Classic studies: Robber’s Cave and the jigsaw puzzle – (p.6)

Note: *make sure you read over these classic studies before exams*

Basic Summary of main conclusions and observations

1. **Description** – The researchers observed the boys’ behaviours under certain conditions.

2. **Tentative understanding** – the believed competition would cause intergroup hostility and that co-operation would reduce it

3. **Prediction** – To test this understanding, they believed that competition would create hostility between the Eagles and the Rattlers and that co-operation would reduce this conflict.

4. **Influence** – the researchers controlled the camp setting by first pitting the Eagles and Rattlers against one another in contests, and then by arranging situations that forced the groups to co-operate.

5. **Application** – The prediction of the research was correct; the researchers now had a scientific basis for assessing what might work to reduce racial hostility between newly integrated schools. They were then able to apply their knowledge successfully in the jigsaw programme.

**Jigsaw programme summary** – This involves creating multi-ethnic groups, of about 5 or 6 children who have to prepare for an upcoming test. Within each group, each child is given a piece of the total knowledge to be learned. To be able to pass the test, each group has to fit all their knowledge together, like a jigsaw puzzle. Each child in the group must work together to teach each other their piece of knowledge.

**Result** – children’s liking for one another generally increases whilst their prejudices decrease and self-esteem and school achievement improve.
- Although committed to studying behaviour objectively, psychologists recognise our experience of the world is subjective.
- Behaviour is determined by multiple causal factors nature and nurture and physiological factors that include our thoughts and motives.
- Behaviour is a means of adapting to environmental demands; capacities have evolved during each species’ evolution as they facilitated adaption and survival
- Behavioural and cognitive processes are affected by the social and cultural environments in which we develop and live.

**Using levels of analysis to integrate the Perspectives**

**Example:** Understanding depression: When normal emotions such as sadness, grief or the blues, feeling homesick or lonely become persistent and occur over long periods of time accompanied by thoughts of hopelessness and the inability to experience pleasure we term this clinical depression.

On a biological analysis there are certain factors which predispose some people towards developing depression.

Biochemical factors also play a role in depression. Neurotransmitters are chemicals which transmit signals between nerve cells within the brain. In many depressed people, certain neurotransmitters do not function properly. Anti-depressant drugs restore neurotransmitter activity to a normal level.

From an evolutionary perspective some theorists view depression as an exaggerated form of the defence against an environmental-stressor as part of an adaptive genetically based withdrawal process.

On a psychological level: depression is associated with a thinking style where the person interprets things pessimistically. Depressive people tend to blame themselves often, take little credit for good things and view the future as bleak, as well as being overly sensitive about how people evaluate them.

Many Psychodynamic theorists believe some personality patterns are more prone to depression than others.

At an environmental level: Behaviourists believe depression is a reaction to a non-rewarding environment. Traumas and abusive family environments increase the risk of depression later in life.
Chapter Three: Genes, Environment and Behaviour

GENETIC INFLUENCE ON BEHAVIOUR

An important distinction has been made between genotypes, the specific make-up of an individual, and phenotypes, the individual’s observable characteristics. Genes direct the process of development by programming the formation of protein molecules which can vary in an infinite fashion. Some of the genes’ directives are used on one occasion, some on another. Some are never used at all due to either being contradicted by other genetic directives or because the environment never calls them forth. Genotype is present from conception, but phenotype can be affected both by other genes and by the environment.

CHROMOSOMES AND GENES

The egg cell from the mother and the sperm cell from the father carry within their nuclei the material of heredity in the form of rod-like units called chromosomes. A chromosome is a double-stranded and tightly coiled molecule of deoxyribonucleic acid (DNA). All the information of heredity is encoded in the combinations of four chemical bases: adenine, thymine, guanine and cytosine that occur throughout the chromosome. Within each DNA molecule, the sequence of the four letters of the DNA alphabet – A, T, G, C – creates the specific commands for each feature and function of your body.

The DNA portion of the chromosome carries the genes. Each carries the specific ATGC code for manufacturing specific proteins as well as the codes for when and where in your body they will be made. These proteins take many forms and functions and they underlie every bodily structure and chemical process.

Every cell with a nucleus in the body has 46 chromosomes, except for the sex cell which has 23. At conception, the 23 chromosomes from each sex cell (egg and sperm) combined to form a new cell with 46 chromosomes, the zygote. The genes received from the parents occur in matching pairs. Every nucleus cell in the body contains the genetic code for your entire body.

Dominant, Recessive and Polygenic Effects

Alternative forms of a gene that produce different characteristics are called alleles. Thus, there is alleles that produce brown eyes and one that produces green. However, genotypes and phenotypes are not identical because some genes produce are dominant and some are recessive. If a gene in the pair received from both the mother and father then the gene is dominant, meaning that a particular characteristic that it controls will be displayed. A gene received from just one parent is recessive and therefore the characteristic will not show up unless the partner gene inherited from the other parent is also recessive.

Polygenic transmission is when a number of genes pairs combine their influences to create a single phenotypic trait. This complicates the straight forward picture that would occur if all characteristics were determined by one pair of genes, as well as magnifies the number of possible variations in a trait that can occur.

A Genetic Map of the Brain
The mouse’s brain is 99 per cent identical to the human brain and is therefore often used to study human brain function. Almost every cell in a mouse’s body contains the full genotype. What a particular cell will become and how it will function is determined by which genes are switched on. Knowing where and how genes are switched on in the brain will provide new insights on both normal brain functions and diseases of the brain, and may help with the invention of new treatments and prevention techniques.

BEHAVIOURAL GENETICS

Looking at behavioural genetics involves understanding how heredity and environmental factors influence psychological characteristics. Behavioural genetics tries to determine the relative influence of genetic and environmental factors in accounting for individual differences in behaviour.

The degree of relatedness to one another tells us how genetically similar people are. Children get half of their genetic material from each parent, meaning that the probability of sharing any gene with a parent is 50%. The chances of sharing a gene with a sibling is also 50% because you come from the same parents and, in identical twins, the probability is 100%. The probability of sharing a gene with a grandparent is 25% because they passed half their genes onto one of your parents, who passed half onto you. An adopted child differs genetically from their adoptive parents and the same can be said for unrelated people. If a character has a higher co-occurrence in people who are more closely related to one another, this points to a possible genetic contribution, particularly if the people lived in different environments.

Adoption and Twin Studies

The adoptive study is a study used to research the influence of genetic factors. This study involved people who were adopted early in life being compared on some characteristics with both their biological parents, with whom they share genetic endowment, and with their adoptive parents, with whom they share no genes. If adopted people are more similar to their real parents then a genetic influence on the traits is indicated. If it is the other way around, then this shows an influence of environmental factors.

Twin studies compare the trait similarities in identical and fraternal twins. Identical twins develop from the same egg, while fraternal twins develop from two separate eggs. Twins are usually raised in the same family environment and we can therefore compare co-occurrence rates, or trait similarity, in samples of identical and fraternal twins.

It is assumed that if identical twins are more similar in a specific characteristic then a genetic factor is likely to be involved. A possible draw-back, however, is the fact that identical twins may be treated more similarly by others due to the fact that they look the same, and this could result in them behaving more similarly. A way of eliminating this draw-back would be to study identical and fraternal twins that have been raised in different environments.

It was found that many psychological characteristics, including intelligence, personality traits and certain disorders, have notable genetic contribution. Adopted children are found to be more similar to their biological parents on these measures, and identical twins tend to be more similar to one another than fraternal twins, even if they have been separated since birth. On the other hand,
try to get them to calm down and sit still, opposing the nature tendencies of the child. Thus, the environment may either support or discourage the expression of a person’s genotype.

We are not simply passive responders to whatever environment happens to come our way. We actively seek out certain environments and avoid others. Genetically based traits may therefore influence the environments that we select and these environments are likely to be compatible with our traits. For example, a large aggressive boy may be attracted to playing competitive physical sports. These varied self-selected environments may have a very different effect on later development. It can then be said that how people develop is influenced by both biology and experience.

GENETIC MANIPULATION AND CONTROL

Studies have shown how closely we as humans are related to other living creatures. For example, both humans and insects have eyes, although these eyes differ in in their structural characteristics. A number of years ago, geneticists identified a human gene called Pax6 that is responsible for eye development. If this human Pax6 gene is not switched on at a critical time in development then people do not develop eyes. If we placed this gene along a fruit fly’s body, small multifaceted eyes, just like the eyes of the insect itself, would appear on the fruit fly’s body. This demonstrates how the biological environment in which a gene resides determines its phenotypic expression.

In another gene-manipulation approach, researches used certain enzymes (proteins that create chemical reactions) to cut the long threadlike molecules of DNA into pieces, combine it with the DNA from another organism and insert it into the host organism such as a bacterium. Inside the host the DNA continues to divide and produce many copies of itself.

Gene-manipulation by psychologists has focused on processes such as learning, memory, emotion and motivation. One method done with animal is to alter a specific gene in a way that prevents it from carrying out its normal function, called the knockout procedure. The knockout procedure refers to the particular function of the gene being knocked out or eliminated. Researches have also made use of the knock-in procedure, where a new gene is inserted into an animal during the embryonic stage and the impact on its behaviour is studied. Gene-modification techniques may one day enable us to alter genes that contribute to psychological disorders.

EVOLUTION AND BEHAVIOUR: INFLUENCES FROM THE DISTANT PAST

The vast majority (99.9%) of genes we share with all other humans creates the “human nature” that makes us like other people. We enter the world with innate biologically based mechanisms that enable and predispose us to perceive, behave, feel and think in certain ways. These inborn capacities allow us to learn, to remember, to speak a language and to perceive certain aspects of our environment at birth, to respond with universal emotions, and to bond with other humans. These can be viewed as a product of an evolutionary process. Evolutionary theorists also believe that factors such as aggression, sex roles, protecting kin, etc. are influenced by biological mechanisms that have evolved as we as human beings evolved.

EVOLUTION OF ADAPTIVE MECHANISMS
Reinforcement: a response is strengthened by an outcome that follows it. 'Strengthened usually indicates an increase in frequency of a response.

Punishment: occurs when a response is weakened by outcomes that follow it.

- He saw operant conditioning as a type of natural selection that facilitates an organism’s personal adaption to the environment. Organisms learn to increase behaviours typically followed by favourable consequences, and decrease those that are followed by unfavourable consequences.

- Skinner’s analysis involves 3 kinds of events:
  1. **Antecedents** – stimuli present before a behaviour occurs (IF)
  2. **Behaviours** that the organism emits (AND)
  3. **Consequences** that follow the behaviour (THEN)

  The ABC’s of operant conditioning

- The relationship between the behaviour and the consequence is called a **contingency**.

**Distinguishing Operant from Classical Conditioning**

1. In classical conditioning, the response doesn’t change; it is just made in a new context and linked to a new stimulus. Whereas in operant, new behaviours are learned in response to particular stimuli in the environment.

2. Different events involved. Classical involves stimuli and responses. Operant involves a discriminative stimulus, a response and a reinforcing/punishing event.


- NB to understand that many learning situations involve both.

**Antecedent Conditions and Consequences**

- Antecedent (discriminative stimulus) is signal that a particular consequence will now produce certain consequences. Consequences of behaviour will either reinforce or reduce it.

- In operant conditioning, the antecedent may be a general situation or specific stimulus

- Eg. sight of teacher raising chalk to chalkboard would be a discriminative stimulus to signal that it’s time for students to put their fingers in their ears.

**Positive Reinforcement**

- Occurs when a response is strengthened by the subsequent presentation of a stimulus. eg. being awarded for good test marks, a child will make the effort to work harder to get more good marks in future.

- The stimulus that follows and strengthens the response is called a **positive reinforcer**.

- Behaviour increases when you are positively reinforced for it.

- **Primary reinforcers** – stimuli (eg. food and water) that an organism naturally finds reinforcing because they satisfy biological needs.
Automatic processing: Encoding that occurs without intention and requires minimal attention

Levels of Processing: When deeper is better:

- The deeper we process information, the better we will remember it.
- Structural encoding involves shallow processing, while phonological encoding requires intermediate processing. Semantic processing requires the deepest processing.

Exposure and Rehearsal:

- Exposure to a stimulus without focussing on it represents shallow processing.
- Maintenance Rehearsal: Simple, rote repetition
- Elaborative rehearsal: focussing on the meaning of the information or expanding on it in some way (More effective in transferring into LTM)

Organisation and Imagery:

- Hierarchies and chunking:
  1. Memory is enhanced by associations between concepts. A hierarchy enhances our understanding of how individual items are related (visual imagery can be used as a supplementary memory code).
  2. Chunking involves combining individual units into larger units of meaning (telephone numbers are often encoded in chunks).
- Visual Imagery:
  1. Dual coding theory: encoding information using both visual and verbal codes enhances memory because the odds improve that at least one of the codes will be available later to support recall.
  2. Method of loci: A mnemonic that associates information with mental images of physical locations.
- The Enactment Effect: When an action is carried out in response to a command, it is remembered better, largely due to the fact that it is encoded in several different formats.

How Prior Knowledge Shapes Encoding:

- Schemas: A mental framework representing an organised pattern of thought about some aspect of the world. Expertise involves the creation of schemas about certain topics.

Storage: Retaining Information

Memory as a network:

- Associative network: A massive network of associated ideas and concepts
- Priming: The activation of one concept (or unit of information) by another
- Neural network model: each memory is represented by a unique pattern of interconnected and simultaneously activated nodes (also known as connectionist and parallel distributed processing models).

Types of LTM:
Law enforcement officials, mental health workers and legal professionals are now paying more attention to how children’s admissions of abuse are elicited. Also training programs are helping to minimise the use of suggestive interviewing techniques. The goal is not to discredit children’s allegations, but rather to minimise the risk of false allegations ensuring that justice is done.

A woman from Illinois sued 2 psychiatrists and their hospital: she alleged that they used hypnosis, drugs and other treatments to lead her to develop false memories of having been a high priestess in a sexually abusive cult. However, years earlier, there was a wave of cases where psychotherapy led to the remembering of forgotten childhood sexual abuse and led to patients suing parents and other family members for the alleged trauma.

**Recovered or false memory controversy:**

- Can someone forget childhood sexual abuse and recover the memory as an adult?
- Trauma can lead to memory loss, but this is usually for a short time with memory returning over weeks, months or a few years.
- People are susceptible to developing false memories of non-existent childhood events.
- Conclusion that the accuracy of recovered memories should not be taken at face value.
- If the memory has been forgotten, what is the cause?
- Freud’s concept of repression: a psychological mechanism that pushes trauma into the unconscious. → researches have difficulty demonstrating this experimentally.
- Recovered memories of sexual abuse cannot be taken as evidence of repression → may have occurred as a result of ‘ordinary’ forgetting where the victim avoided thinking about or reinterpreted the trauma in a way that was less upsetting. In a study, nearly 40% of women sexually abused in childhood had no memory of the event.
- Controversy: Memories are hard to validate and experimental work is ethically sensitive.
- Concern that in recovered memory therapy, therapists suggest the possibility of abuse to patients who are emotionally vulnerable. However, therapists argue that ‘suggestion’ is necessary to access repressed memories. Argument that these suggestive techniques cause false memories.
- Underlying causes of recovered memories:
  - PTSD victims are more suggestible than others but the possibility that any exposure to trauma increased susceptibility to suggestibility
  - People who’d reported recovered memories around sexual abuse didn’t have greater difficulty retrieving autobiographical memories
  - People who consider themselves likely to undergo therapy are more likely to believe that they were involved in traumatic childhood events for which they have no memory.
- “Recovered memories may at times be fictitious and may at other times be authentic”.

**False Confessions**

Examples in history that support the idea that behaviour can be influenced in response to requests of authority figures.

Saul Kassin has researched this idea and divided false confessions into three main types:

1. Voluntary false confession: most likely in high profile cases and confessions are usually made to gain attention or for some pathological reason. Eg: murder of actress Elizabeth Short to which approx 50 people confessed.
2. Compliant false confessions: confessions are made in order for the ordeal of being interrogated to end, or in order to get something the interviewee requires such as sleep, food, or even an end to physical punishment. Eg: Birmingham Six - six Irish men found guilty of bombing a public house had their convictions overturned because their confessions were of this variety. The longer the interrogations last, the more likely this sort of confession is going to occur.

3. Internalised false confessions: great interest to psychologists. Person confesses to a crime that they did not commit and truly believe that they have committed it. Eg: 14 year old Michael Crowe had been led to believe by the police that there was a great deal of evidence against him regarding the stabbing of his sister. This brought him to a point of admitting to the crime although he had no idea how he had done it. He came to believe that he was suffering from a split personality and his ‘bad side’ had killed his sister while the ‘good side’ was suppressing the truth of the situation from him. Charges were dropped when the real perpetrator was arrested.

→ Studies have found that the use of manipulated video evidence can support the idea of internalised false confessions. It is legal for American police to show suspects real (or not) incriminating evidence in order to encourage suspects to confess. In a study where people were asked to complete a computer based exam, they were accused of cheating (although none of them had). They were told that there was video footage of them cheating and some of the participants were shown manipulated footage. Those who were shown the footage were more likely to confess to the crime and internalise the confession and actually believe that they had cheated than the participants who had only been told about the evidence. This demonstrates that it is possible to induce internalised false confessions.

CULTURE AND MEMORY CONSTRUCTION

Culture and memory have a reciprocal relation: cultural survival depends on the transmission of knowledge and customs from one generation to the next, and without our capacity to remember events/info, culture could not exist. At the same time, culture influences memory as cultural upbringing influences the schemas that we acquire and use to perceive ourselves and the world.

Eg: People in northern Europe and North America tend to view the world through a relatively individualistic lens in which self-identity is based primarily on one’s own attributes and achievements. However, in Asian, African and South American cultures, there is a more collectivistic framework in which personal identity is defined largely by ties to extended family and other social groups.

If culture influences our schemas, and schemas influence how we encode and reconstruct events, then culture may influence how we recall events.

In Qi Wang’s study of earliest memories, he found that Americans were more likely to recall events that focussed on individual experiences and self-determination (“I was doing this”). In contrast, Chinese students were more likely to recall memories involving family or neighbourhood activities (“Dad taught me this”).

Wang also found that American college students dated their earliest memory back to time when they were on average 3 yrs old. Students in China, however, dated memories back to when they were almost 4 yrs old. Although the reason isn’t clear, it may be because American students were more likely to report earliest memories of single, distinctive events that involved greater
the conditioned response but did not affect the unconditioned response. Similarly, conditioning fails to work in human patients with damage to the cerebellum.

**HOW ARE MEMORIES FORMED?**

**SYNAPTIC CHANGE AND MEMORY**

Eric Kandel studied a marine snail, Aplysia californica. It can form memories and only has about 20,000 neurons as compared with our 100 billion. This snail was able to form a simple procedural memory through classical conditioning.

Kandel traced the formation of this procedural memory to a series of biochemical events occurring between and within sensory and motor neurons. How long these last seem to determine whether they pass from short-term memories to long-term memories. So, repeated pairing of stimuli is needed in order to form a permanent response.

During conditioning process, various sensory neurons become densely packed with neurotransmitter release points, and postsynaptic motor neurons develop more receptor sites. These structural changes result in greater ease of synaptic transmission that may be a basis for memory consolidation. Some arguments state that large amounts of memory consolidation take place during REM sleep.

**LONG-TERM POTENTIATION**

Synaptic changes may be the basis for memory consolidation. Scientists try to mimic a process of long-term memory formation by stimulating specific neural pathways with rapid bursts of energy. Once this rapid stimulation ends, the neural pathway becomes stronger—synaptic connections are activated more easily— for days or even weeks. Long-term potentiation (LTP): enduring increase in synaptic strength. It has been studied most in regions of hippocampus where neurons send and receive glutamate—the most abundant neurotransmitter in the brain.

For LTP to occur, biochemical events must take place inside and between neurons. Administering drugs that inhibit these events will block LTP.

When neural pathways are stimulated, the post-synaptic neurons alter their structure so that they become more responsive to glutamate (e.g., they may change the shape of some receptor sites or number of receptor sites). This means that in future, their pre-synaptic neurons will not need to release as much glutamate in order to stimulate post-synaptic neurons. Formation of a long-term memory seems to involve long-lasting changes in synaptic efficiency that result from new or enhanced connections between pre- and post-synaptic neurons.

**LEVELS OF ANALYSIS: factors related to forgetting and memory distortion**

**Overlearning:** continued learning past the point of initial learning, and it significantly improves performance on memory tasks.

**PSYCHOLOGICAL**

- Failure to encode information (e.g., inadequate rehearsal)
- Weak retrieval cues and interference
- Mental schemas distort information
- Motivated forgetting of anxiety-arousing information
Sucking reflex

- Visual preference technique: prefer complex patterns such as faces
- Visual habituation technique: look at obj. less if exposed to it for a long time

Physical development

- Very rapid growth
- Body growth and motor development:
  - Cephalocaudal trajectory: the tendency for development to proceed in a head-to-foot direction (head is disproportionately large)
  - Proximodistal trajectory: development begins along the innermost parts of the body and continues towards the outermost parts (i.e. arms develop before the hands and fingers)
- At birth, brain weighs ±25% of its eventual adult weight
- By 6 months, the brain reaches about 50% of its adult weight
- First brain areas to mature lie deep within the brain and regulate basic survival functions (e.g. heartbeat and breathing)
- Last area to mature is the frontal lobe (highest-level cognitive functions)
- Motor dev.: occurs in an orderly sequence but the age at which abilities emerge varies

Cognitive dev.:

- Piaget’s sensorimotor stage
  - Birth – 2 years
  - Coordinate sensations and be capable with their movements & actions
  - Object permanence: obj. continues to exist even when no longer visible. Baby will reach for a visible toy but not for one that has been hidden from view while the infant watches (lacks the concept of object permanence)
    - Symbolic thought emerges
    - Obj. permanence fully mastered at 18 months: an object continues to exist in a particular place even when it is no longer visible
    - Basis for language and thought
  - Separate idea of the object from the actual object
- Findings of violation-of-expectation:
  - Stare longer at “impossible event” (think of carrot behind boards: short carrot – can’t see through gap; tall carrot – still can’t see through gap)
  - Infant may develop at least some understanding of object permanence much earlier than Piaget claimed.
- Acquires language after age 1
- Distinguish between diff. visual patterns, sounds, odours and tastes.
- Display perceptual preferences, learn through classical and operant conditioning, and have a primitive capacity for imitation.

- Accommodation: new experiences cause existing schemas (organised patterns of thoughts and actions) to change
- Assimilation: new experiences are incorporated into existing schemas
- When individuals experience negative effects of stress and simultaneously inhibit expression of emotion
- Linked to health problems, especially cancer

**Gender, culture and coping**
- Men are more likely to use problem-focused coping ('fight or flight')
- Women are more likely to use emotion-focused coping or seek social support ('tend or befriend')
- Linked to hormones as well as cultural expectations
- North Americans and Europeans favour problem-focused coping
- Asians favour emotion-focused coping and social support, and tend to avoid interpersonal conflict
- African-Americans seen to seek social support more than Caucasian-Americans

**Stress-management training**
- Three main ways to reduce stress:
  1. Change situation causing stress
  2. Modify cognitive appraisals
  3. Learn ways to control physiological arousal

**Cognitive coping skills**
- Ellis: irrational core beliefs are root of maladaptive negative feelings
- Use technique of cognitive restructuring, where we systematically detect, challenge and replace these irrational ideas
- Another technique: Self-instructional training, where people learn to talk to themselves and guide their behavior in ways that help them cope more effectively

**Relaxation Techniques**
- Relaxation is incompatible with arousal
- Somatic relaxation training = a means of voluntarily reducing or preventing high levels of arousal
  - Breathing
  - Relaxing muscles
  - Condition relaxation to the trigger word ‘relax’
  - Can be performed during stressful situation
- Cognitive relaxation = a peaceful, mind-clearing state
  - Meditation
  - Best performed in a private, quiet place

**Pain and pain management**

**Biological mechanisms**
- Pain receptors in most parts of body, impulses sent to spinal cord then brain (thalamus and then frontal lobe of cerebral cortex and limbic system)
- Pain is both sensory and emotional
Bipolar disorder

Depression is usually the dominant state and alternates with periods of mania.

Prevalence and course of mood disorder

- Women are twice as likely to experience unipolar depression.
- Depression is on the rise amongst young people.
- Initial episode lasts about ten to fifteen months without treatment and about 50 percent of the time there will be a reoccurrence of depression.

Causal factors in Mood disorders:
Rogers’s view of defences:

1. **Unconditional positive regard:**
   - Communicated when therapist shows he/she genuinely cares about and accepts client, without judgement/evaluation.
   - Therapist communicates sense of trust in client’s ability to work through problems.
   - Trust communicated in therapist’s refusal to offer advice/guidance.

2. **Empathy:**
   - Willingness and ability to view the world through client’s eyes.
   - Good therapeutic relationship: therapist comes to sense feelings and meanings experienced by client: communicates understanding to client: reflecting back to client what he/she is communicating - captures meaning and emotion involved.

3. **Genuineness**
   - Consistency between the way the therapist feels and the way he/she behaves.
   - Therapist must be open enough to express positive/negative feelings honestly.
   - Most striking demonstration of both attributes occurs when therapist can express displeasure with client’s behaviour and at the same time communicate acceptance of the client as a person.

**Theory of therapeutic processes**

- The therapist provides a supportive emotional climate for patients (clients).

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- e.g. "I feel frustrated with the way you handled that situation because I want things to work out better than that for you."

Therapists express 3 key attributes

- Creates climate where client feels accepted, understood, and free to explore basic attitudes and feelings without free of being judged / rejected.
- Client experiences courage and freedom to grow.
- Clients, who experience a constructive therapeutic relationship, exhibit: increased self-acceptance, greater self-awareness, enhanced self-reliance, increased comfort with other relationships, improved life functioning.
- Therapy most likely to be successful when therapist is perceived as: genuine, warm, empathic.

Clients play major role in determining the pace and direction of their therapy.

In comparison studies:

- Client-centred therapy was superior to no treatment.
- Comparable to other insight-oriented therapies.
- Good at treating self-esteem problems.
- Less effective than focused behavioural treatment such as systematic desensitisation.

**COGNITIVE-BEHAVIOURAL THERAPIES**

- CBT treatments use strategies to correct habitual thinking errors that underlie various types of disorders.
- Initially developed for depression, now used to treat a wide range of disorders.
- Include: Rational emotive therapy (Albert Ellis), Cognitive therapy (Aaron Beck), other systems developed by Donald Meichenbaum and Michael Mahoney.

- Clients often need help in identifying beliefs, ideas and self-statements that trigger maladaptive emotions and behaviour.

- Once identified - cognitions can be challenged and changed with practice and effort.

- Ellis and Beck most influential figures in cognitive approach to therapy.

**ELLIS'S RATIONAL-EMOTIVE THERAPY**

- Had practiced psychoanalysis but although he believed that irrational forces kept neurotics neurotic, he no longer believed they were unconscious.
- Began to attack clients' belief systems directly.
- Was able to demonstrate greater effectiveness with this new rational emotive approach than with psychoanalysis.