

Developmental Psychology

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- When 'development' term was coined it was progressive (now regressive also)

All objects change. The process by which conceived organism is turned into mature being are collectively called as growth & development. While the term growth is usually limited to changes in the quantitative aspects such as increase in height, weight, etc. The term dev. refers to overall changes that include both qualitative as well as quantitative aspects. Therefore, the term dev. carries with it a much wider & comprehensive meaning than the term growth. The term growth is a subsystem of term dev. & is a less complex process to observe & measure. Both growth & dev. imply changes in one's beh. and personality makeup. The journey of life begins with the conception in the womb of the mother. The approx. 9 month period spent in the mother's womb is called as pre natal period. A child is set to be born when foetus emerges from the internal env.

- i.e. the mother's womb & has the first contact with the external env. It marks the beginning of the post natal period & also the beg. of the computation of the chronological age.

Principles of dev.

- (i) Dev. involves changes the goal of which is the realisation of hereditary potential. Individual's attitude towards the change is influenced by his awareness of these changes & how they affect his beh.
- (ii) Early dev. is more critical than later dev. because early foundations are greatly influenced by learning and experience and if they are harmful, child's personal & social adjustments can be affected.
- (iii) Dev. comes from interaction of maturation & learning with maturation setting up the limits for the dev.
- (iv) The pattern of dev. is predictable, though this predictable pattern can be delayed or accelerated by the conditions in pre natal & post natal env.
- (v) The predictable characteristics of the dev. pattern are:
 - a) Dev. is continuous
 - b) Dev. proceeds from general to specific responses
 - c) Diff. areas develop at diff. rates
 - d) There is correlation in dev.
 - e) There is similarity in dev. patterns in all
- (vi) ~~There is~~ children & dev. happens to be cephalocaudal (head to toe) & proximodistal (centre to periphery)
- (vi) There are individual diff. in dev & these ind. diff. are partly due to hereditary factors & partly due to env. factors. This is true both for psychological as well as physical dev.

(viii) There are periods in developmental pattern & within these periods there are times of equilibrium & disequilibrium.

(ix) There are social expectations for every developmental period & these expectations are in the form of developmental tasks.

(x) Happiness varies at diff. periods in developmental pattern. The first year of life is usually the happiest & puberty is generally the most unhappiest period.

* Maturation

Q) Is maturation independent of Env.

Q) Illustrations to highlight maturation in Human Beings

Q) Relationship between Growth, Maturation & Learning

• Maturation → innately determined sequences of growth & bodily changes that are relatively independent of the influence of Env.

Evidence

⇒ Foetus in the womb of mother → preprogrammed

* If mother gets German Measles (Rubella), the dev. of foetus is affected.

• Carmichael

Research on tadpoles

Exp. Grp

Tadpoles reared
in anesthetic
solution
(PSM X)

Control grp

reared in
water
(Pre swimming movements
possible)

⇒ He was trying to study whether → swimming in tadpoles is maturational or not

• Both groups when they reached maturity → Tested for swimming ability.

• Exp. group on putting ⁱⁿ water → took 20 mins. to start swimming.

He said that swimming is maturational.

Now, control group → kept in anesthetic solution → they also took 20 mins

∴ 20 mins was for wearing away the effects of anesthetic solution & not for learning to swim

Thus, locomotion in tadpoles is maturational

* In Humans → Hopi Tribe
(Dennis & Dennis)
Quasi Experimental Study

Traditional Hopi → Infant bound to cradle board

Americanised Hopi → No such restriction

} After the end of 14 months, both kids could walk

* Effects of maturation & env. are intertwined
(Talent vs Training) ⇒ cannot be determined as results will be same

* Relationship bet Growth, Maturation & Learning

Provide the child insights as per maturational readiness

Maturation :- reached the point of ripeness
(when growth is complete)

Learning :- intervene / provide training
when maturation has happened
(at that specific point)

*Developmental Tasks

↳ Expectations set for kids on the basis of their age (by the society)

If you meet those expectations → society will reinforce otherwise punish.

eg. Dev. Tasks for 2 yrs age, 4 years age (both mental & physical)

• Havighurst has defined developmental task as a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to happiness & to success with later tasks while failure leads to unhappiness or difficulties with later tasks. Every cultural group expects its members to master certain skills & acquire approved patterns of beh. at various stages during the lifespan. These can be called as developmental tasks. Some tasks arise mainly as a result of physical maturation such as learning to walk. Others develop primarily for cultural pressures of society eg. learning to read & still others grow out of personal values & aspirations of the individual such as choosing & preparing for a vocation. In most cases however, developmental tasks arise from 3 forces working together.

*Significance or Purpose of Developmental Tasks

- (i) They serve as guidelines that enable the individuals to know what society expects of them at given ages.
- (ii) Developmental tasks motivate the individuals to do what social group expects them to do at certain ages during their life.
- (iii) Developmental tasks motivate individual to understand what lies ahead & what they are expected to do when they reach next stage of dev.
- (iv) Adjustments to a new situation are always difficult & are always accompanied by emotional tension. However,

- much of this stress can be eliminated if the individuals are aware of what will come next & they prepare for it.

Developmental tasks play an imp. role in setting guidelines for normal dev. & anything that interferes with their mastery can be regarded as a potential hazard.

There are 3 common potential hazards related to developmental tasks:

(i) Inappropriate expectations → Either the individual himself or the social group may expect the dev. of beh. that is impossible at that time because of psychological & physical limitations.

(ii) Bypassing the stage of dev. as a result of failure to master the task for that stage of dev.

(iii) The crisis individuals experience when they pass from one stage to another.

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Even though an individual may have mastered the developmental task of one stage satisfactorily, having to master a new task appropriate for the next stage brings with it tension & stress and creates conditions that can lead to crisis. Sooner or later all people become aware that they have to master certain developmental tasks at various periods ^{during their life}. Each individual also becomes aware of being early, late or on time with regard to these tasks. It is this awareness that affects their own attitudes & beh. as well as the attitudes & beh. of others toward them. Although, most people would like to master developmental tasks at the appropriate time, some are unable to do so & others are ahead of schedule. Regardless of the cause, there are 2 serious consequences of failure to master developmental tasks. One

of the unfav. consequence is the unfav. social judgements that follow the individual's failure to master DT. Once prestige in the eyes of peer group falls & the label of immature is tied to the individual & this label leads to unfav. self judgement which in turn leads to unfav. self concept.

Another consequence is that the foundation for the mastery of later DT becomes inadequate & as a result individual continues to lag behind his peers & this further increases the feeling of inadequacy. Further, individual is confronted with a two fold challenge of meeting the requirements of DT of his present age and as well as completing the DT of the preceding age levels that have been left incomplete. This can cause immense stress as well as confusion.

Mastering DT depends upon maturational level of the child, general state of physical and mental health, creativity and motivational level of the child, intelligence of the child & the opportunity to learn DT under the guidance of capable mentors.

Nature vs Nurture Debate

(i) Methods

(ii) Studies

$$B = H \times E$$

→ If anyone of them is zero, beh. will not unfold.

→ The relative proportion of 'H' & 'E' can be diff. among individuals.

• Genes are the carrier of heredity

• Env. is sum total of stimulation received from the time of birth (conception) till date.

• Heredity - constant
or

Env - constant

• To study relative contribution of 'H' & 'E':

(i) selective Breeding

(ii) Twin Studies

→ Identical twins reared apart

→ Identical twins & fraternal twins reared together

(iii) Adoption Studies

(iv) Family studies

(v) Family History Method

Two kind of twins :- a) Dizygotic → Double fertilisation → 50% genetic similarity

b) Monozygotic → same genotype → 100%
↳ same zygote splits

⇒ In Dizygotic → interuterine env. is same (difference from siblings)

- Concordance Rate
- Discordance Rate
- Heritability Ratio (HR)

V_f :- within pair variation in same sex fraternal twins

V_i :- " " " in identical twins

$$HR = \frac{V_f - V_i}{V_f}$$

$$0 < HR < 1$$

Env. Genetics

- Concordance Rate :- Degree to which there is a chance that if one twin has a the trait of a disease, the other shall also have it.

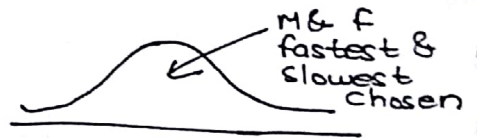
→ Deg. to which twin pair share similar trait or disease

- Discordance Rate :- Deg. to which they do not share same trait or disease

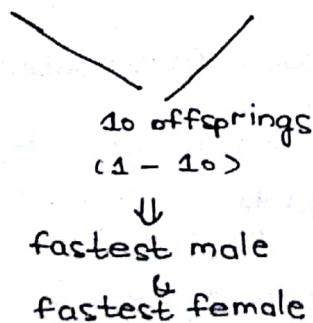
(i) Selective Breeding

→ Robert Tryon

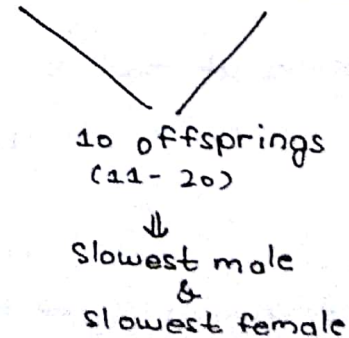
→ whether activity level in rats is hereditary or not



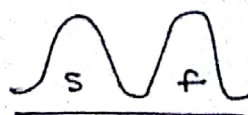
Male Rat (fastest) Female Rat (fastest)



Male rat (slowest) female Rat (slowest)



population distribution



∴ after 8 generations

∴ speed is determined by genetics (inherited)

ii) Twin Studies

a) Identical twins reared apart

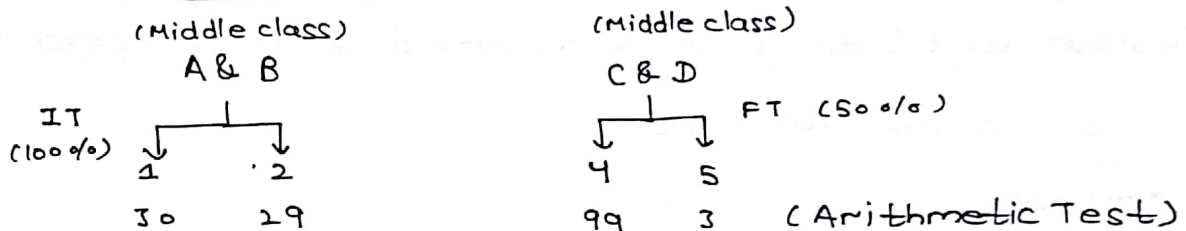
→ Thomas Bouchard et al

→ 23 pairs of identical twins separated at avg. age of 4 weeks (reared in diff. cultures)

→ Similar idiosyncracies (~~mind~~ overlap in ^{beh. pattern,} personalities, etc.)
eg. Both twins got divorced, wore earring in only one ear.

∴ There are many things that are determined by genetics.
Greater role of genetics.

b) Identical & Fraternal twins reared together



This, also shows role of genes as env. are similar

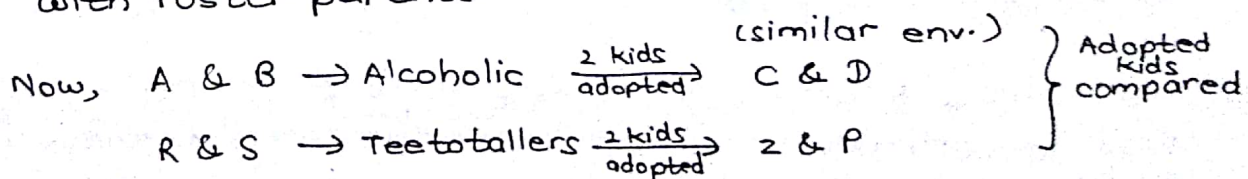
* These are correlational research & not controlled studies.
Some ambiguity will be there

ciii) Adoption Studies / Foster family studies

→ Kids of alcoholic parents even when adopted by people who do not drink turned out to be alcoholic

→ Alcoholism has some genetic factor

→ Correlation with biological parents is more than that with foster parents.



* All kids were adopted very early. Adopted kids of A & B → turned alcoholic & kids of R & S → did not

[This proved the role of genetics]

(iv) Family studies

child ^{compared} → Twin brother, other sibling, same economic conditions, Ist cousin, IInd cousin, IIIrd "

Receding genetic similarity →

eg. suppose the child has schizophrenia, incidence of disease receding as genetic similarity reduces ⇒ shows the role of genes.

(v) Family History Method

↳ Not used now

↳ given by Galton

↳ family tree / Genealogies are prepared

↳ Galton said both 'great' & 'tainted genes' are passed

Jukes → superior genes
&

Kallikats

eg. kids of thief will become ~~thief~~ thief

But this can be due to other factors → Role Model
(Not solely based on genes) ↳ Environment

Conclusion

(i) Heredity & env. are the contributors in the dev. of human beh. but heredity happens to be more potent force.

(ii) Env. plays a determining role in the dev. of the organism. Hereditary traits remain unrealised without the proper env. to actualize them.

(iii) Heredity & Env. are inseparable correlates. Env. determines which hereditary traits will be developed & to what extent. Thus, heredity provides the reaction range i.e. the range of possible behaviors we can acquire &

whether or not we will acquire these beh. is contingent upon the nature & quality of env. into which we are born & with which we interact.

Socialization

lifelong process of shaping individual's tendencies so that he becomes a useful & productive member of his society.

It can be direct or indirect.

Direct → Actual contact with the society

Indirect → Influence of the society operates through some media

* Mechanisms

(i) conditioning

↳ systematic administration of reward & punishment

(ii) Modeling

↳ obs. learning

(iii) Identification

↳ exact copy & unconscious

(iv) Imitation

(conscious counterpart of identification)

↳ exact copy

(v) Role Playing

↳ significance, challenges & requirements of various roles

(vi) Trial & Error

↳ motor behavior can only be learnt through trial & error

* Various agencies of socialization

(i) Family

(ii) School

(iii) Religion

(iv) Media

(v) Workplace

(vi) Peer group

* Family

- ↳ Indian context
- ↳ Informal agency of socialization
- School - formal
- religion - supernatural
- Media - vicarious reinf.
- workplace - job satisfaction & occupational identity
- peer group - interaction among coequals

• Family

- ↳ styles of parenting
- ↳ Role of mother
- ↳ Role of Father

Network of relationship marked by co-operation, continuity & emotionality not duplicated in any other system.

The family is the primary agent of socialization & it presents the context in which children acquire their beliefs, attitudes, values & behaviors considered appropriate in their society.

In family, it is the parenting that plays an imp. role in the acquisition of desirable attitudes & beh. Parenting can be defined as the child rearing practices adopted by the parents to inculcate in their children self discipline & self confidence. Basic goal of parenting in all societies includes:

- (i) Ensuring child's survival
- (ii) Preparing child for economic self-sufficiency
- (iii) Encouraging the child to maximise other cultural values such as altruism, morality, achievement, etc.

Based on responsiveness & demandingness shown by the parents, there are 4 styles of parenting:

(i) Authoritative style (Democratic style)

Both demanding & responsive & promotes cognitive, emotional & social competence from early childhood into adolescence.

(ii) Authoritarian style

It is high in demandingness & low in responsiveness and is associated with anxious, withdrawn & dependent child.

(iii) Permissive style

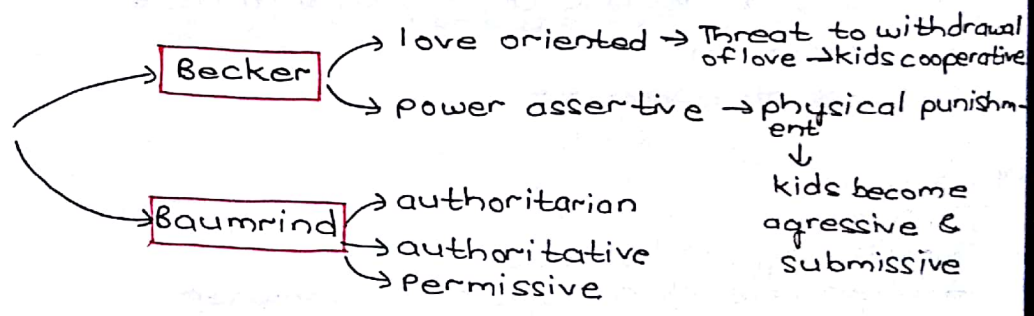
Responsive and undemanding. Children reared in this type display poor self control & achievement.

(iv) Uninvolved style

Low in demandingness & responsiveness and it disrupts virtually all aspects of behavior.

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(i) Parenting Styles



• authoritarian → restricting the autonomy → kids dependent

• Authoritative → rational, issue oriented manner
→ very early independence training for kids

• permissive → as much freedom as is consistent with physical survival

* Role of Mother

↳ Bowlby

↳ Spitz

↳ Attachment
 ↳ Bowlby
 ↳ Ainsworth

↳ Exclusive mothering vs Diffused Mothering

↳ full time mothering vs substitute care (working mothers)

↳ For Indian Mothers → Sudhir Kakkar

* Bowlby

↳ Neo Freudian

↳ Mother's love during infancy & childhood is as imp. for the mental health of the child as are vitamins & proteins for physical health

* Spitz

↳ Anaclitic depression

↳ when infants ^{of} 6th - 8th months, deprived of maternal affection.

This leads to:

(i) weepiness

(ii) General decline of health & affect

(iii) Insomnia

(iv) Loss of appetite

* Harlow

↳ contact comfort

↳ when one skin rubs over another

↳ This develops trust

↳ Monkeys with only wire mother → no interest in mating & if forcefully made to mate, they did not have any interest in the offsprings.
(wire & cloth mom experiment)

↳ Even if cloth mom was ~~extra~~ cold, baby monkeys stayed with her)

↳ Rocking cloth mother was better than stable cloth mom.

• Attachment

- ↳ It is an affectional bond between the child and the attachment figure (usually the caretaker).
- ↳ Lasting psychological connectedness between the human beings
- ↳ The process lasts throughout the life span

* Characteristics of Attachment

- (i) proximity maintenance
- (ii) Separation Distress
- (iii) Secure Base (enhances exploration of the world)
- (iv) Safe Haven (secure feeling)

• Bowlby

Attachment is very imp. for:

- (a) socio-emotional wellbeing
- (b) mental "
- (c) Physical "

→ Attachment must be understood in the evolutionary context.

→ Children come to the world, preprogrammed to form attachment

→ Attachment serves as a prototype for future relationships.

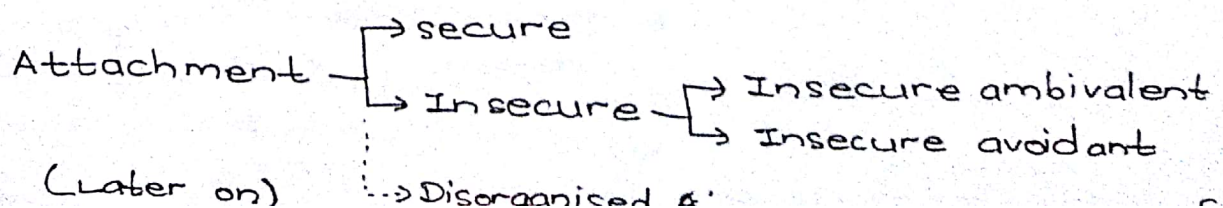
→ 0 to 5 years → critical period for attachment

→ If this does not happen → irreversible developmental consequence.

→ Attachment is all or nothing concept.

• Ainsworth

→ There are individual differences in attachment



* Secure attachment

- ↳ mothers are responsive & sensitive to the need of the child.
- ↳ in the times of distress will seek attachment with the caregiver (attachment figure) → contact comfort the child will feel
- ↳ child will explore the env. & will be able to form trustworth relationship with the parents & significant others.

* Insecure Attachment

↳ a) Insecure avoidant

- ↳ children feel unworthy
- ↳ low self esteem
- ↳ parents are insensitive & unresponsive
- ↳ when distressed, they don't seek contact with the attachment figure

b) Insecure ambivalent

- ↳ they show dependent beh. but when ~~you~~ the caregiver comes, they reject him/her.
- ↳ due to inconsistent behavior by the parents

* Disorganised Attachment

- ↳ kids develop lack of coherent behavioral strategy to deal with the stressor in life
- ↳ Care givers are fear inspiring

Note:- No word as 'over attachment', it is insecure attachment.

Detached Attachment → A person with secure attachment & no expectation of anything in return

* Working Mother

↳ Should mother work?

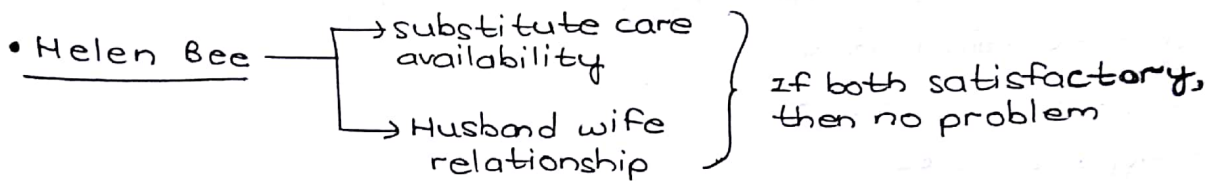
(i) Bronfenbrenner

(ii) Helen Bee

(iii) Terence Moore

(iv) Michael Rutter

(v) Clarke-Stewart



⇒ If there is instability in the family → then it is a problem
⇒ Full time motherly care not necessary

* Bronfenbrenner

↳ +ve impact on girl child

↳ admire mother

↳ healthier conceptualization of female role

⇒ Boys are adversely affected

* Terence Moore → Exclusive mothering vs diffused mothering

• Exclusive → full time

• diffused → at least 25 hours a week away from mother

⇒ No diff. for girl child

⇒ For boys, diffused led to active, independent & disobedient

↳ more concerned about peer approval

↳ often dropouts from school

⇒ Exclusive → obedient, co-operative, adult approval

→ did well at school

→ internalised adult standards of behavior

* Michael Rutter

↳ mother's employment will have no -ve effect provided suitable substitute care is given

↳ children at day care centres are better → There they can affiliate with variety of adults & get a chance to interact with their co equals.

(No Problem if)

* Daycare should provide opportunities for;

(i) Cognitive stimulation

(ii) social development

(iii) Play activities

* Clarke-Stewart

Any daycare centre should:

(i) have warm & responsive caretaker (CT)

(ii) CT should respect individual diff

(iii) 1 CT per 6-7 children

(iv) CT should be able to cater to the needs of the children

(v) Provide the children the opportunity to be their own

* Role of Father

↳ Not less imp. than mother

↳ children get attached with their father

↳ Lamb et al → father's interaction with child is qualitatively diff. from that of mother.

Father's interaction	→	play settings
Mother's	→	nurturance

↳ for boys → identification → gender roles

↳ " girls → normal heterosexual behavior

* Single Parent

↳ If there is a choice bet. conflict ridden nuclear family & single parenting → single parenting is better (after some years it stabilises)

• Problems in Single Parenting

- (i) Financial problems
- (ii) Less quality time
- (iii) Less joint Activity
- (iv) Enforcement of disciplinary activities

⇒ Rearing a male child is more difficult

⇒ It also depends on how single parent has emerged:
Death → less issues

divorce or separation → long period of uncertainty which becomes debilitating for the child

* Indian Context

Changing social trends in Indian families:

- (i) greater no. of single adults
- (ii) late marriages (attitude of both genders become crystallized before marriage)
- (iii) More female participation in the workforce
- (iv) Increasing rate of divorces
- (v) Remarriages
- (vi) Decline in child bearing
- (vii) Greater female participation in decision Making

* In context of child rearing & family:

(i) Strong cultural continuity with the past has an influence on socialization practices.

Focus is on ~~on~~ protective nurturance & not training.

(ii) Traditional cultural images continue to influence cognitive, social & emotional world of Indians.

2 Anthropologists came to India → **Marriot & Singer**
↳ Research on Great Tradition (textual)
& Little Tradition (contextual)

⇒ In India cultural continuity ~~is~~ is very high, so if a modern innovation comes → change is due to selective adaptation
(not through basic transformation)

→ traditionalisation of apparently modern innovation

(iii) parent's beh. is guided by the principle of child centredness & children are considered to be the gift of God and are totally indulged, protected and there is a belief in total gratification.

(iv) Indian mothers demonstrate indulgence which extends beyond the period when the child can independently take care of himself. This enhances child's feeling of trust & dependability as well as control over the env. Early life is dominated by mother serving as a substitute ego for reality functioning. This role is taken over later by social institutions to which the individual clings for social support

(v) Social identity is derived from the matrix of relationship.

(vi) The shift from joint to nuclear families is accompanied by changes in family obligations, power structures, hierarchy & Decision Making.

(vii) Fathers in contemporary times are also involved in child care while they often retain their traditional authoritative advisory role.

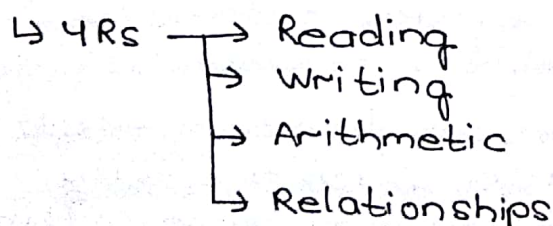
- (viii) While mothers in addition to their child caring responsibilities are often wage earners with decision making powers and they employ paid help for child ~~rearing~~ ^{care} because children are separated from ~~mother~~ & ~~they~~ they have an independent functioning Exposure to diverse role models and outgroup affiliations
- (ix) Social class differences are evident in many aspects of child rearing. In middle & upper class, child centeredness has taken a new form in the shape of investing increasing amount of time, energy & money in their children's extra curricular activities & educational & occupational options. Parents supervise their children's homework, invest in tuition, attend PT meetings.
- (x) Mass media & other formal agents such as day care centres & peer group affiliations have gained an influential role in socialization which is no longer a uni directional process.

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- (i) School
- (ii) Peer group
- (iii) Other Agencies

(i) School

- ↳ 1st formal agency of socialization
- ↳ orients the child to the culture he lives in



- Influence of school will operate through:
 - (a) curriculum
 - (b) Teachers
 - (c) Peers
 - (d) Extra curricular Activities

- 1) Reward & Punishment
- 2) Obs. Learning
- 3) Role Playing
- 4) Trial & Error
- 5) Identification

*challenges for curriculum →

- a) Practical basis
- b) Cultural specific
- c) to be able to take care of individual differences
- d) Sufficient scope for recreation

* Role of Teachers

- a) within the classroom
- b) Outside " "

→ Most imp. attribute of teacher → friendliness
↓
through effective comm.
&
fair and just use of
reward & punishment

• Teacher can generate:

- a) interest for learning
- b) inquisitiveness

↓

This can be done if Teacher has →

- a) Knowledge of subject matter
- b) Conversational skills

* Extra curricular Activities → Activities outside the ambit of textual activities
→ They can develop attitudes & values which are very difficult to develop through textual activities
eg. synergy, togetherness, teamwork, co-operativeness, delegation of work, etc.

● Aim of the school is to develop:

- (i) Occupational Adequacy
- (ii) Personal Adequacy (Emotional stability)
- (iii) Social Adequacy (")
- (iv) Academic Adequacy (cognitive skills)

} Psychomotor,
cognitive
&
socio-emotional
skills

(ii) Peer group

↳ coequals → Broad spectrum of Topics taken up for discussion

→ Release of pent up feelings

→ social support

→ adolescence → Identity crisis → Social, emotional, material, ~~the~~ Information & even monetary support

→ life & occupational goals & the efforts put to realise the goals are influenced by peer group

• +ve Peer Group association → Pro social beh.

• -ve " " " → Anti social beh.

(iii) Media

↳ refers to mode of communication

↳ when it appeals to masses → Mass Media

↳ entire family of technological devices that make the communication among masses possible.

↳ Mass media → vicarious reinforcement

↳ Bobo Doll Experiment by Bandura

• Altruistic models → Altruistic beh. will develop

• Anti-social " → Anti-social " " "

↳ very imp. role in social change → influence attitudes & values of people

→ Unique as it is a tool of Information Spread

→ Media can develop in people a sense of **relative deprivation**

* Imp words with media →

- 1) Relative Deprivation
- 2) Consumerism
- 3) Commodification
- 4) ~~stereotyping~~ Stereotyping
- 5) Mobile Personality
- 6) Aspiration Explosion
- 7) Commercialisation
- 8) Infotainment
- 9) Illusory Correlations

max. RD → when you feel that you deserve something but have been unjustly ~~denied~~ denied.

* Stereotyping can be +ve also → eg. Every American good is of superior quality.

* **Lerner** gave the concept of **Mobile Personality**

(Media helps to promote it)

- ↳ forward looking
- ↳ objective
- ↳ growth oriented
- ↳ rational
- ↳ ^{opp. to} ~~against~~ 'son of the soil'

* Why are TV & Social Media so famous?

Ans: (i) Most people are cognitive misers → require very less cognitive effort

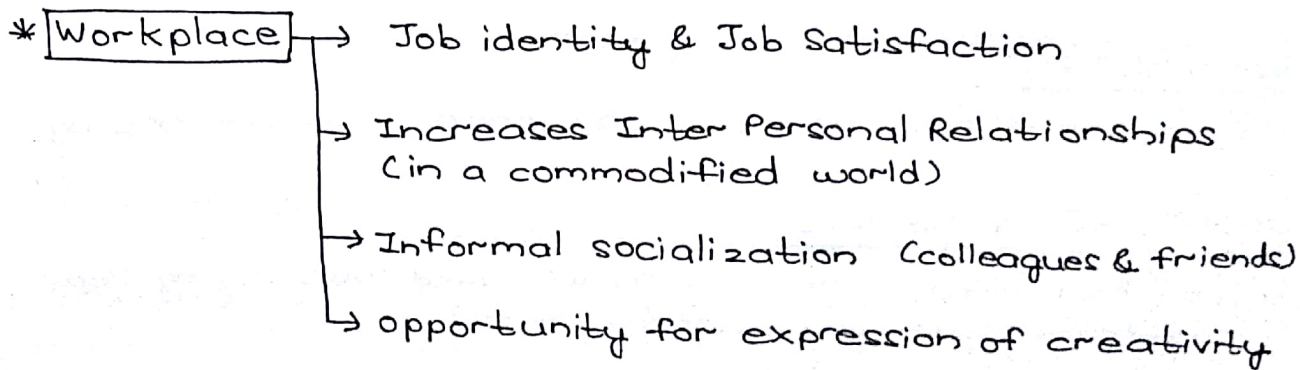
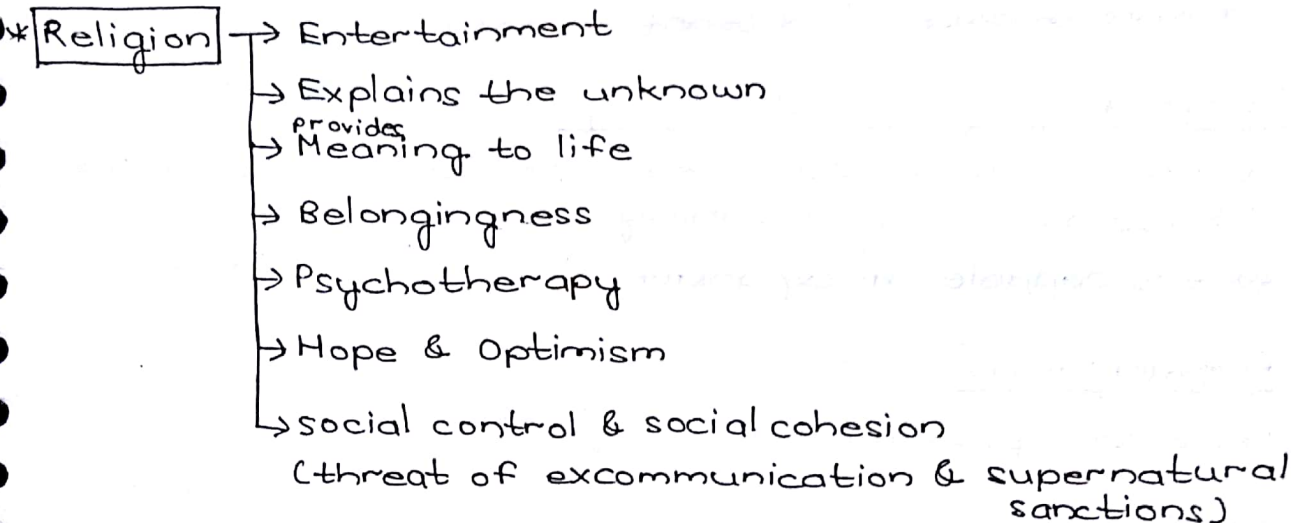
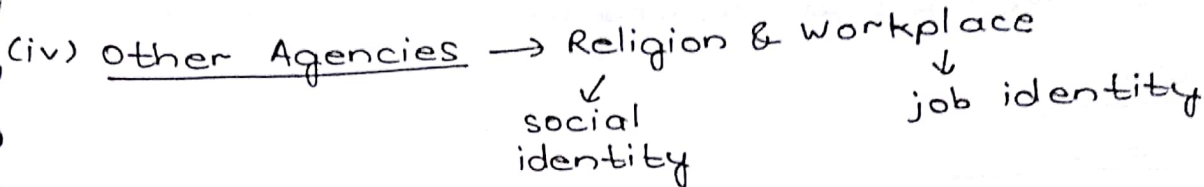
(ii) Media + Non Media can be combined → some other task can be done simultaneously

(iii) High level of entertainment possible

"Plug & Drug" → Social Media Addiction

- Desensitization
- Deinhibition
- Priming (how we interpret) have been prepared to
- New ways of carrying out the action
- Language deterioration

} other influences of Media



(Mayo studied the importance of informal networks)

- * Socialization → faster in initial years & then it slows down (though it is a life long process)
- It slows down as later on attitudes & values crystallize.

Language

Language is a system of sounds & symbols that when combined according to certain rules result in meaning that is intelligible to all speakers.

→ Exclusive Human Attributes

→ Animals have vocalization (comes from 'vocal cords')

Properties

i) Displacement

↳ talk about things beyond time & space.
(future & past), (distant things)

ii) Generativity & Productivity

↳ symbols can be combined & re-combined to form huge amount of meanings

↳ it is capable of expansion

iii) Prevarication

↳ we can speak lies, nonsense,

iv) Dynamic

↳ New words will be added & grammatical rules will change

v) Learnability

↳ Speakers of one language can learn any other language

vi) Duality of Patterning

↳ combined effect of sounds will have meaning eg. Papa
(patterns emerge on combination)

vii) Arbitrary & structured

• Arbitrary → symbols are referential (names to things have been given arbitrarily)

• structured → ~~grammar~~ grammatical rules are required for sentence creation using the symbols (which are referential)

viii) Communicative

↳ comprehension, transmission, production of information

ix) Reflectiveness

↳ you can talk about the communication system

* Structure of Language

a) Units of Language

b) Rules of Language

a) Units of Language

(i) Phoneme

(ii) Syllables

(iii) Morphemes

(iv) words

(i) Phoneme

↳ 'phone' (comes from)

↳ [↓] speech sound

↳ when it gives meaning, it becomes phoneme

↳ smallest unit of language that distinguishes meaning

↳ you cannot hear it → you will hear 2 or 3 phonemes combined

(ii) Syllable

↳ smallest unit of speech perception → will not help in deciphering meaning (that is why 'un' is not a syllable)

↳ eg. At, I

(iii) Morpheme

↳ smallest unit of speech perception that has meaning

↳ Free Morpheme → light, House, ~~light house~~, go, I

↳ Bound " → un, prefixes & suffixes

iv) word → Unhappy (2 morphemes)

Rules

(i) Rules of Phonology

- ↳ which combination of sounds are permissible
- ↳ " " " " will distinguish meaning

(ii) Rules of Morphology

- ↳ how phonemes will combine to form words

(iii) Rules of syntax

- ↳ how words will combine to form sentences
- ↳ rules of grammar

(iv) Rule of Pragmatics

- ↳ social context in which ~~from~~ the language is used

* Stages of language development

1) Prelinguistic stage (0 - 1 yr)

0-6 months → Noises

6-9 months → Babbling

9-12 months → Echolalia (repeat the verbalisation of others)

2) One word stage (12 - 24 months)

- ↳ use of Holophrases

3) Two word stage (24 - 36 months)

↳ Telegraphic speech (without conjunctions) eg. Daddy Here
(name comes from the use of it in Telegrams ^{etc.} to reduce no. of words)

4) Morphosyntactic stage (36 - 48 months)

- ↳ all skills of language are developed

* Theories of Language Development

(i) Empiricistic approach → experience

(ii) Nativistic approach → brain maturation

(i) Empiricistic Approach

(Experience)

↳ Skinner

↳ Language Learning →
i) Reward & Punishment
ii) Generalization
iii) Shaping
iv) Chaining

ii) Nativistic Approach

↳ We are pre-programmed to acquire language

↳ No special training needed.

Theory of Skinner

→ book 'verbal beh.'

→ Lang. learning is the role of operant conditioning

→ **Mands** → neologisms for command & demand.

↓
→ verbal operants in which response is followed by a specific consequence in the verbal community.

→ Mands are influenced by the need & state of the individual

• They are the utterance that are influenced by the drive states. (+ve & -ve reinf.)

• They are under control of some condition of deprivation

(Survival vocabulary is learnt first by the child across ^{all} cultures)

• **Tact**

↳ a response of a given form evoked by a specific object or event

↳ learning to name objects

↳ Parents & Teachers encourage children to use tacts

• **Echoic**

↳ imitation of other person's utterances

↳ They are controlled by previously heard speech

↳ Direct verbal imitation by the learner

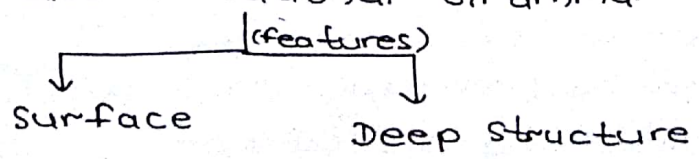
- **Textuals** → Textual pronouncement is the word read
→ controlled by written material
- **Intraverbals** → social phrases that are taught
→ taught by word association tests (WAT)
- **Autoclitics** → Verbal behaviors that are dependent upon other person's verbal behavior.

* Problems with Skinner's approach

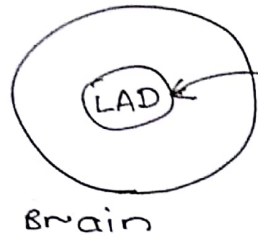
- (i) Difficulty in accounty for creativity shown by the speaker
 - ↳ Generativity
 - ↳ Productivity
- (ii) child's initial constructions are not the crude approximation of adult' speech.
- (iii) No evidence to suggest that parents set up systematic schedules of reinf.
- (iv) High degree of linguistic competence is acquired in a short time.
- (v) children with congenital speech defects & deaf and dumb show well defined comprehension for language.

Chomsky

- Nativist
- postulated the presence of LAD (Lang. acquisition Device)
- TG → Transformational Grammar



- linguistic universals
- Language is about Brain Maturation
- He could explain the uniqueness of lang. & how children from moderate background become great orators.



LAD gets activated when infant is exposed to verbal community

[LAD is like an organ → just needs a stimulus]

[Today evidence for LAD is there]

→ Knowledge of rules of grammar is not required to learn language

→ Below threshold^{level} of LAD → children become retarded.

→ LAD hears utterances & produce its own grammar

* Transformational grammar

↳ transform lang. from surface to deep.
(these are universal)

↳ This is why some sentences even if grammatically correct make no sense

↳ when surface to deep transformation happens, sentence starts making sense.

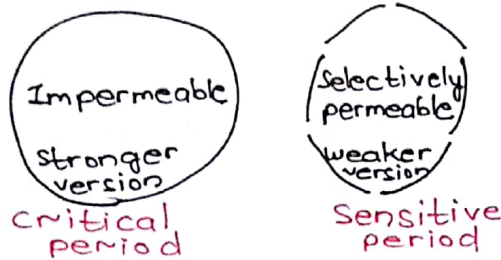
⇒ To an extent Skinner is also correct but Chomsky has more evidence.
(People can learn some sentences of a language eg. guides at tourist places)

* TG → create, transform & understand sentences
↳ set of rules that connect surface & deep lang.

Criticism

(1) Vocabulary building is a slow process

* Critical Period Hypothesis



⇒ Once the period is over, no matter whatever change you do, nothing is possible → ~~with~~ stronger version

⇒ Weaker ~~is~~ version → some change is possible

* ~~Karl~~ Lorenz → ~~Monkey~~ Ducklings

* Harlow → ~~Ducklings~~ Monkey (contact comfort)

• Lorenz

↳ came up with concept of imprinting

↳ ~~if~~ he presented himself as the first movable object to the ducklings ⇒ wherever he went, the ducklings followed in straight line.

↳ if no moving object within the stipulated time, this beh. was not developed → imprinting

↳ within a specific time, the stimulus should be provided → after this, the beh. cannot unfold no matter how much stimuli exposure happens

(Same was proved by contact comfort)

After ^{these} ~~this~~, this was tested in human

⇒ Personality

⇒ Intelligence

⇒ Language

In ^{after critical period} ⇒ Human beings, ^{considerable} improvement can be made ⇒ Sensitive period

⇒ Jenny Kurtis Genie by Curtis

⇒ ~~the~~ Wild Boy of Aveyron → Jean Marc Itard

} Quasi-Experimental Evidence

↳ Feral children (~~reorder~~ reared by wolves)

* Sensitive Period → max. observed in language

* Language → cut off point in humans is puberty (But boundaries are semi permeable)

⇒ This is even proved by learning a ~~the~~ second language before puberty → This learning is faster

⇒ In human beings, critical period is longer → Hence weaker version more applicable.

⇒ Make intervention before sensitive period.

⇒ In human beings → sensitive period holds (more evidence for language)