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BSc Degree

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English-I(Basic English)
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Aspiration in English Words

Welcome to the class. Today, we are going to look at some aspirated sounds at the initial position of a word in English. Now, you know about words; you know a little bit about aspirated sounds as well. Remember the distinction between k and kh. K is a velar sound, but it is unaspirated, i.e., there is not much additional flow of air with it. But when we say kh, then we see an additional flow of air with the sound. To check this thing, what you can do is put your palm in front of your mouth, just say the sound k. You almost do not feel any flow of air in your palm. But when you say kh, you see, you feel the additional flow of air on your palm.

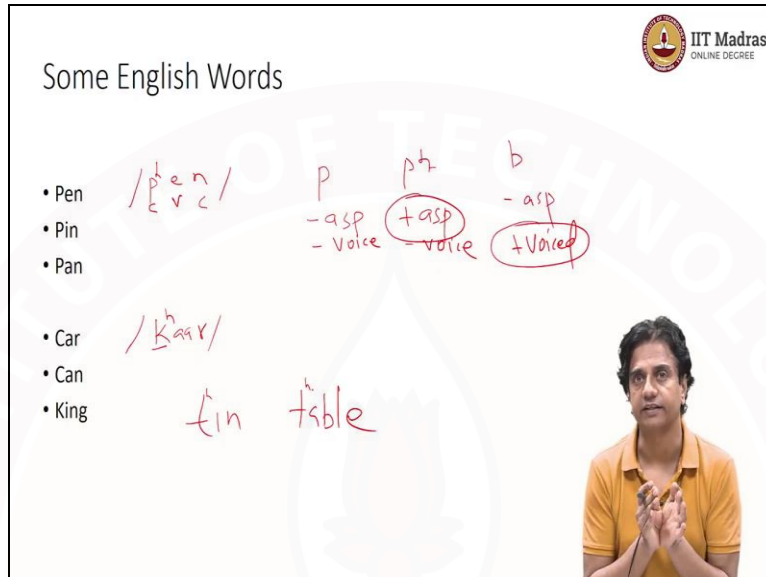
So, this additional flow of air with the sound is known as aspiration. In English, when we pronounce some words, in the process, some of the sounds get aspirated. That is, when we want to say k, a, r, you remember what will be the word with these three sounds k, a, r, it is car.

In English, it sounds as kh a r, kh a r. When we want to say pen, pen, it sound says pen. What causes this aspiration in the initial position of a word is what we are going to discuss today. Therefore, I have called it aspiration in English words, and we will try to look at this once again. I would like to underline the point that when you pay attention to this feature of English sounds, you know that sounds come in a particular order to make words.

So, when we speak a word and we pay attention to these arrangements, to this specific feature of how certain sounds become aspirated at the initial position of the word. First, we pay attention to them; second, we try to understand, third, we try to find out if there is an underlying pattern in it. Once we understand the pattern, we are going to see that the basic meaning of the pattern is such that it is going to apply across the board. So, once we understand the underlying pattern, it becomes so easy for us to hear others, and we apply it when we speak.

It becomes very easy, straightforward, and that makes us confident, and at the end of it, we sound impressive. And such intuitions, trying to find pattern underlying native speakers intuition is what is going to make us sound better in the process of learning of speaking English. Therefore, I want your attention at this point, and I am confident that it will make you confident.

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Some English Words

- Pen: /p^hen/
- Pin: /p^hin/
- Pan: /p^han/
- Car: /k^hɑːr/
- Can: /k^hæn/
- King: /k^hɪŋ/

Phonetic features for /p/ and /b/:

- /p/: -asp, -voice
- /p^h/: +asp, -voice
- /b/: -asp, +Voiced

So, the words that I want your attention at, are words like these that is a word like pen, pin, pan, car, can, king. You see, in each word they are all monosyllabic word. Now we understand syllables. It is possible that a word in English may have than one syllable and the bigger the word, the number of syllables are too many. So, we start with words which have got one syllable, i.e., the word itself as a syllable, we understand it first. Then we will try to see the application of this in English words.

So what is the word here and sounds in this word are also p, a and n, so there are three sounds, two of them are consonants beginning in the initial position, at the end position. In the middle of it, there is a vowel sound. So, what we see is such a sound, such a word, and p in this word becomes aspirated when speakers of English speak this word, it becomes pen. It sounds as pen; intuitively it comes as pan. What that what is happening first, you will be able to see that only when you have looked at the distinction between p and ph; p is a bi-labial sound, but it is not aspirated.

Whereas ph, is a stop sound, but it is aspirated; i.e., it has an additional flow of air. So, this aspiration appears here on this word, so it sounds as pen. So, the first point that I want to underline is our effort in understanding the place of articulation of the sound or the sound or certain additional features of this sounds like whether they are aspirated or not, whether they are voiced or not. Both of these are non-voiced sounds.

And similarly, when we see a sound like b, we know that this is not as aspirated, but this is voiced. Remember, voicing means additional vibration in the vocal chord. Voicing means again when you put your palm here and around your neck and you say the sound b; b. Say it a couple of times to observe this distinction for yourself. You see additional vibration on your palm as opposed to the situation when you say bh or ph. So that makes it a voiced sound.

These things yield to a great deal in our understanding of the underlying patterns, and thus they play a great role in us improving to speak English. So, now we know that this is not a voiced sound, but this is an aspirated sound. So what happens actually in certain situations in English, some sounds at the initial position of the word gets aspirated. So, when we see the first sound getting aspirated, the first thing we notice in each one of these three words p is at the initial position of a word, i.e., at the beginning of a word. So, the first thing that we conclude is, a sound like p is becoming aspirated at the initial position of a word. Then we notice it is not just p; there are more, so, pen pin, pan good. Then we see it is not just p; there are more sounds which are getting aspirated. So, now try to find sounds in this word.

What is the sound? k aa r and so we see that this sound is also getting aspirated. It is becoming kh,kh. So we know that in each one of these words k is at the initial position of the word. So, we see along with p, k is also getting aspirated and then when we move further, we see some sounds with t getting aspirated like tin, table. Okay. So we see these sounds getting aspirated. So, we see that sounds like p, t, and k are getting aspirated at the initial position of the word. So, these are the different stages of us noticing it. First, we notice the initial position and then we notice that there is a similarity between p, t and k. So, we can easily formulate a rule which is known as an underlying pattern, and then we see this applying across the board. Thus, when we pay attention to that, we see our speaking getting improved. Let us look at some more examples.

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Aspirated or non-aspirated ?

Pi	Spy
Pan	Span
Pin	Spin
Pot	Spot
Top	Stop
Cot	Scot
Cat	Happy
Tame	Lucky
Kite	

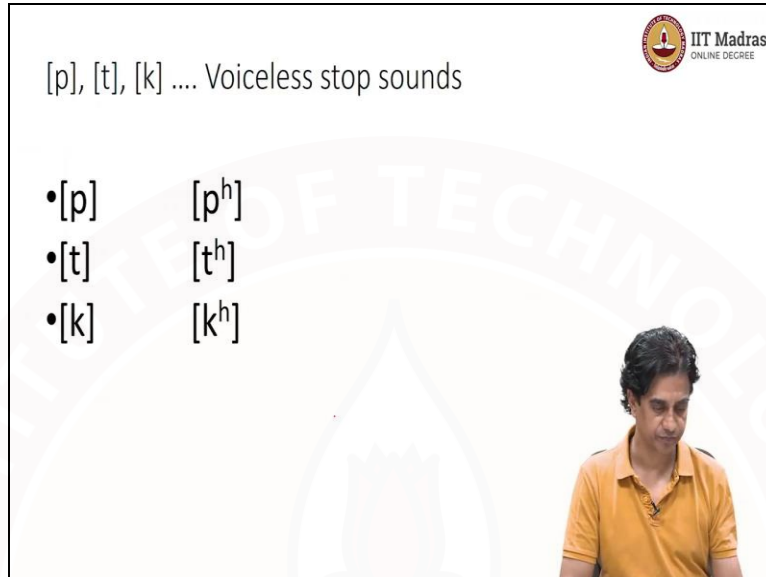
So, what we see that these sounds get aspirated only at the initial position. They do not get aspirated elsewhere, i.e., when they are not at the initial position, for example, look at this; look at the following examples to see the pattern. A word like Pi, it sounds as pi, pan, pin, pot, top, cot, cat, tame, kite. Each one of these words has either p, t or k in the initial position of these words, and they are all getting aspirated.

But, the same sounds when they are not in the initial position of the word, are not aspirated, i.e., when we say spy, it is unaspirated p. Span, when we say this word, pan, it sounds as phan. But, when we say this word, it is span, span. Right here, I want you to understand this word is different from English word like fan. So aspiration in pan (phan) is different from f in fan. This is a labial dental sound, and this one is an aspirated bilabial sound. Okay.

So these distinctions are also quite observable when we pay attention to these words. So, let us get back to the point. p sound in the word span is not aspirated. Likewise, spin, p is not aspirated. Spot, p is not aspirated. Stop, t is not aspirated. Scot, k is not aspirated. Happy, p is not aspirated. Lucky, k is not aspirated. So, what do we observe? We simply observe that p, t, and k as stop sounds, get aspirated only at the initial position of a word. That is our simple rule.

If we understand this much, then we understand a big thing which plays such a crucial role and makes such a big distinction in our speaking. We understand this with clarity. However, when we start looking at this, and we try to see a few more things, it becomes even clearer.

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[p], [t], [k] Voiceless stop sounds

•[p]	[p ^h]
•[t]	[t ^h]
•[k]	[k ^h]

The slide features a large, faint watermark of the IIT Madras logo in the background. In the bottom right corner, there is a small video inset showing a man in an orange shirt speaking.

So, this picture gives you the summary of it that p, t, k which are voiceless stop sounds, they become aspirated. So, this is not aspirated; this is aspirated. So, I was talking about what kind of difference does it make. What other things that we see. Keep in mind. Now we know about a certain feature, we know certain features of sounds, i.e., we know about places of articulations and manners of articulations.

We see how our paying attention to these things are helping us understand these. Recently, we have learnt about syllables; we have also learnt about stress. I want to bring our understanding of these two things into this for you to apply them to your understanding. At this point, I want you to do certain exercises, very small one. Again, try to find words where you have p, t, k either in the beginning position or anywhere else in the word and try to practise applying this pattern.

A, it will improve your vocabulary, it will also improve your speaking. Primarily it improves your speaking, i.e., the way you speak, and in turn, it also helps you build your vocabulary. Now, to find these words, when you pay attention to certain things, then you see that syllables and

stress and our understanding of these two are also going to be critical for this and I want you to find out the role that these two things play in this. I will give you a hint here.


That hint is very simple, which is, look at these words. All these words are words which has got only one syllable. So, when we see words with two syllables, we see that p, t, k are not only getting aspirated at the initial position of a word. Rather they are getting aspirated at the initial position of a syllable. So, if we have a word with two syllables and in the second syllable, if we have p, t and k, in the beginning, that also gets aspirated.

But, if that syllable is stressed, then they do not get aspirated. So, this is called constraint on this. So, we understand this thing by combining them together. We see very obviously that p, t, k as voiceless stop sounds in English, get aspirated at the initial position of the word. No problem with that. We also see that they are getting aspirated at the initial position of a syllable. It becomes important only when we find words where they appear at the initial position of a second syllable in the word, and that also gets aspirated.

I want you to find these examples for you. If those syllables are stressed, then they are not getting aspirated. So, how does this pattern help us and in what ways this kind of constraint is helping us? It is important to pay attention to these constraints also. Otherwise, if we just know that these sounds get aspirated, and we do not look at the constraints, we will end up aspirating these sounds everywhere in the process of learning, and then we will sound awkward. We will not sound appropriate.


So, for achieving appropriateness in our pronunciation, these constraints are important, and I will take you to these examples as well. First, I want you to look at your exercise when you look at your own words.

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Understanding Plurals in English


- In words ending in sounds /p/, /t/, and /k/, the plural markers sound as /s/.
- Every where else the plural marker in English is /z/.
- There does not seem to be much of a difference between /z/ and /iz/.



The last point for today that I want to add to your understanding is, we have looked at plural formation in English. At that time as well, I talked about the role of p, t, k, i.e., when a word ends with p, t or k, we see that at the end of this word, a plural marker sound s and everywhere else it is z. So, what we are saying is, z is a voiced sound and unaspirated sound. So, this voiced sound is becoming devoiced when it comes next to an unaspirated sound.


In this process, as well the role of aspiration and the role of the manner of articulation, the role of place of articulation is important to understand aspiration. This process makes our understanding of underlying patterns clearer and helps us confident when we speak. We see this p, t, k in the plural markers. In words ending in sounds p, t and k, we get s. Everywhere else, it is z.

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Plural rule

- The rule is:
 - /z/ becomes /s/ in the environment of /p/, /t/, /k/
 - Everywhere else it remains /z/.
- The reason for this is the following: /p/, /t/, and /k/ are voiceless sounds, where /z/ is a voiced sound. In the environment of a voiceless sound, a voiced plural marker becomes voiceless. The default agreement is a voiced sound.



So, this becomes an important rule for us, and we get to understand these rules with these features with clarity. Please work on your exercises, and I will come back with more, to help you make your speaking impressive. Thank you.