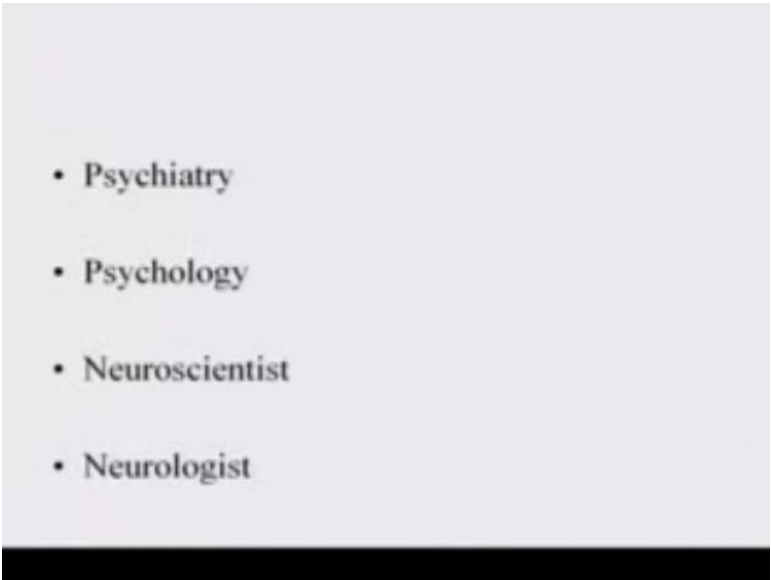


**Psychiatry an Overview**  
**Dr. Alok Bajpai**  
**Humanities and social science**  
**Indian Institute of Technology, Kanpur**

**Module-01**  
**Brain and Behavior-Approaches**  
**Lecture-05**  
**Psychology**

So we come to the last of this introduction to the basis of behavior of this first week model and briefly I would like to tell you the interface of psychiatry with

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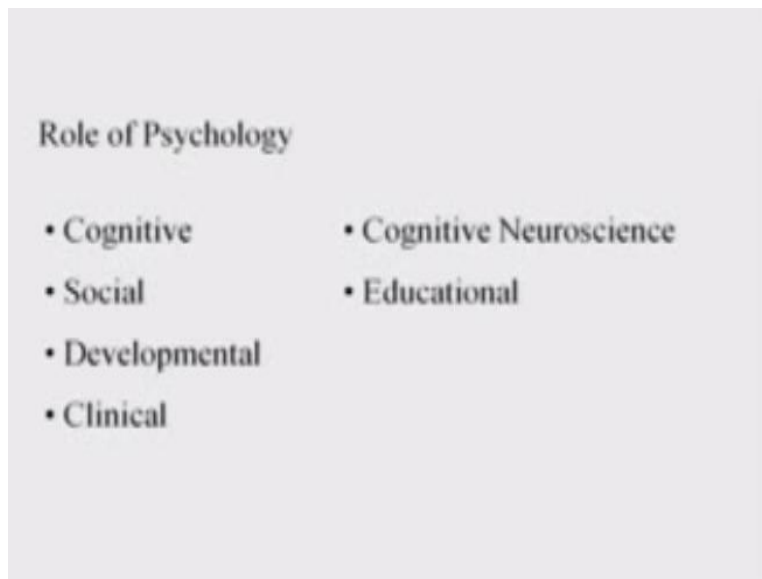
- 
- Psychiatry
  - Psychology
  - Neuroscientist
  - Neurologist

The other branches the country psychology being a neuroscientist and neurologists they all deal with brain as do neurophysiologist and other research thing but largely neurology is a branch is very closely associated and he would overlap with psychiatry psychology is the basis of it all but what does psychology do psychology the study of human behavior as i told you and just pretty old but the Western concept of psychology which we all know is maybe 200 years lot of this paradise which you use in research whether it's

amazing or EEG or cognitive they come from the definitions with psychology has given us and so-called has its various routes.

But it is close interaction with psychiatry is because both are concerned with behavior the framework of normal behavior comes from psychology and abnormalities which arise with the functional brain whether it is because of illness because of some other cause stupid bicycle 2424 psychiatrist to know psychology is the mandatory for step and I said we're hot white

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Where why do we need psychology and in what we need psychology to understand the cognition the social behavior the development the clinical the education

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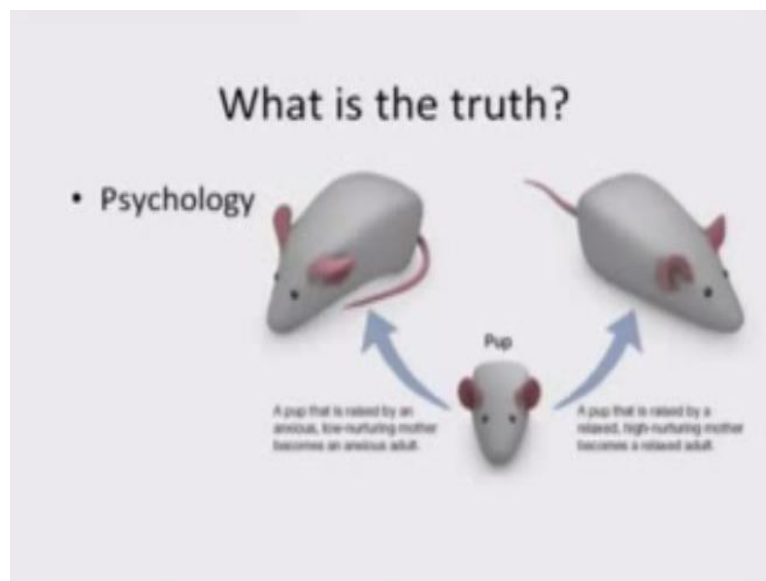
## Psychology asks...

How and why of our behaviour

Individual and group..

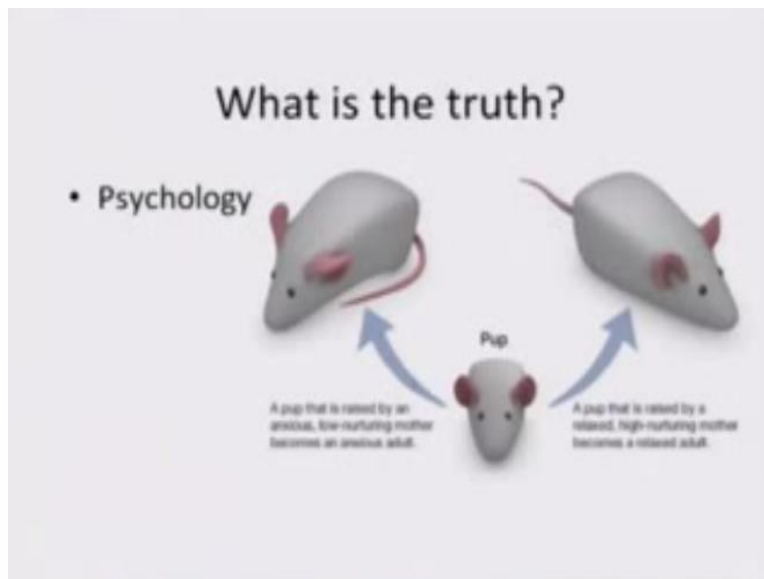
So it is asking how and why of our behavior of individual and group why it is important because these parameters and these definitions define what is normal as we will talk about this when we talk about classification because unless we define normalcy we really cannot move and go ahead with what is abnormal so what is the truth

(Refer Slide Time: 02:34)



There was a huge debate all this while whether it is biology or psychology in between there was this I should not say onslaught but discovery of genetics and there was a phase when everybody thought that genetics will explain everything of human behavior but to our surprise this was a debate which is continuing from the past by nature on nurture whether it is the nature which makes somebody or is the nurture of what they are bringing but what we found out is that both genetics nature and nurture both probably combined and that is where psychology steps in with biology probably define the framework for circuitry so it as it is shown here

(Refer Slide Time: 03:23)



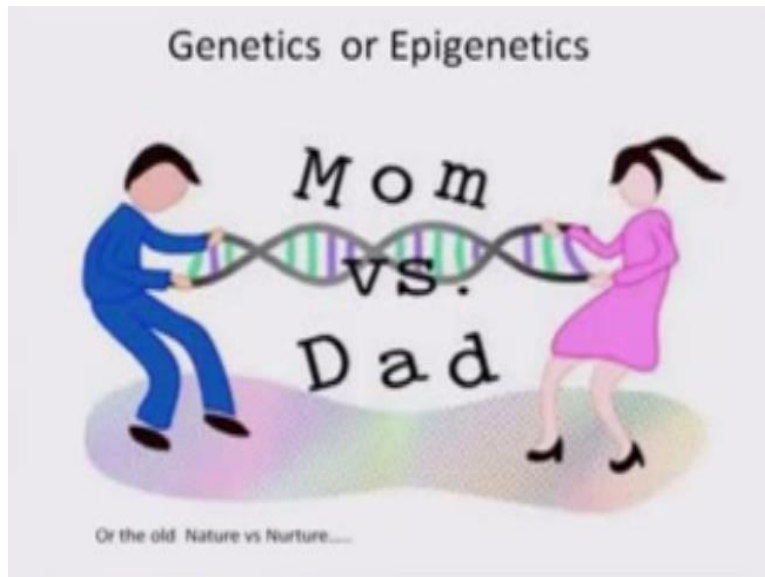
The book that is been anxious low nursing mother becomes an anxious adult and pup that is very relaxed hi nursing mother becomes a relaxed adult both

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The step in neurology cannot explain everything it has to interface

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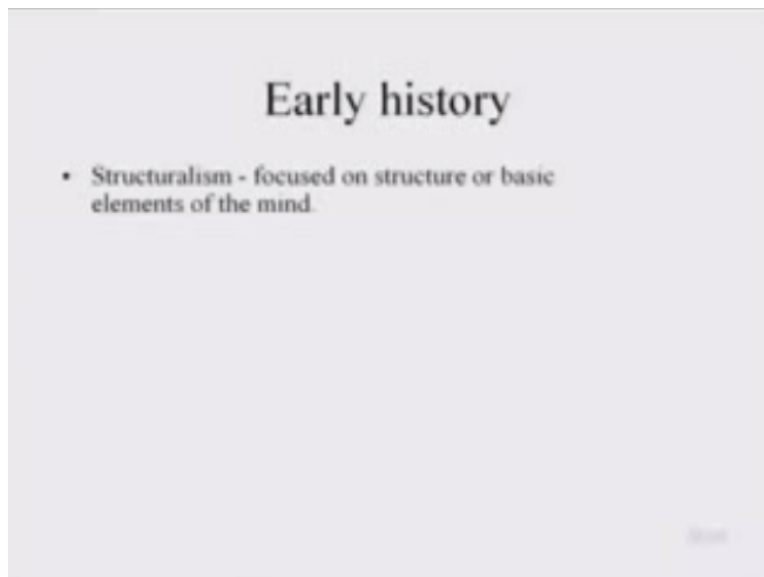


With what we call a pigeon ethics it is old debate but now probably after a full circle both are coming to sort of collaboration the people are born with genetics that temperament the predispositions genetics with their own unique set of potentialities but it is the

upbringing an upbringing or the sense of when you are not child right from the moment you're conceived in the womb that mothers the environment of mother's womb.

The exposure to toxins this trust level of mothers and all that undergoes which brings in a chemical change effects how your 10 to the power 10 neurons are going to grow and how are they going to wire together how are they going to make connections which will form your unique behavior pattern and that probably is temperament so brief look at psychology before we move on to psychiatry from the next week would be worthwhile so

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These are the some of the school's structuralism focus on the structure of basic elements of mind

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## Early history

- Structuralism - focused on structure or basic elements of the mind.
- Functionalism- William James ... still influential

Slide 1

Functionalism William James is the most famous psychologist is still influencing psychology get stalled

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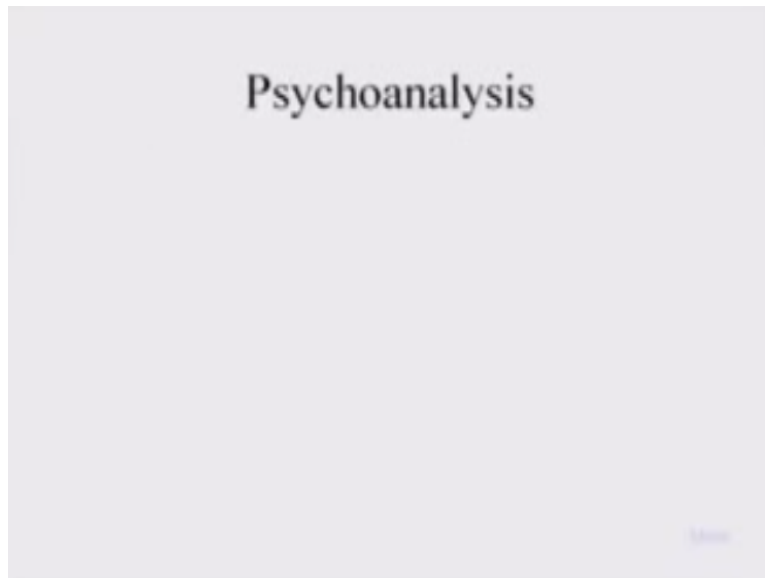
## Early history

- Structuralism - focused on structure or basic elements of the mind.
- Functionalism- William James ... still influential
- Gestalt – sensation and perception ... part of cognitive psychology

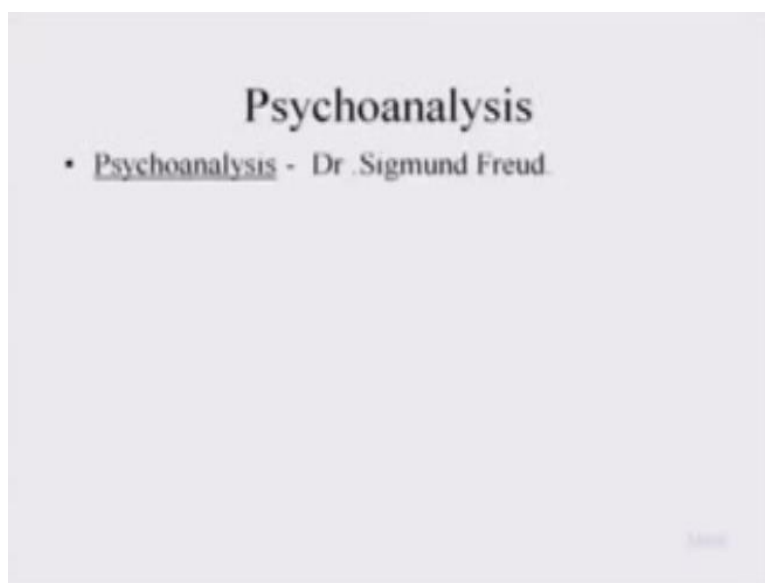
Slide 2

As I said I do not remember I showed you that picture in the last few lectures well if you get if there is a gap in for information the brain tends to Bridget through its internal generators stimuli to make a full picture is a part

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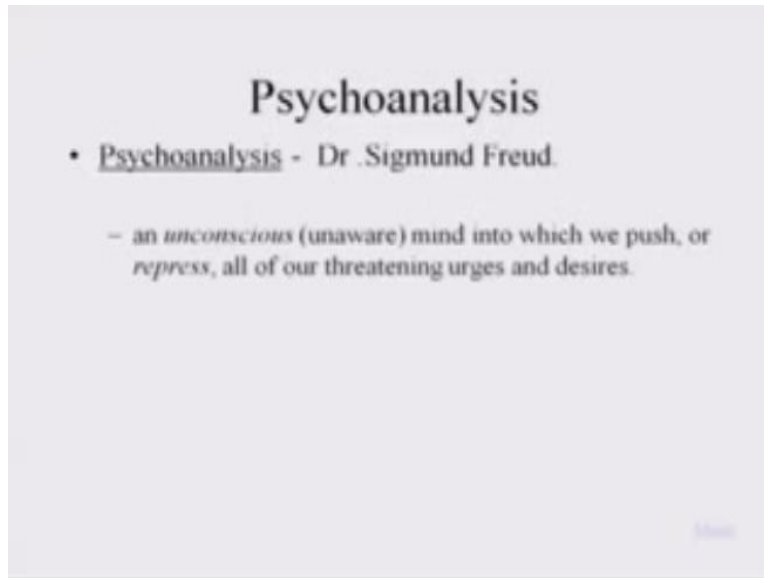


Of cognitive psychology but probably the most famous of psychologies was Dr. Sigmund  
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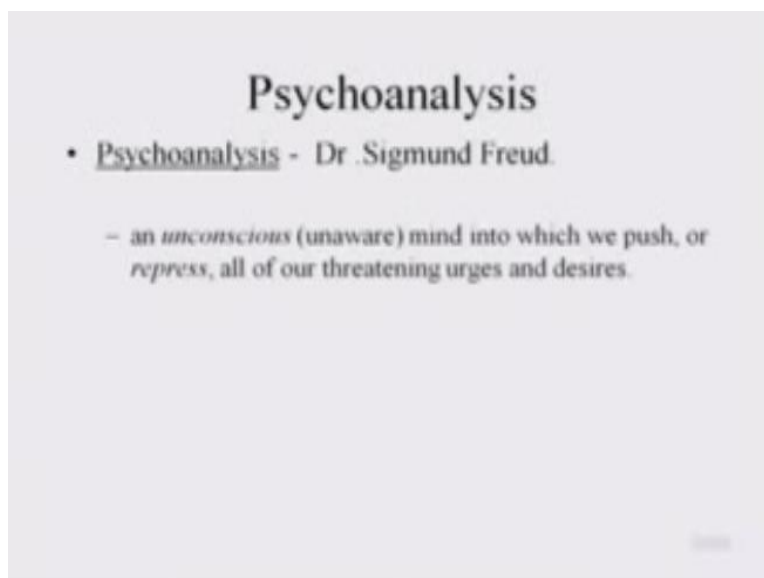


Fraud you almost thought of revolution into the way and he was the man  
(Refer Slide Time: 05:27)



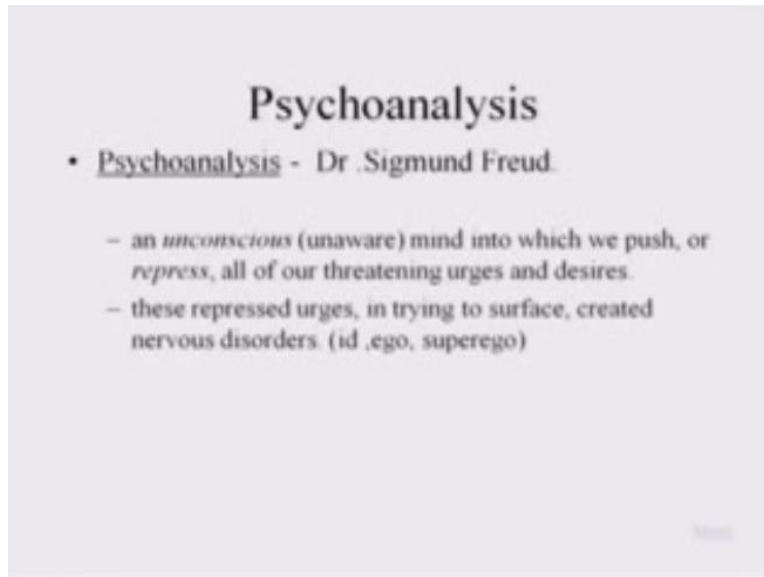
Who introduced unconscious mind he the whole psychoanalysis went out of fashion or other went under modification but as neurology and neurophysiology again bringing back there is a possibility that he may have really been telling the truth may not be for full truth he said unconscious mind it is very push or repressed

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All over threatening charges

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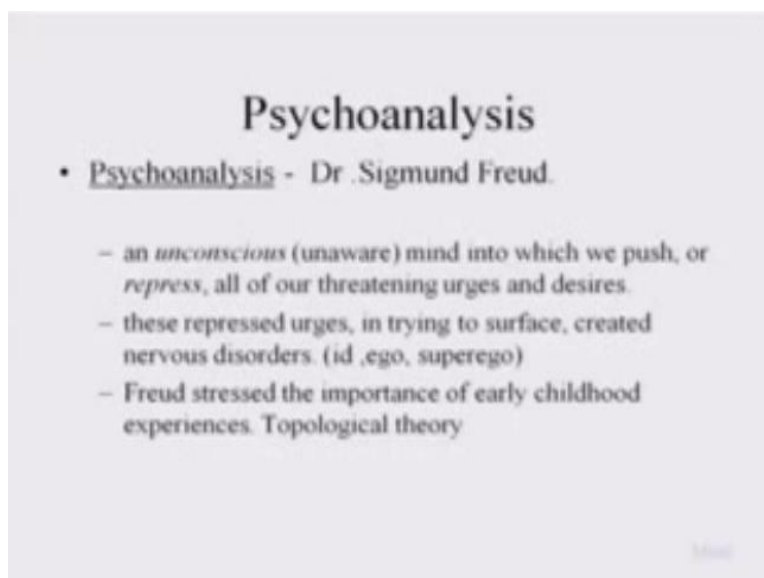


**Psychoanalysis**

- Psychoanalysis - Dr .Sigmund Freud.
  - an *unconscious* (unaware) mind into which we push, or *repress*, all of our threatening urges and desires.
  - these repressed urges, in trying to surface, created nervous disorders. (id ,ego, superego)

And these are just when they come out they create nervous disorders he gave a structure of the brain called of mind ego super-ego remember this is talking about mind not really the anatomical structure of the brain

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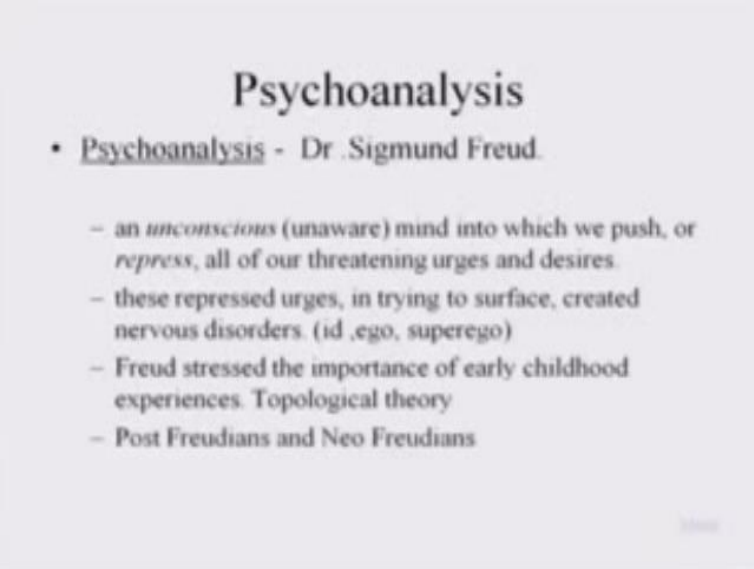


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  - Freud stressed the importance of early childhood experiences. Topological theory

He says the importance of early childhood experiences which a genetic talking about these days

(Refer Slide Time 06:14)



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  - Freud stressed the importance of early childhood experiences. Topological theory
  - Post Freudians and Neo Freudians

Slide 10

And after that have been posted for audience and they have been your audience

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**Behaviorism**

Slide 11

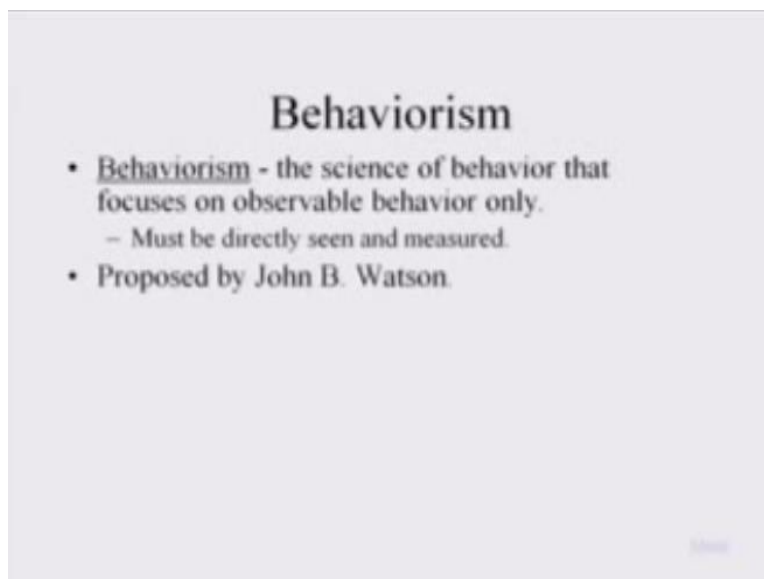
Psychoanalysis is no more used in therapy on day today but various versions called psychodynamic theories they have really influenced the with psychotherapy is done and actually froze pushed or behaviorism

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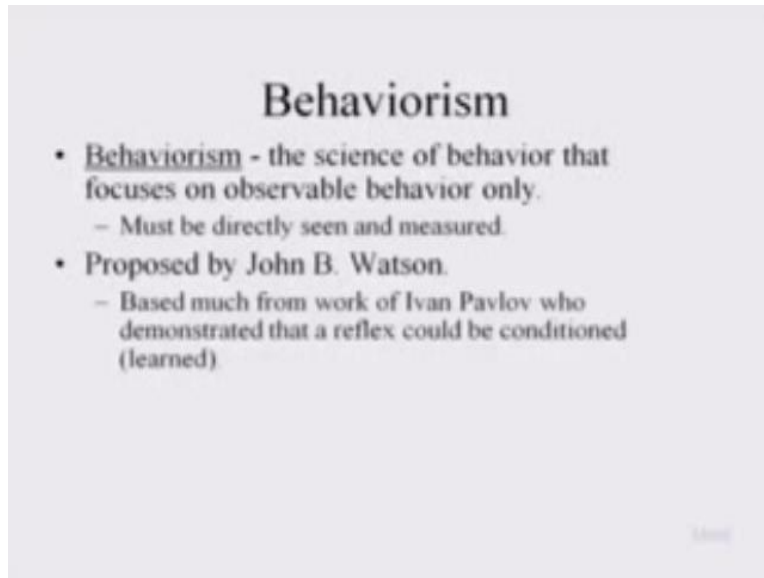
The signs of behavior that focuses on observable behavior started from power low and then to Skinner

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They and Watson

(Refer Slide Time: 06:46)



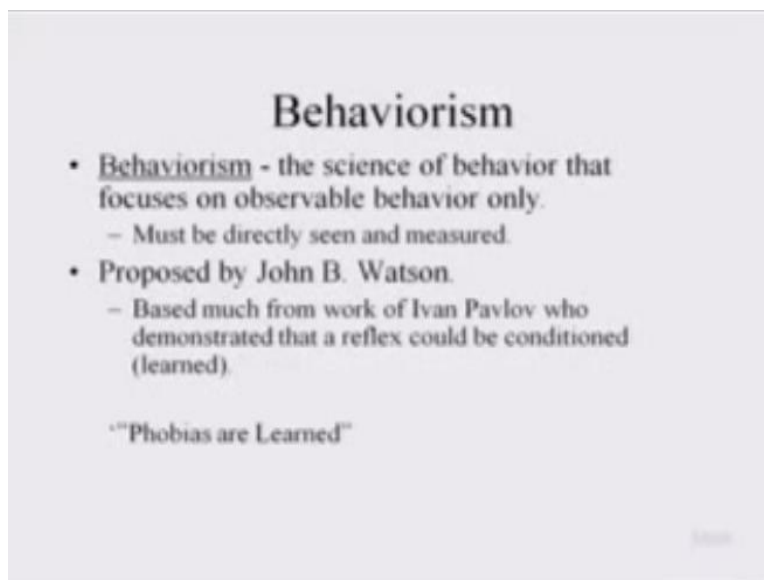
**Behaviorism**

- Behaviorism - the science of behavior that focuses on observable behavior only.
  - Must be directly seen and measured.
- Proposed by John B. Watson.
  - Based much from work of Ivan Pavlov who demonstrated that a reflex could be conditioned (learned).

Slide 1

And David very clear that

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**Behaviorism**

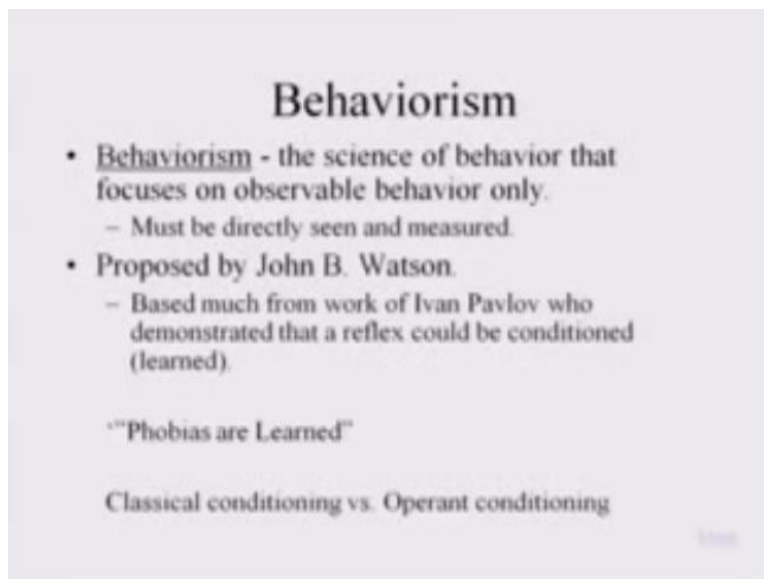
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“Phobias are Learned”

Slide 2

All this what we do is learn it is not happy from unconscious is not happening for many of the press there it is not happening on its own it is the learned behavior which we exhibit every time we do something

(Refer Slide Time: 07:02)



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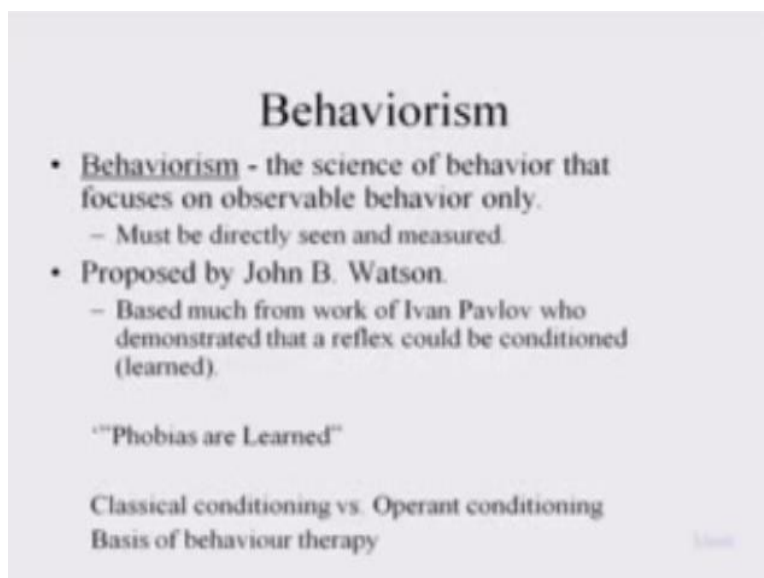
“Phobias are Learned”

Classical conditioning vs. Operant conditioning

Slide 1

And we all know classical conditioning versus operant conditioning

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**Behaviorism**

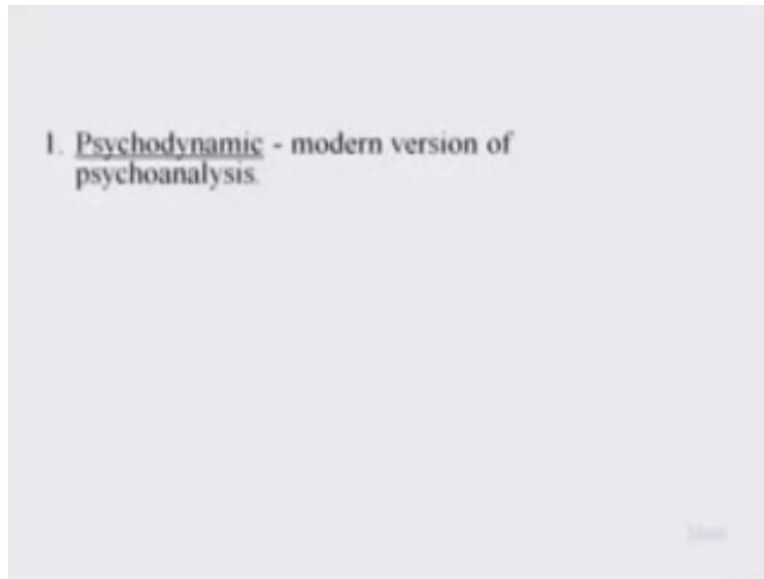
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“Phobias are Learned”

Classical conditioning vs. Operant conditioning  
Basis of behaviour therapy

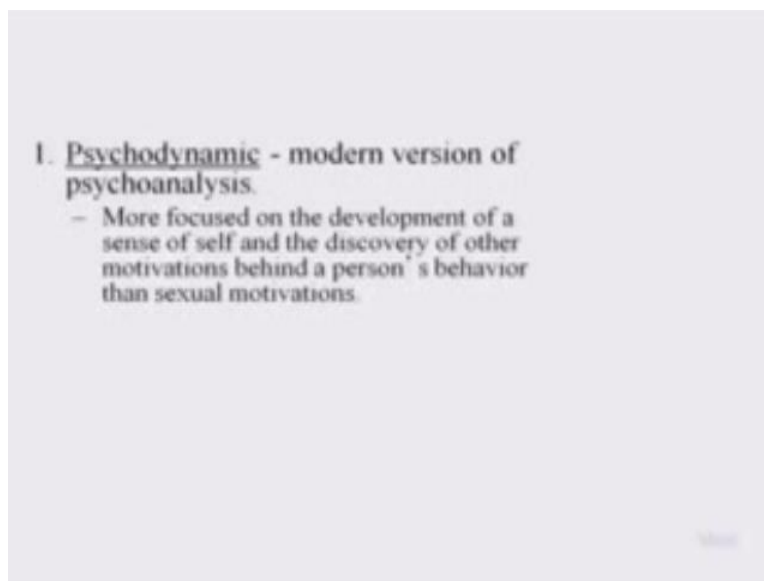
Slide 1

This is the basis of  
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Behavior therapy which is used for psychodynamic as I said is a modern version of

(Refer Slide Time 07:14)



Psychoanalysis be able  
(Refer Slide Time 07:16)

1. Psychodynamic - modern version of psychoanalysis.
  - More focused on the development of a sense of self and the discovery of other motivations behind a person's behavior than sexual motivations.
2. Behavioral perspective – B. F. Skinner studied operant conditioning of voluntary behavior.

Perspective use the behavior therapy some of them are like exposure response prevention and desensitization especially  
(Refer Slide Time: 07:24)

1. Psychodynamic - modern version of psychoanalysis.
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  - Behaviorism became a major force in the twentieth century.

In 4 BR the anxieties



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1. Psychodynamic - modern version of psychoanalysis.

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2. Behavioral perspective – B. F. Skinner studied operant conditioning of voluntary behavior.

- Behaviorism became a major force in the twentieth century.
- Skinner introduced the concept of reinforcement to behaviorism.



BF Skinner one of the most prominent psychologist and then the third revolution came was a

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3. Humanistic perspective




Humanistic perspective colleges Maslow they

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3. Humanistic perspective

- Carl Rogers
- Abraham Maslow
- Emphasized the human potential, the ability of each person to become the best person he or she could be.
  - Self-actualization - achieving one's full potential or actual self.
- Unconditional love
- Dignity

Concepts used in therapy



Source:

Emphasize that human being has a certain potential and there's the ability of human being to self-actualize unconditional love dignity they are the concept which are using human humanistic based therapies but they are general principles which helped have been adopted by more or less other schools also there is a bio psychological perspective with tribute human

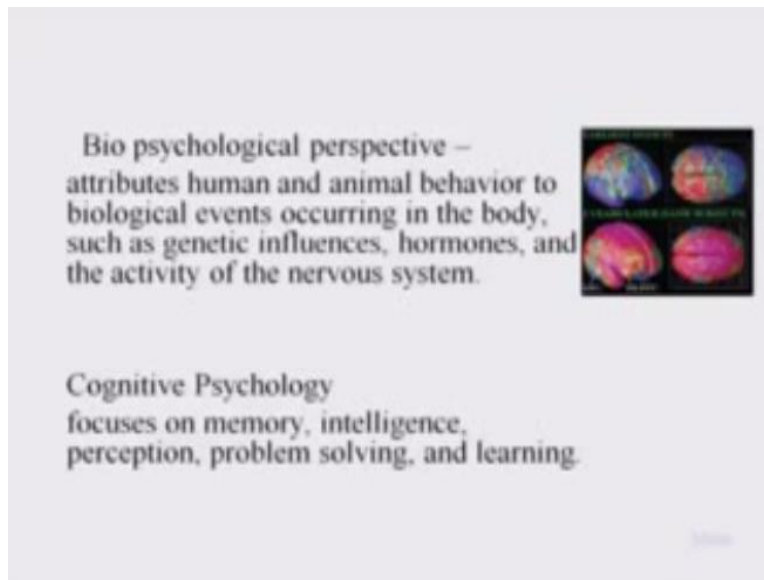
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Bio psychological perspective –  
attributes human and animal behavior to  
biological events occurring in the body,  
such as genetic influences, hormones, and  
the activity of the nervous system.

Source:

Animal behavior to biological events in the body that genetic influences cognitive psychology is the revolution which

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Is still on which focuses on basically cognition the memory the intelligence the perception problem solving learning all the conscious aspects or the partially conscious aspect which are broadly can be broader thinking and it says that it is a lot of thinking can go in altering the human behavior which is in direct contrast to watford was saying that all these unconscious and it is all pushing from within the RJ's and emotions so fraud whereas he gave more importance to emotions and the dentist cognitive psychology is more oriented towards the and the conscious aspect of human behavior with truth may lie in between or somewhere else so where is the interface with psychiatry

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## Interface

- Psychological assessment
- Theoretical understanding
- Concepts and frame for further research even in Neurosciences.

Interfaces with psychological assessment with political understanding of behavior and the conception frame for further research in neurosciences

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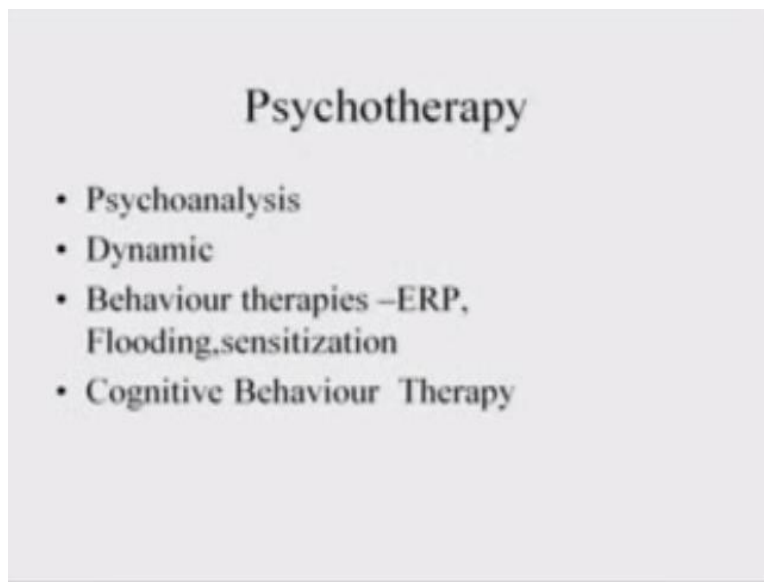
## Psychotherapy

- Psychoanalysis
- Dynamic
- Behaviour therapies –ERP, Flooding, sensitization
- Cognitive Behaviour Therapy

Psychotherapy is alternative modality for some of the illnesses which we are going to discuss in future beyond the so it is normally Carter talking cure was not exactly talking cure only some of the methods used talking less of them require a lot of training

psychoanalysis has perpetrated by fraud was a very, very long process where the person was allowed to free-associate bring out all the memories and thoughts from within the head the dynamic therapy were shorter

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Versions which were brought out on the places of defense mechanisms which fraud proposed defense mechanism are the processes in the brain which brain uses to alter the threatening stimuli what is not acceptable to brain and give it to different shape like humor is considered to be one of the major differences repression is one of the that where you push your threatening stimuli or what your mind is not accepting to the unconscious mind the at so there the many of them so they form the basis of all the unconscious processing so based on that shorter versions of psychodynamic therapies behavioral therapies are the one which are based on all

(Refer Slide Time: 10:39)

## Psychotherapy

- Psychoanalysis
- Dynamic
- Behaviour therapies –ERP, Flooding, sensitization
- Cognitive Behaviour Therapy

The Skinner proposed exposure response prevention flooding sensitization these are used a lot these days and anxiety disorders where maybe somebody just to give an example if somebody's he is a nice table as any object also going on a height and get into a panic Syrian society and in the process starts avoiding it or even thinking about it gives the sort of panic attack expose the response prevention.

Would make a hierarchical list of situations where this fear comes expose the person to those situation and avoid the usual response of running of it helped him to stop to tolerate and go through that anxiety and repeated exposure this exactly starts decreasing which can make the person confident in overcoming that fear going to be a trapeze again was is a model of therapy where the person is trained to alter his behavior through his thought we all magnified.

Thought we all use irrational we minimize something we magnify something with it's a normal human process for some people their this cognitive distortions becomes more troublesome it is actually is almost creating sort of illness cognitive behavior therapy is very useful in depression and other personality disorders so I will end with this with just to sum up in this whole first module is now we know that brain is almost like a parallel modular structure parallel processing is going on sat right from the diamond district is

done in the warm it the electrochemical activity continues still the brain keeps firing in the process creating certain files certain oscillations in the brain through the summation of inhibitory.

And stimulatory postsynaptic potentials and activity of the neurons these isolation this electrical activity is immediate between the neurons through neurotransmitters the levels of which determine the receptor level and the levels of which also determine the behavior because alteration in Neuro chemistry leads to different behaviors.

And be able aberration how psychiatry I treat medication is by altering this new transmitter levels will discuss it in future lectures but the behavior largely is happening a lot of it is kept out of your conscious mind and unconscious mind processes all the information creating a composite picture uniting all the various sensations into your mind and presenting to your conscious mind composite frame of reality through which the house into the brain decide whether to act or two more thought their Armada neurons.

In the brain which help us understand the feeling and the thought of the other person not exactly reading the thought but understanding what the other person is meaning or feeling this gives us a frame to interact socially we have developed technology through which we can either look into the areas by providing appropriate task into the areas where the brain is which area of brain is specialized for what we know a little bit but research is on and tell us more and more we may not know the court process of the brain is still because there's a lot of mathematics and physics of the brain.

Which have not discussed here the court process still have to be discovered but for clinical purposes and research purposes by providing appropriate frame of tasks from psychology which we have derived from psychology we give the task and then measure EG or MRI or see the behavioral output so this is how broadly the whatever you have tried to cover is not comprehensive but I am sure it will give you a gross idea of what is happening so from next module for next week we will talk about the classification and the mental state examination in psychiatry thank you.

