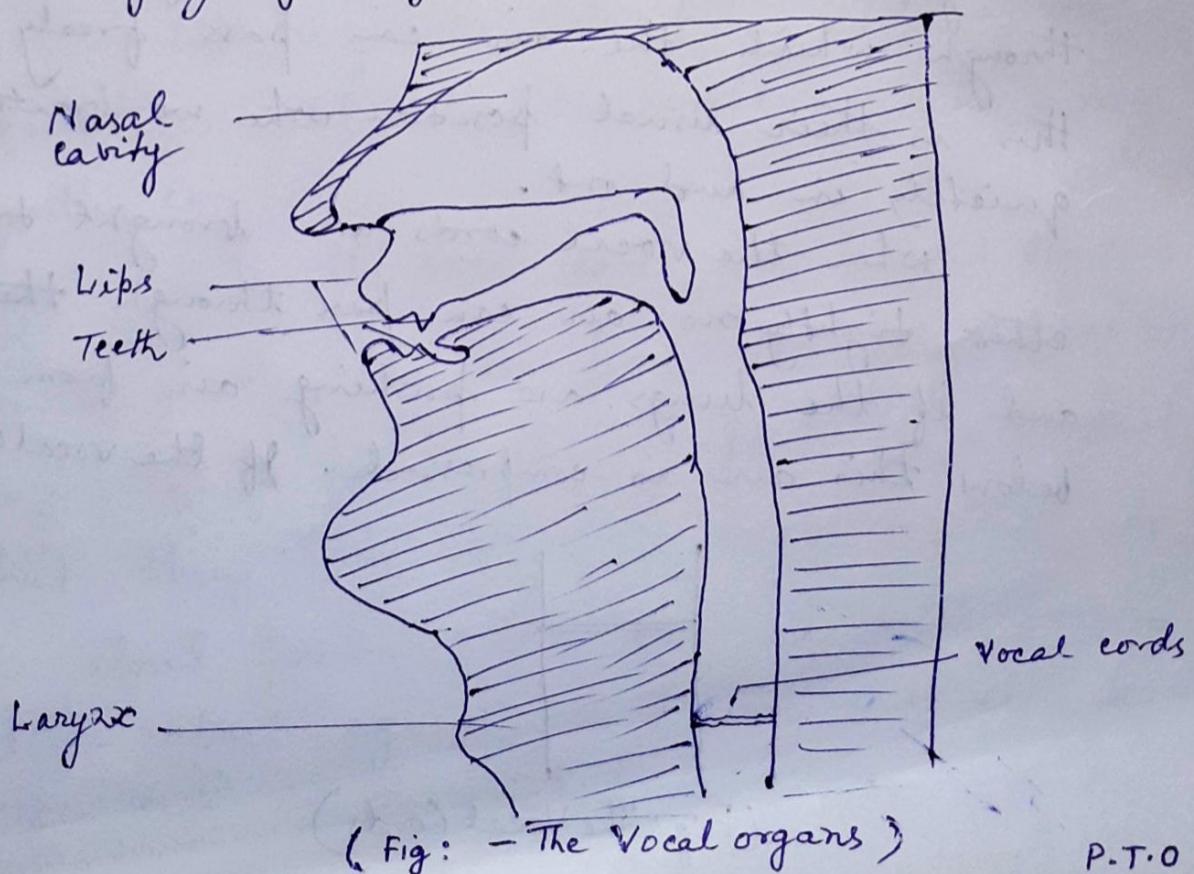


Topic: Speech Mechanism.

It is common to all languages that people speak with air from the lungs. We draw it into the lungs quickly and we release it slowly and then interfere with its passage in various ways and at various places. Following is the diagram showing a side view of the parts of the throat and mouth and nose which are important to recognize for English:-



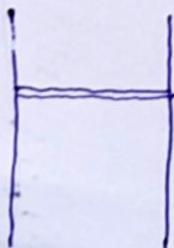
(2)

(2)

The vocal cords:

The air released by the lungs comes up through the windpipe and arrives first at the "Larynx". The larynx contains two small bands of elastic tissues, which can be thought of as two flat strips of rubber, lying opposite to each other across the air passage. The inner edges of the vocal cords can be moved towards each other so that they meet and completely cover the top of the windpipe, or they can be drawn apart so that there is a gap between them (known as the "glottis") through which the air can pass freely: this is their usual position when we breath quietly in and out.

When the vocal cords are brought together tightly no air can pass through them and if the lungs are pushing air from below this air is compressed. If the vocal cords



(Fig: The Vocal Cords)

then opened suddenly, the compressed air burst out with a sort of coughing noise. If one opens his mouth wide, holding breath and imagining that he is picking up a heavy weight, and then dropping it and suddenly lets his breath out, it is called the "glottal stop" and what he feels as the air bursts out is the vocal cords springing apart. This can be done repeatedly to get used to the feeling of the 'click' of the vocal cords as they release the air. The compression of the air may be very great, as when we do lift a great weight, or it may be quite slight, when the result is like a very gentle cough.

If the vocal cords are brought together quite gently, the air from the lungs will be able to force them apart for a moment, but then they will fall back together into the closed position; the air will force them apart again, and they will close again and so on. This is a very rapid

(4)

process and may take place as many as 800 times per second. It is obviously not possible to hear each individual 'click' of the opening vocal cords, and what is audible is a musical note. The height of the note depends on the speed of opening and closing of the vocal cords; if they open and close very quickly the note will be high, if they open and close slowly the note will be low. The note ~~whether~~ whether high or low, produced by the rapid opening and closing of the vocal cords is called "voice".

Some of the English sounds ~~do~~ have 'voice' and some do not. In utterance of the 'm' sound, if one puts his fingers on his neck by the side of the larynx, the vibration of the vocal cords can be felt. But if lips are closed still and one breathes hard through his nose, no vibration can be felt.

(continued in the next lecture)