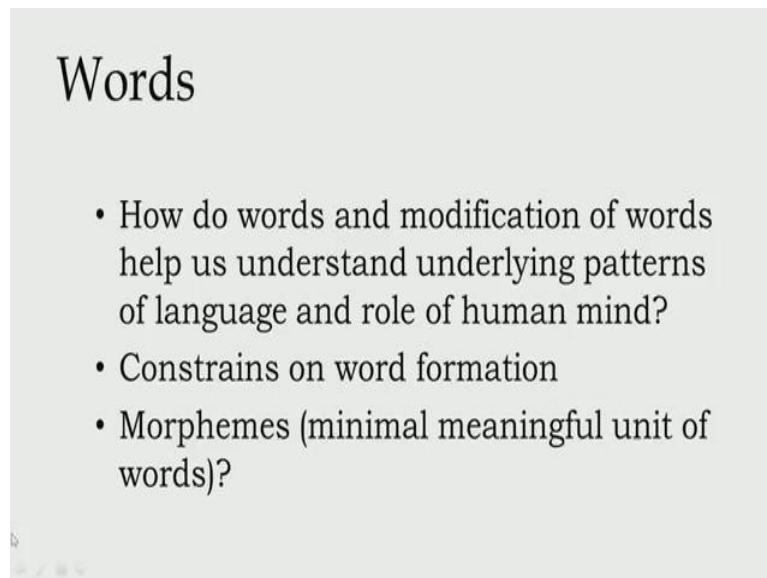


Language and Mind
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Module - 04
Lecture - 16
Words

We will continue our discussion with Words which help us understand the role of human mind in learning language and understanding language. When we say we will look at words, we will continue looking at underlying patterns in making of words for us to understand how we figure out underlying patterns so early and what are the examples of those patterns?

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The slide has a light gray background. At the top left, the word "Words" is written in a large, black, serif font. Below it, there is a bulleted list of three items, each starting with a black dot. The text is in a black, serif font.

Words

- How do words and modification of words help us understand underlying patterns of language and role of human mind?
- Constrains on word formation
- Morphemes (minimal meaningful unit of words)?

Now, you have seen several examples of such patterns and we have tried to understand how these words and little bit modification of words help us understand underlying patterns of language and the role of human mind. The underlying pattern is the crucial thing for us to understand and we have seen several examples of such underlying patterns. We have also looked at constraints on the formation of words and those constraints play a very important role in making words; and in turn, those constraints help us understand how and why a combination of any set of sounds is not possible to make words. We also looked at morphemes, which happens to be a minimal meaningful unit of a word to understand formation of words and how parts could be added to words. We looked at examples from plural formation of Hindi.

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Modification in Words

- Morphemes [A minimal meaningful unit of words]
- Plural Formation Rules in Hindi
 - A masculine noun that ends in a sound /aa/ changes to /e/
 - A masculine noun that ends in any other sound does not change form for plurals.
 - A feminine noun ending in a sound /ii/ gets /aa/ (nasalized) as plural marker.
 - A feminine noun ending in any other sound gets /e/ (nasalized) as plural marker.

When we were looking at plural formation of Hindi, we looked at the fact that though we have several types of words, we see lot of variation in plurals. But, there are pretty straight forward rules that operate in giving us plurals. First of all, when we collect ten, twenty or fifty words in Hindi, fifty nouns in Hindi, and then try to see their plurals, they look completely odd in the sense that we find nothing. We have seen examples where we have things like Kamara becomes Kamrae in plural, Santara becomes Santarae, Kapada becomes Kapadae; but Paani does not change; Ghar does not change its plural form. Ghar does not change its shape in its plural form; Aadmi does not change its form in the plural form.

Ghar means house, Aadmi means men. And there are all other types of examples which we can see. But, what you have seen so far - a careful discussion and careful look at words will tell us that there are simple straight forward rules for us to see that there aren't exceptions in formation of plurals, and we have seen the rules. And to see that pattern, we needed to divide the whole set of Hindi words into two parts: masculine nouns and feminine nouns.

You know, gender plays a very important role in most of the south Asian languages. When we say very important role, we mean an important role in the agreement for formation of sentence. Pretty soon we are going to be looking at sentences and we will be looking at the significance of gender in making a sentence, in the agreement pattern of a sentence and I will explain what we mean by agreement patterns when we are looking at, looking at a sentence little later.

So, for the time-being, we need to understand that assignment of gender to a noun in a language like Hindi is arbitrary. That is, there no underlying rule why a noun should be masculine and why a noun should be feminine, except in the cases of natural gender. For example a word like Mez in Hindi is feminine; this means table. However, if we use the same object and use the English word in Hindi – Table, this becomes masculine. An object like Kameez which means shirt, is feminine in Hindi. However, if we want to use the word shirt, for many it is masculine. Kitaab is feminine, Pencil is feminine. Why these things should be either masculine or feminine? There is no justification for that. Such a thing is called arbitrary assignment of gender. However arbitrary these assignments are, however arbitrary these genders are, Hindi speakers who learnt Hindi very early will make no mistakes in identifying gender of a noun and therefore they come up with grammatical sentences of their language.

Now, we will look at grammaticality and what kind of role gender plays in the grammaticality of a sentence again when we are looking at sentences. So, to wind it up, we have seen that a masculine noun can be of two types: one that ends with a vowel ah and the other group where they do not end with vowel ah. The final sound of a word could be anything but final ah. And then, for these two sets we just need to set up two rules. For the nouns that end with ah, the final ah changes to ae and we get a plural form. For the nouns that do not end with ah, such words do not change their forms; they remain the same. They do not vary in shape, in form, in their plural patterns. This is an important part; this is an important pattern and we see this organization in human mind and from the data set that a child receives while learning a language, a child figures out these two rules subconsciously, unknowingly, without instruction, without being cautious about understanding rules and in turn these things become part of knowledge of language which we are not so aware about, and this is what it means that we know a lot about our language. But we do not know those rules explicitly; this becomes one such example.

All Hindi speakers know this rule; therefore they can come up with plural counterparts. But it is hard for them to give these rules. So, this underlines a lot of things that we have discussed so far. Of course, the most important being how it is stored in human mind, how it is part of universal grammar, how it is part of principles that are part of universal grammar and how this gets applied in the process of language acquisition through language acquisition device.

Similarly, when we look at feminine nouns, we again look at two types: one that ends with long e and the other which do not end with long e. There is one set of rule for the feminine nouns that end with long e and the other set of rules for the feminine nouns that do not end

with long e. These things tell us lot of stories and this is what we have been telling you that we will be looking deeper into the structure of sounds, words and sentences to see what we mean by underlying patterns; what we mean when we say language is a rule governed system; what we mean when we say language is mathematical. Rules apply mathematically in language. We are going to look at two or three examples in a different way to see these underlying patterns related to words to wind this up.

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Feminine Plurals and Modifications:		
- khiRkii	khiRki-y-aaN	'windows'
- gaaRii	gaaRi-y-aaN	'cars'
- kitaab	kitaab-eN	'books'
- bahuu	bahu-y-eN	'brides'

So, look at the set of feminine nouns again. A word like Khirkii becomes Khirki-y-aan, Gaarii becomes Garri-y-aan, Kitaab... So these two, Khirkii and Gaari are one set of, one type of feminine nouns and the other type will be words like Kitaab and Bahuu. Please pay attention to these examples which I have tried to choose carefully for you to see. However you can come up with numerous examples of these types, but all such feminine nouns can be categorised by these two types: one that are ending with long e like Khirkii; ii the final vowel in this word; Gaarii - the final sound of this word is long e and Kitaab which does not end with long e and Bahuu which also does not end with long e. But, the story of Kitaab and Bahuu is slightly different in the sense that Kitaab ends with a consonant ba and Bahuu ends with another vowel, but not long e.

Now, I want to attract your attention to the plural forms again. Please look at the examples on your screen and see what is going on. In the plural form, what is going on is...look at both singular and plural forms. In the singular form, you see the final vowel as the long vowel. Wherever a feminine noun ends with the vowel, the vowel is long and in such cases, in the plural counterpart, the first thing that you observe is shortening of vowels So, look at the two

examples like Khirkii and Gaarii - they are marked on the screen with blue or purple and you can see the shortening of vowels. In the word Khirki-y-aan and Garri-y-aan, the vowel is becoming shorter. So, that is the first thing that happens and this sets in stage for something being added some additional part being added. And now you know how we can describe this additional part and we can call it a morpheme.

So, when an additional morpheme gets added to the word, to a word, it starts its preparation in the sense that, particularly if it is ending with a vowel, it is not going to remain the same; the shortening of vowel takes place and which you can see in three examples at least on your screen - Khirkii - Khirki-y-aan - a short e, Garri-y-aan has short another short e and the word Bahuu, the vowel sound u is also short. Then comes the plural marker. In one set its ah and the other set it is ae. So, the nouns that end with long e takes the marker ah; and this is why I have marked them in red for you to see that they are the plural markers; and the nouns that do not end with long e, in other words they may end with anything other than long e, they get the plural marker ae. Now, remember the sound ae was the marker of plural in masculine nouns as well. So, if we keep the same marker as plural for masculine and feminine both, then probably we will not be able to maintain their gender distinction.

Therefore, you see a systematic difference between masculine and feminine plural patterns. In feminine, you see both the markers ah and ae systematically get nasalized. So, you see the word Ladkiyaan, you see the word Garri-y-aan. Now, I want you to see this carefully that in the word Khirki-y-aan, i-y-aan is not the plural morpheme; it is not the plural part of the word, plural marker in the word. Instead I want your attention to see that there is more than that; and that more is first shortening of vowel, long vowel from the root word becomes short. Then we get plural marker and then we get plural markers nasalized. Good so far? And this applies across the board in feminine plural forms.

There is one more thing that happens in plural formation of feminine nouns. Now remember, I mentioned a minute ago that in order to host a morpheme on the root word, we have shortened the final vowel. Now, that is one part of the Hindi phonology or Hindi morphophonology that is taken care of. Please pay attention to these rules and application of these rules to see the systematic, rule governed phenomena of language and then you will be able to appreciate how this works in subconscious mind. So, shortening of vowel is one part, one rule that applies first.

Then the other rule is, Hindi words particularly the ones that end with a vowel, cannot take another vowel as a morpheme. Look at this carefully. Hindi words that end with a vowel cannot take another morpheme which begins with a vowel. Now, here we find an example of a word like Khirkii that ends with a vowel and the plural marker begins with a vowel - there is a conflict of two rules. The rule says you cannot add a vowel, if the word already ends with a vowel. So, even after making it short, we have a problem. So, to take care of that problem, the way Hindi as an example, takes care of this problem is, it inserts a sound which is a consonant; but this sound is called semi vowel. It is a consonant sound, but it is called semi vowel because it resolves the conflicts of two rules that are related to vowels.

By inserting such a sound in these examples, yaan - we take care of the existing rule of Hindi morphology in the morphophonemics that, avoid ending with a vowel will not allow another word, another morpheme, coming on it which begins with a vowel. By inserting such a sound, we get the stage ready for the plural marker aa to come in.

Now, see how languages resolve its issues? Again, the issue is, on one hand we have a rule; on the other hand we have a marker. Plural markers in Hindi are vowels; that cannot be changed. On the other hand, we have a rule - if there is already a vowel at the final position of a word, another vowel cannot come. To resolve this, we get yaan. So, there are couple of things underlined here which will help you understand the phenomena that, the whole part after Larraki is not the plural marker. Plural markers are indicated in red in these examples and then, for each one of the sounds, I have explained you how they are part of the existing rules, application of the existing rules and then we get the plural formed in Hindi. These are important parts for us to understand. We need to understand two more examples and we will work with these two examples and you will see those two examples shortly.

Thank you.