**Introduction to Psychology**
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Lecture - 20
**Memory Long Term memory- Autobiographical & Semantic Memory**

Let us now, come to another form of episodic memory, what is called as autobiographical memory as the name itself suggests autobiographical memory has to do with events or experiences of one's own lives.

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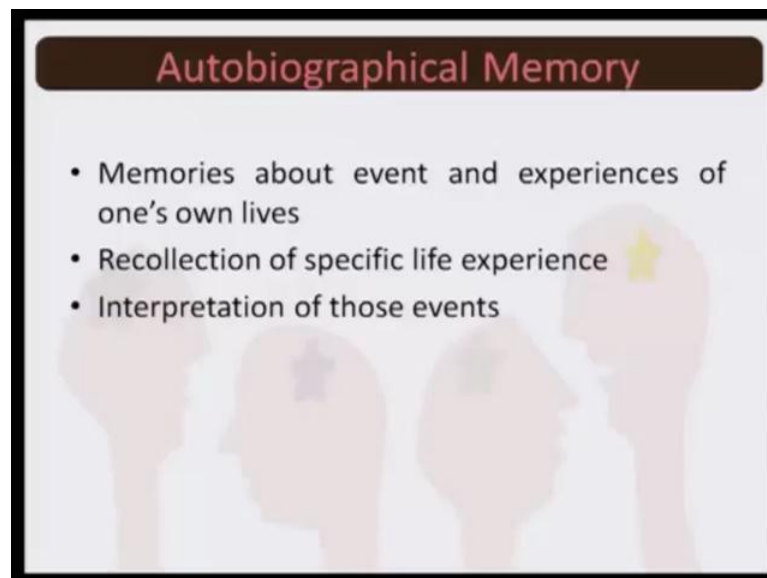
So, what happens when we have certain recollection of a specific life experiences, when you interpret them and you considered this are the events and experiences that defines you your life. So, it somewhere likes your personal life narrative that constitutes the autobiographical memory.

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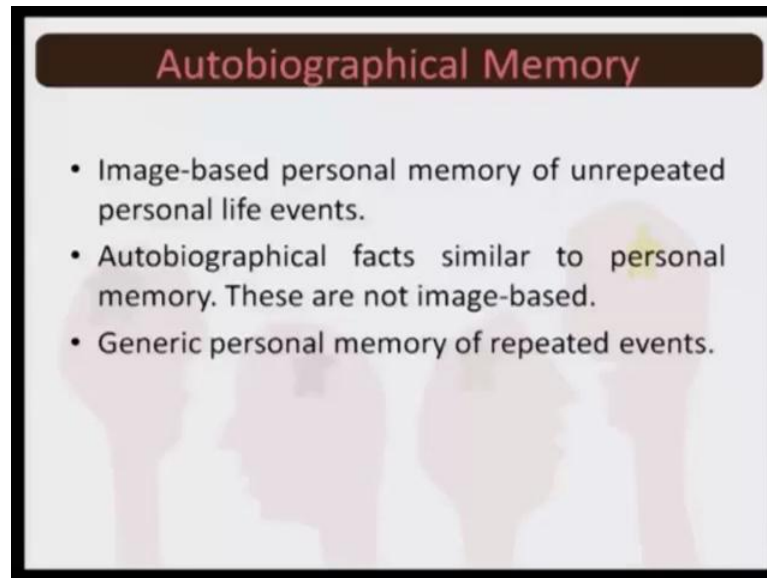
Usually autobiographical memory has the imaged based personal memory of unrepeated events of the life of the individual, but there is also a possibility that it might have facts similar to the personal memory; however, in this case it would be not imaged based and therefore, the generic personal memory of the repeated events that can also become a part of autobiographical memory.

So, one we have the un repeated personal events something that happened only ones, but it was extremely significant for the individual concern and you have a very clear image based personal memory of it one single event highly personally relevant, you and know that such events will not be repeated in life likelihood is very little because of it, uniqueness still we have the image based personal memory of it the second aspect what we discussed was that there could be non image based memory also of fact that are similar to personal memory.

And third we also discussed there could be repeated events of the generic personal memory and therefore, when I remember my name the name of my parents other members of family friends there family members and many of those things which has connection to the self they are considered as part of autobiographical memory.

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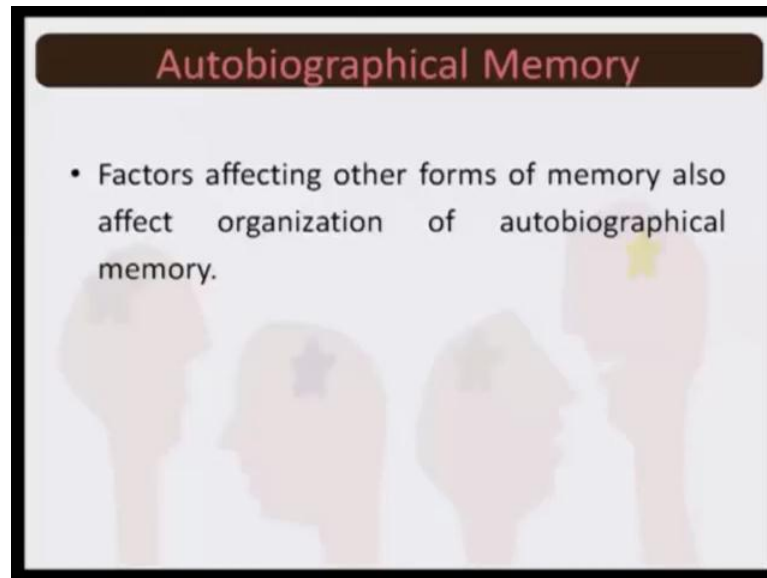
And therefore, the factors that affect other forms of memory they are also suppose to affect the organizational process of autobiographical memory one interesting thing you will find in autobiographical memory what is called as infantile amnesia. Of course, I know is not the normal sequence of forgetting of events it is a disorder, but infantile amnesia is considered to be perfectly normal what happens in this case ah.

Let us take of our life event and then try to understand what actually this means, if I ask you to go back to your earlier periods of life and recollect event significant events till whatever period you can go back to and usually majority of us have a recollection of some of the significant events say when you are 5 years old 4 years old, but only significant once many day to day experiences will not to be recollected simply because we have cross substantial period of time from that various stage.

Therefore, the life events in the first few years usually up to 3 years the chances are we human beings we forget we completely forget and even there after although we have a memory of it we have collection of only significant events not everything this very inability of us not to be able to remember of events of the first 2, 3 years of life is called infantile amnesia because it as to do with the earlier period of life. Therefore, it is called infantile amnesia is of course, forget fullness, but remember in infantile amnesia is not at all considered to be abnormal it not a psychology although we find a word amnesia.
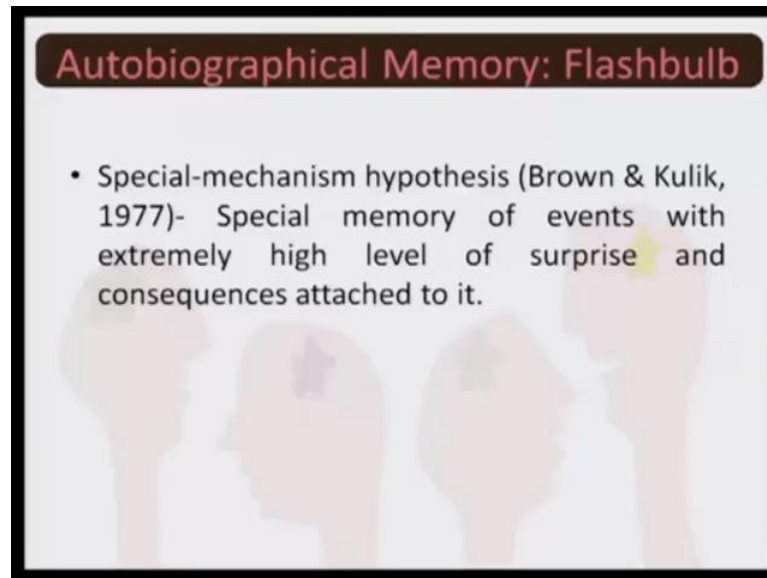
And interesting aspect of autobiographical memory is what is called as flash bulb memory there is you know a mechanism is called special mechanism hypothesis is brown and Kulik brown and Kulik they proposed hypotheses called a special mechanism hypotheses which says a that special memory of events which has extremely high degree of surprise and consequences attached to it they have a better memory.

So, if there is something which has high tend degree of surprising embedment to it or the consequence was something that is unforgettable the chances are let we will remember that is specific movement and that is called as flashbulb memory now flashbulb memory is basically just one type of autobiographical memory.

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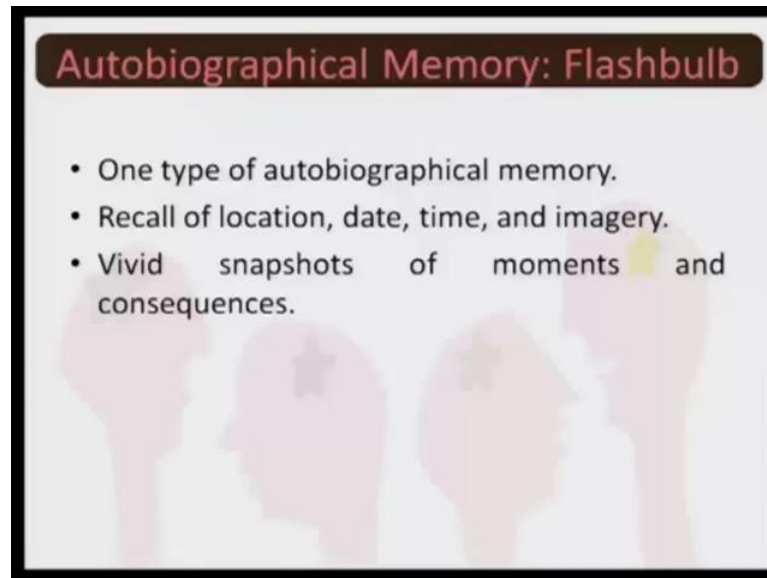
Now, a like know the episodic memory that we discussed especially the eye witness memory in flash bulb memory it is basically recall of location date time and imagery and what do you have we have a vivid snapshots of the moments and consequences. So, surprise as to be there the consequences as to be there and therefore, where did it happen what time what was the date and the image which is base on snapshots of the sequence of the event that what constitutes flashbulb memory.

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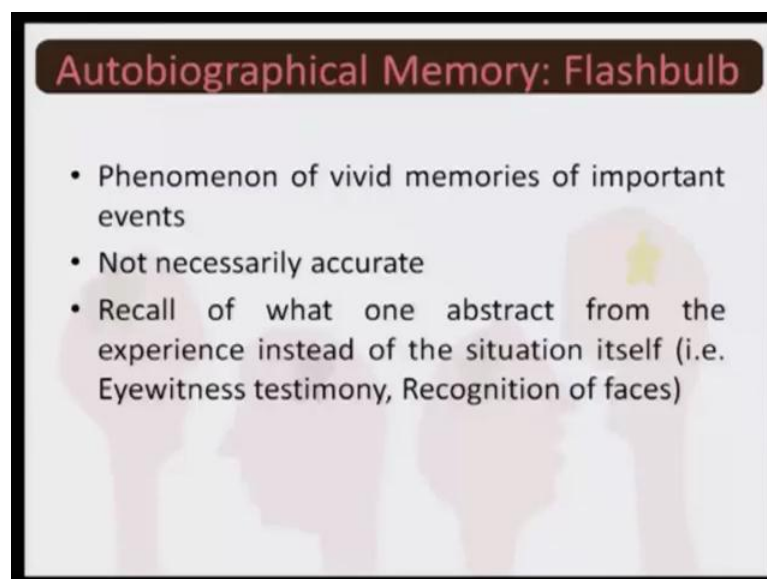
Therefore flashbulb memory as phenomenon of vivid memories of important events, but once again just similar to eye witness memory, it will also proven to distortion therefore, need not accurate in nature.

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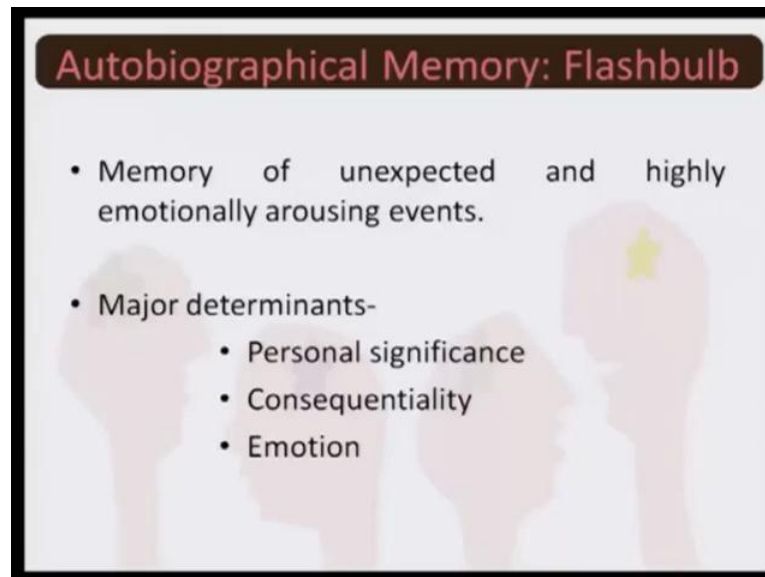
Usually in flashbulb memory it is expected that you will always have memory of something which was unexpected therefore, there is an element of surprise here and because surprise is one of the basic motions therefore, the unexpected surprise come into that very event also emotionally arouses you. So, therefore, the event has high degree of emotional arousal attachment to it and therefore, it becomes a part of flashbulb memory.

Three things are important you know for flash bulb memory one the significance of the event how the personally significant the event is to you 2, what was the consequence. So, more dire the consequences the higher the chances will be remember why because things which as higher consequences dire consequences will you know induce a high tend of degree emotional arousal within you. So, these three things becomes major determinates for flashbulb memory.

Look at this sick lady who experienced violence twice in her life once in nineteen forty seven she was young and India was divided into two-half's India and Pakistan and again in nineteen eighty four when the anti to placed in India [FL] for one of the national geographic programs one war photographer is introduced he was shown his own

photographs and asked to recollect rethink years after the passage of the war what actually was taken place what happens to him look in this video.

I feel it. So, how pretty sad make this pictures is very difficult when you took this pictures and do you have this pictures [FL] [FL] this is a heart hitting picture [FL] now if you look at these two videos in the first case the women in at position to recollect her experience what time of the day what did the police men say and making a comparison between the two experience of communal violence.

In the second event although this photographer considered the event to be significant event to be collect when, he re exposed to his own photographs the consequence of the war the emotions over powers his memory. Therefore, the three things which we discussed right now the personal significance of the event the consequence of the event and then the emotion arousal attached to the memory of the event this three things become extremely important for as flashbulb memory is concerned having discussed episodic memory the flash bulb and testimony, we shall now discuss semantic memory semantic as we referring to it means meaning fullness therefore, the structured record of facts the concepts the skills these constitute the semantic memory.

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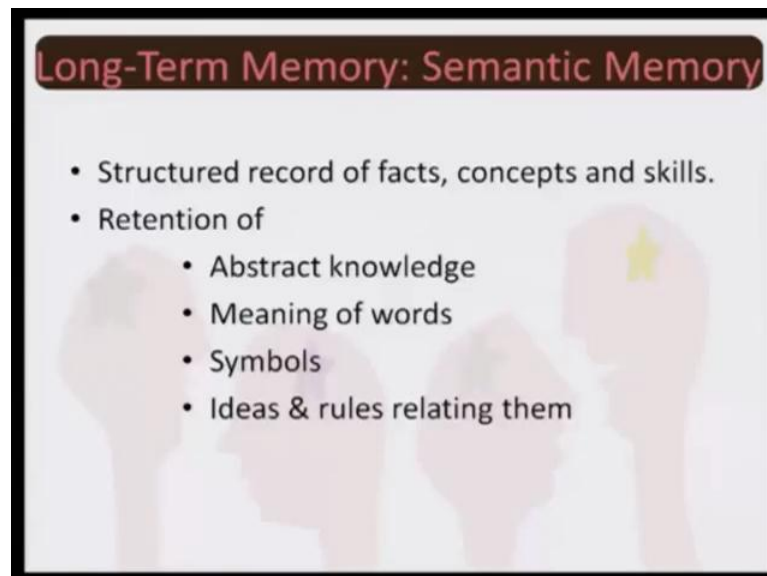
So, it is basically the retention of the abstract knowledge meaning of the words symbols ideas and rules that govern there.
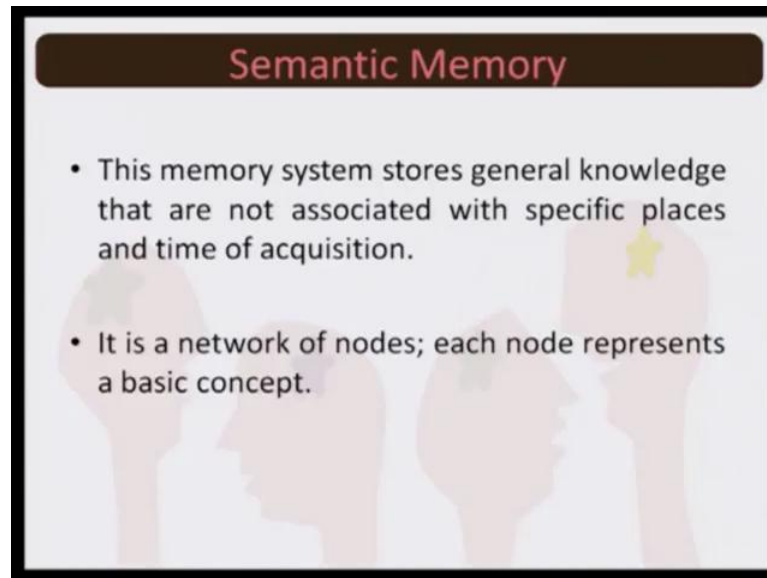
So, this memory system basically stores the general knowledge that are not associated with specific places and time of acquisition remember in the case of episodic memory time of the event a consequence the location these were important parameters on the bases of which the whole sequence of which event was broken into a episodes given what you call that association with personal significance and with the forensic significance we further divided into sorry with eye witness and flash bulb memory whereas because semantic memory as to do more with the concepts the rules that are governed the words that are represent them. Therefore, they are supposed to be basically free from the time of acquisition and the place the location in which you learned this.

Therefore basically what happens here you have a network of nodes and each of the nodes they represent the basic concept the more and more you spread the network higher and better is your semantic memory the much better is the understanding of yours with respect to that specific concept.

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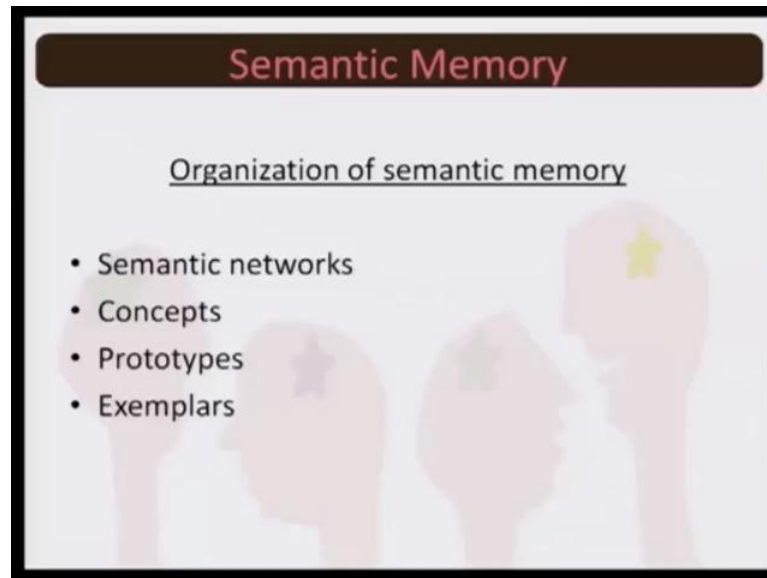
There are four important things in semantic memory they pay important role in organizing the content first is the semantic network we talked about nodes and network that is formed we will talk it about again. So, semantic network concepts the prototypes and the exemplars. So, we will talk about all four of them 1 by 1.

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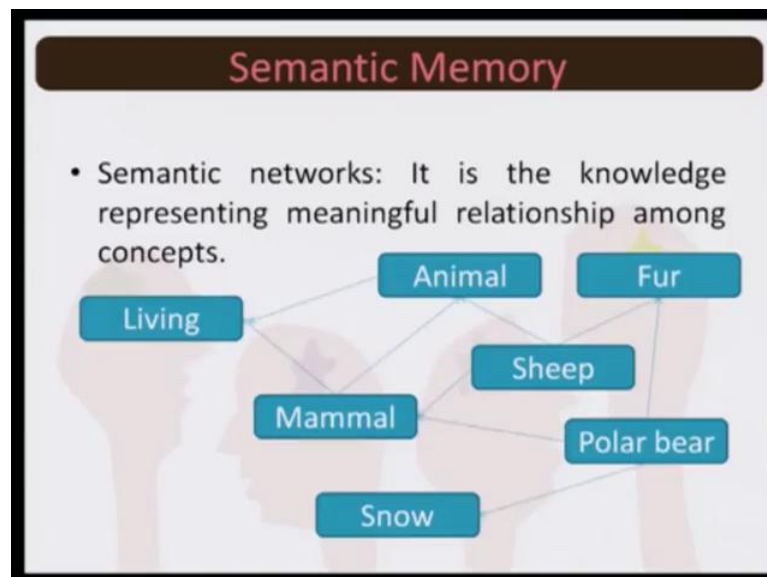
Now, semantic network is nothing, but it is basically knowledge representing meaning full relationship among concepts. So, when you think of an animal the moment you think of animal you consider at animal by default means let it would be living because we have

understood to classify world in terms of living and non living creatures. Now you think if it is say living then it will definitely which could be a mammal you think of one good example of a mammal which is an animal you think of sheep the moment you think of sheep you think it as far the moment you think of you think other animals also have furs.

For instance you think polar bear you connect polar bear is also a mammal which is also animal and the leaving creature polar bear the live on. So, so this is how the network expands you have notes each note representing an important concept and then you start spreading the network the more and more holistic is the network that you derive and the interconnection let you establish between the different notes the more and more better is your semantic memory.

What are concepts these are nothing, but simple mental categories that are used in organizing the objects or events. So, you think of an object you think of an event and therefore, you form a mental category that is called concept.

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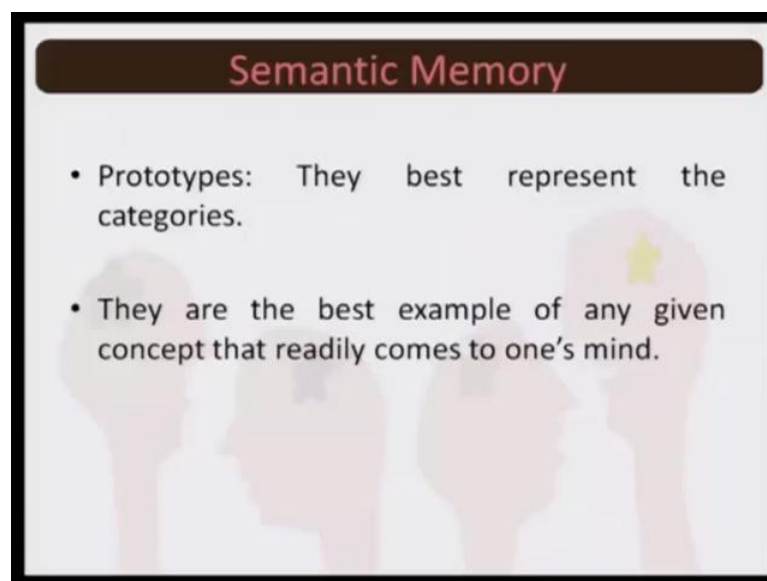
Now, prototypes are the best representatives of these categories. So, they are basically the best examples of any concept that comes to your mind the moment you think of that every concept think for instance you are now told a word tree the moment you hear the word tree a representation comes to your mind a mental representation.
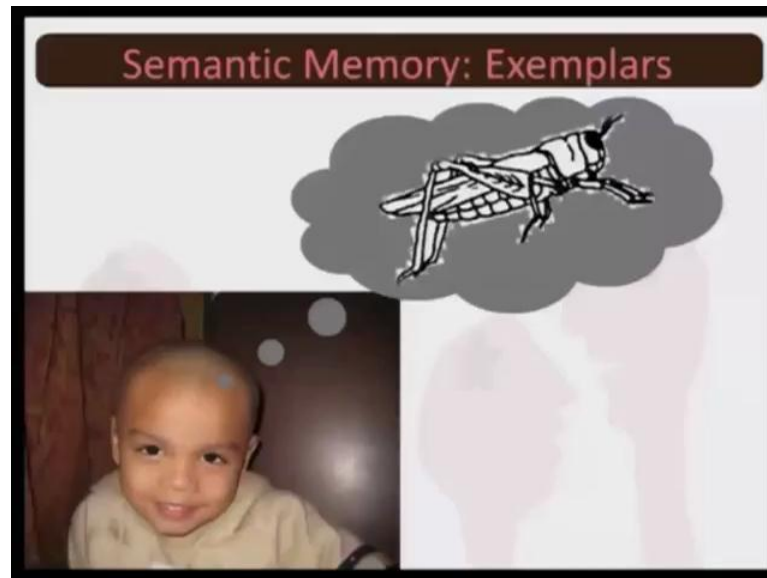
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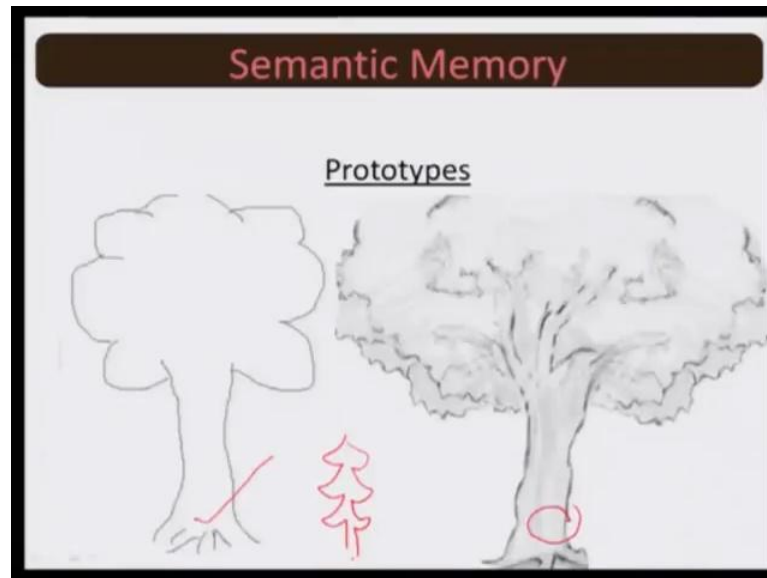
Now, look at your screen in mostly likely wood the line driving at your see of your tree is perhaps the image that you have draw I have performed this exercise several times in the class room let me share one thing with you most of the students in the class where I have tried this example who are from other part of India they usually have know the representation of tree like this actually you have something like this, this very example, but then some of the students who are from the extreme side the mountain area they usually know the they have something like this. So, depending on what type of exposure you have what type of experience you have of a tree you will have the readymade example the image of that very concept. So, what is called as prototype? The category is told to you and the best example that come to your mind that represents that very category.

Now, tree could be of any thing banyan tree pine tree mango tree any type of tree, but depending on the mostly visible tree in your locality you develop an example mental image that is a prototype [FL].

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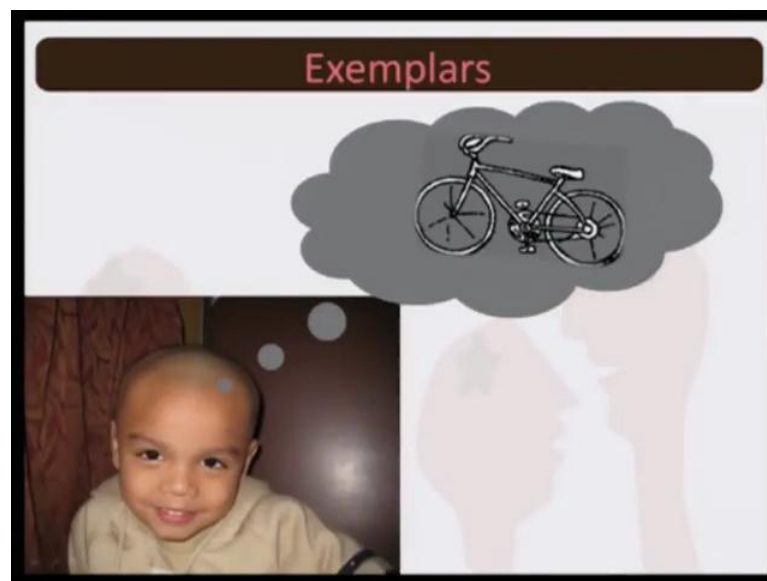
Now, we come to exemplars you think of an insect and you have grasshopper in your mind. So, you think of a bicycle a mode of transport and something comes to your mind. So, these are again the best example of the exemplars what happen in the case of exemplars these are once again the best examples that would come to your mind now what we have discussed we have the notes that represents the concepts each of these concepts are interconnected to several other concepts which basically helps you form an network to represent a concept we have a prototype and we have the best example that would try to explain the concept for yourself.

So, that when you look at certain phenomenon in the world using your semantic network you can think of whole lot of things remember that things are not. So, crystal clear and things are not presented in isolated way we have discussed here in the example, but then we have to simplify it for our understanding as a living being we cannot live in a complex system where most of the things are you know you are not capable of interpreting them and therefore, semantic networks plays extremely important role here.

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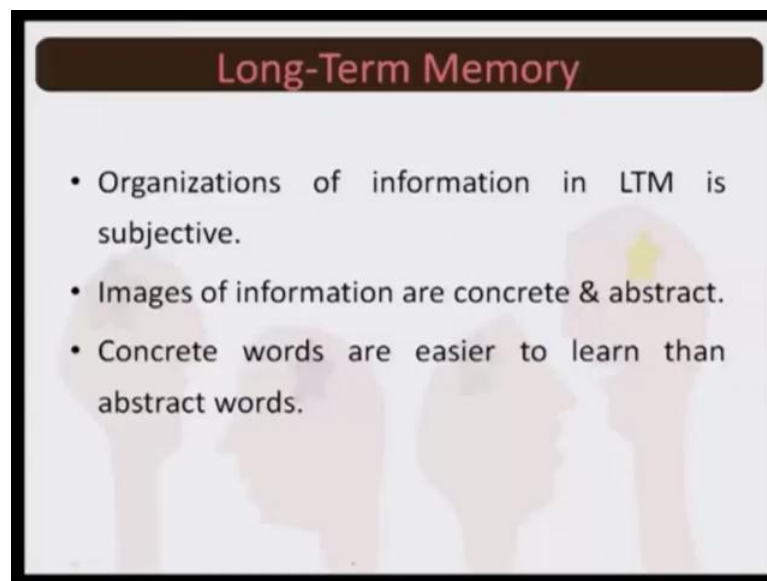
Now, when we come to long term memory organization of information in long term memory is purely subjective how you would organize it is your choice is your convenience images of information's can be concrete are it could be abstract. So, if you are you told something like say old and if you seen your know elderly grandparents in your house you will have somewhere an image of what is you know what is meant by the word old if you hear the word brick. If you hear the word pencil, so many of this things will have a very concrete image that it will generate many other concepts might not generate concrete images say for instance if you are told you know that there was a king he was very honest.

Now, there could be a examples of you know what honesty meant, but then honesty cannot create very clear cut concrete image in your mind similarly if you are told now let he was a very hard working you can think of whatever type of activity this character was involving in the story and accordingly you can think of you can intensify the engagement

of that were individual in that given activity to visualize what it would mean you know to be hard working in this very scenario.

Similarly if you are told many of those qualifications you know which are more qualitative in nature like honesty you have difficulty in creating clear cut images therefore, when we combine this thing in long term memory we might have images of the concrete words and we might have certain images which are more and more abstract in nature and of course, because it is like this. Therefore, the learning of the storage of the concrete words would be much more easily compared to abstract words another interesting thing absorbed in long term memory is what is called as tip of tongue phenomenon.

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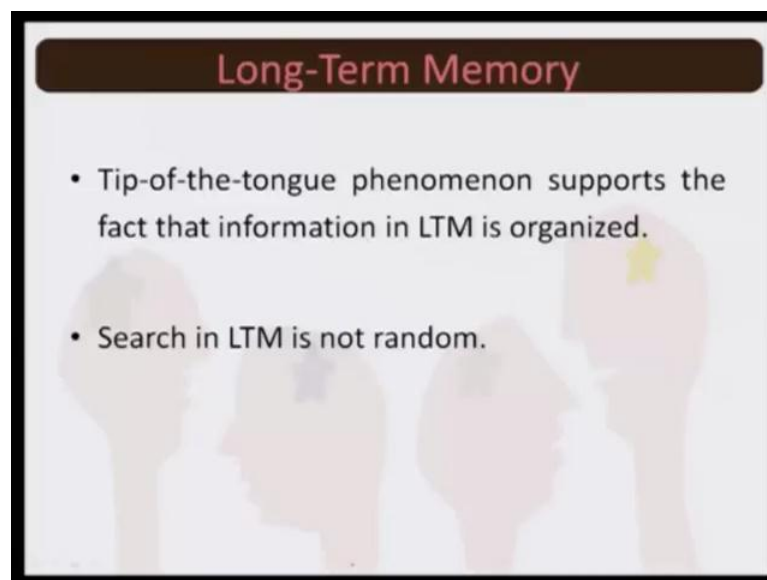
Tip of tongue phenomenon basically means that when we store the information and try to recollect it re failed to do. So, although we feel as if as if things are readily available it is somewhere on tip of the tongue, but it is not making it way out of the mouth and therefore, you are not able to recollect it. So, imagine something like this you know snake inside a barrow this is the barrow the snake comes out from the barrow and again it goes down it is something like that you feel as if the event is about to be recollected you can very easily extract the information from the long term storage.

But somehow you keeps struggling and you are finally, not able to do, this is called tip of tongue phenomenon and why this does this happen basically is a phenomenon which

supports the fact that the storage of information in the long term memory is very, very organized. So, if you want to make a random you know recollection attempt the information will not viewed readily available to you. So, if you move in a sequential order in an organized order because information is a stacked in organized manner retrieval becomes easier because information is stored in the organized manner and you start making random recollection then you fail to do so.