Introduction to Psychology Prof. Braj Bhushan Department of Humanities and Social Sciences Indian Institute of Technology, Kanpur

Lecture – 02 Major Milestones in Psychology

Having known the areas of psychology, having known how this subject matter has finally, and expanded its wings.

Let us now concentrate on the Major Milestones in Psychology. So, basically what I will be doing is I will be just know helping you glided through the major milestones, historically if you look at the major incidents in psychology. So, major events and my initial efforts would be to give you a base line and then again we will revisit it to see that if you broadly try to summarize what people were trying to do in that point in time in the history, what could be primary engagement of the people there, What would be the outcome of a particular decade or say a span of particular time range. And then it specifically we would be focusing at the major mile stones in psychology with respect to the development at took place with in India.

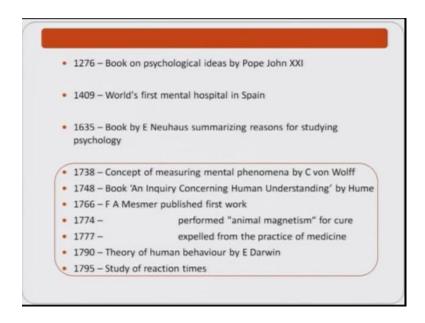
Now all text books of psychology if you visit them. You will find the reference of 1879 the year when the first laboratory of psychology was established by Wilhelm Wundt.

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 1879 - First psychological laboratory was established by Wilhelm Wundt So, I considered that this was now the first formal base line if I create it for this very course.

So, what I will do is, now we will first see the sequence of events that took place before 1879 and then the sequence of events that took place after 1879 and we would basically I have tried that the visuals that you see on your screen they would be no historically divided in the time frame.

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So, if you see here right now we start from 1276 and go up to 1795 and the next visual that you would see that would start from 1800, then from 1900, then from 2000 onwards and likewise.

Now, there is a very discrete spread here 1879 and before that if you start tracing back did somebody do something in psychology you find it 1276 when Pope John 21 - he came forward with the book which had psychological ideas, 1409 when the people in Spain realized that there was a need to establish a mental hospital and then long back 1655 a book came which summarized the reasons for studying psychology remember our first lecture as on why psychology and similar known thing was taken up in 1635 and then there was a long gap and you realized that initially saying that what are the prominent ideas in psychology and then why one should study psychology and then by the time you come to 1739 suddenly you realize that people started talking about the mental phenomena has and not how to measure them.

So, Wolff came forward with the concept of measuring mental phenomena's and then 1748 there was a book called an inquiry concerning human understanding by Hume and all of you know Mesmer his work and how much he influenced (Refer Time: 03:44) So, 1766 was the time when Mesmer published his first work, 1774 just couple of year later he performed his animal magnetism study for cure and as a consequence 1777 was the year when he was expelled from the practice of medicine.

The theory of a human behavior by Darwin came in 1790 and 1795 remember how old is this, 1795 when the study of reaction times started and remember even if you look at the contemporary development you would realized that reaction time is just till taken as one of the top dominant measures.

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1802 – Book 'A Theory of Color Vision' by T Young
1810 – Foundation of modern statistics
1820 – 'On the Relationship between the Soul and the Body' by Beneke
1822 – Separation of sensory and motor function of the spinal cord-F Magendie
1850 – Report of nerve speed conduction
1859 – 'The Emotions and the Will' by Alexander Bain
1860 – 'The Elements of Psychophysics' by G Fechner
1860 – 'Mind and Brain' by T Laycock
1861 – Identification of Broca's area in the brain
1876 – 'Mind' the first journal for psychological research by Alexander Bain
1879 – Method of word association- Francis Galton
1879 - First psychological laboratory was established by Wilhelm Wund

Then we look at the list what are the things that took place in 1800 onwards, 1802 there was a book by T Young named "A Theory of Color Vision". Foundation of modern statistics was also laid in 1810, 1820 when Beneke came forward with a book 'On the relationship between the soul in the body'. Magendie in 1822 gave know this concept of separation of sensory and motor functions of the spinal cord.

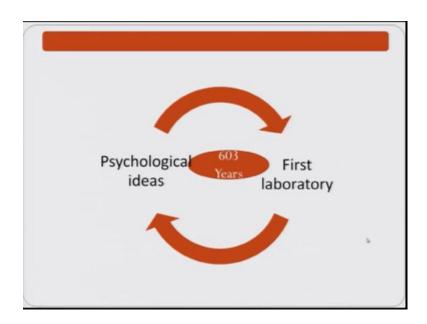
A report was published in 1850 that talked about speed of nerve conduction; in 1859 Alexander Bain wrote a book 'The Emotions and the Will'. 1860 when Fechner came forward with his very famous book 'The Elements of Psychophysics', 1860 when Laycock wrote his book 'Mind and Brain', 1861 again a major bench mark when Broca's

area in the brain was identified and the first journal of psychology was established by Alexander 1876.

So, you see know whole lot of development that took place during those time and primarily if you realize no it is more of psychophysics, a little bit of emotions and then the intentionally was primarily to how to quantify things. Whether now through statistical measure or through measurement of conduction of the nerve speed, you realize that there is a the primary focus was on the assessment part or measurement part either you tried to quantify things, try to measure the speed of the nerve conduction or you will try to look at the reaction time, you use statistics and at the same time people were looking you know and trying to localize the functions in the brain. So, this was the major changes that were taking place.

But in terms of assessment the major breakthrough again was 1879 when Francis Galton came forward with the method of word association and of course, the same year the first laboratory of psychology was established.

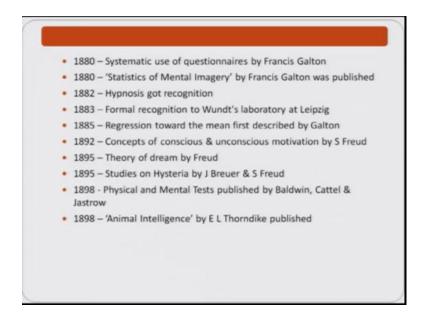
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So, if you look at this time frame that we have covered 603 years we have covered, right from psychological ideas by Pope to the establishment of the first laboratory and you saw that initially people were looking at what could be the content of a this very discipline, people were looking at say functions if they can be localized in the brain, people were looking at measurement of a certain abilities and then further if you look

beyond this means this is after 1880 an onwards, Francis Galton again came forward with a usage of questionized and this was know when systematic usage was proposed, it was used, it was demonstrated.

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Now if you look at the methods used in psychology, the tools that you that are used in psychology would realize that most of the researchers heavily depend on questionnaires.

Francis Galton once again know came forward with his book on statistics for mental imagery 1882 when the hypnosis got recognition and although 1879 was the year when William Wundt's established his lab it was 1883 when this lab got formal recognition by the university authorities. 1885 once again Galton came into picture where regression was established as a tool to know go ahead with certain type of statistical interpolations. 1892 when the concept of conscious and unconscious motivation was proposed by Sigmund Freud, and just 3 years later 1895 when Freud came forward with his theory of dream the famous combination Breuer and Freud their studies on hysteria came forward the same year 1895 and then 1898 was the year when Baldwin, Cattel and Jastrow they published physical and mental test.

The same year animal intelligence was published by Thorndike and if you again summarize, right from 1800 to 1898 what are the major developments you realize that quantification, development of tools and certain type of psychological processes these were the primary focus during these years.

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1901 – Alois Alzheimer presented prototypic case of Alzheimer's disease
1904 – Spearman paper on general intelligence published
1905 – First presentation of Binet and Simon's first intelligence test
1917 – Stanford-Binet Intelligence Test published
1921 – Rorschach cards published
1935 – B F Skinner distinguished Pavlovian conditioning and operant conditioning
1935 – First report of the "Stroop effect"
1935 – Thematic Apperception Test developed
1939 – Frustration - aggression hypothesis by J Dollard, N Miller and colleagues
1954 – Hierarchical theory by A Maslow
1954 – B F Skinner demonstrated machine designed to teach arithmetic using instructional program
1960 – Sensory memory by G Sperling

In 1901 we are now moving to the next decade, 1901 when Alois Alzheimer presented the prototypic case of Alzheimer's disease and now if you again a look at the text in clinical psychology, neuropsychology you would find whole lot of case studies and other type of research reported on Alzheimer patients. 1904 when Spearman came forward with his concept of general intelligence, 1905 when Binet Simon they came forward with their first intelligence test and couple of years later in 1917 Stanford-Binet intelligence test got published.

The famous Rorschach cards they were published in 1921 and 1935 when Skinner made this distinction between the Pavlovian conditioning and operate conditionin. Stroop task effect or their Stroop effect this was reported for the first time in 1935 and the same year thematic apperception test also was developed. The famous frustration - aggression hypothesis of Dollard, Miller and his colleagues and no they came forward in 1939 with this hypothesis. Maslow's popular hierarchy theory that came forward in 1954 and 1954 was again the year when B F Skinner demonstrated a machine designed to teach arithmetic using instructional program and majorly took place in 1960 when Sperling came forward with the concept of sensory memory.

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1973 – Nobel Prize to K von Frisch, K Lorenz & N Tinbergen in recognition of their studies on the behaviour of animals
1976 – The 42 member societies of IUPsyS unanimously adopt the Resolution Concerning Professional Ethics in Psychology
1978 – Nobel prize to H A Simon in economics for research in decision-making
1980 – Behavioral and Social Sciences added as award category for the National Medal of Science Act
1991 – Research laboratory for Asian indigenous psychology established in Taiwan
1992 – First World Mental Health Day observed

Now, we are coming close to the contemporary times 1973 was the year when Frisch Konrad Lorenz and Tinbergen they were recognized for their study on the behavior of animals and they were conferred Nobel prize. 1976 was the year when 42 member society of international union of psychological sciences unanimously adopted the resolution concerning professional ethics in psychology.

Again 1978 when Nobel prize was conferred to H A Simon in economics for his research in decision making, 1980 was the time in behavioral and social sciences was added as a award category for the national medal of science act, 1991 was the year when research laboratory for Asian indigenous psychology was established in Taiwan, 1922 when the first world mental health day was observed.

Now, if you see the distinction right from 1800 to somewhere around no early 1960 and so, you would find that most of the part breaking research in psychology took place around that time and if you come more and more closure to the later part that is 1966, 1980, 1991, 1992, it was more of the organizational aspect of the discipline.

So, let us of construct developments and proposition of new theories rather it was more of say how the professional body should be regulated, concerning ethics also the need that an indigenous approach is needed in the discipline to understand various aspects of the subject.

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2001 – The American Psychological Association was recognized as a non-governmental organization affiliate of the United Nations Economic and Social Council
2002 – Nobel prize to psychologist Daniel Kahneman in economics
2004 – PsycINFO launched
2004 – PsyCorps was founded
2007 – The first annual Psychology Day at the United Nations held in New York
2008 – 'Statement on the Role of Psychologists in International Emergencies' released by the American Psychological Association
2008 – Universal Declaration of Ethics Principles endorsed
2010 – IUPsyS adopted a policy on the free circulation of scientists

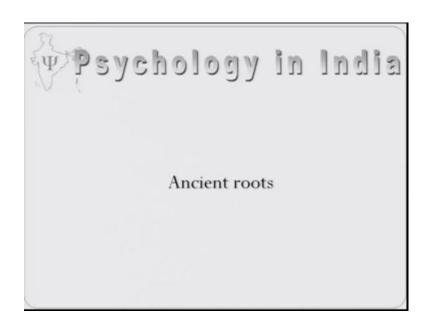
2001 was when American psychological association was recognized as a nongovernmental organization as an NGO, affiliate of the united nations economic and social council, 2002 was a year when Kahneman again got a Nobel prize in economics although his work primarily you know has to do much with psychology as well, 2004 when PsycINFO got launched and PsyCorps was founded in 2004.

So, basically you know the electronic decimation of knowledge through PsycINFO and PsyCorps basically know collection of the test materials. So, this was a time again if you look from 2000 onwards basically associations, collection of material decimation of knowledge collection of test materials these were the things that was taking place, 2007 when the first annual psychology day at the united nation was held in New York. So, now, the celebration part also began, 2008 when the statement on the role of psychologists in international emergencies was released by the American psychological association.

2008 was when universal declaration of ethics principles was endorsed and the international union of psychological sciences adopted the policy of on the free circulation of scientist in 2010.

So, having known the major mile stones, covering right from 1200 to the contemporary developments let us now have a very quick look at what was taking place in India in terms of the development of this very subject.

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For convenience I have broken it into certain segment. It is now a common experience in our country that whenever you talk to people in psychology they would always tried to connect any modern concept to the ancient roots and if you talk to common man they would always connect all their you know daily life experience to one or the other psychological construct, psychological phenomena or philosophical orientation they will provide to it.

So, we will first start with ancient root that people have tried to trace and then we will move forward.

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 Some trace it back to two millennia B.CE. connecting it to the ancient Indian texts such as the Vedas and Upanisads (1500-600 BCE).

Misra & Paranjpe (2012)

- · Contributions of philosophers such as
 - Krishna Chandra Bhattacharyya (1875-1949)
 - S. Radhakrishnan (1888–1975)
 - B.G. Tilak (1856-1920)
 - Aurobindo Ghose (1872-1950)
- Highlighting significance of their work in understanding of psychology in the Indian tradition.

If you look at the work of Misra and Paranjpe 2012 they have traced back up to 2 millennia B.CE connecting that the Indian texts basically the Vedas and Upanishads. They are the ancient roots of psychology and is specifically you would find mention of certain philosophers like Krishna Chandra Bhattacharya, like Sir Palli Radhakrishnan, Bal Gangadar Tilak and Aurobindo Ghose and they have in this very work, they have tried to highlight this significance of their work in understanding psychology in the Indian tradition. So, you can of course, if you want you can refer to this very work and you can read the full detail there.

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Psychology in India
 Sri Ramana Maharshi's Advaitic method of meditation and karma yoga (Path of Action) by Tilak.

Paranjpe (2008)

Hymns of the Vedas have been interpreted signifying the psychological significance of the parables.

Gita has been considered one of the ancient books on counselling.

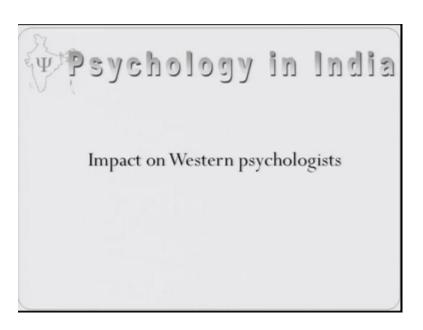
Dalal (2011)

One of the old work of Paranjpe 2008 war where he has also know traced at how the work of Sri Ramana Maharshi's advaitic method of meditation and karma yoga, and the path of action by Balgangadar Tilak how this can be considered as one of the ancient roots of psychology in India. If you look at the work of Dadal 2011 war, he has talked about know the hymns of Vedas and how it has been interpreted signifying the psychological significance of the parables. He also go to the extent of saying at Gita basically was the first ancient book on counseling and remember all these traditional books that have been referred here they are still survive in the memory of people here, and people barrow ideas from these books these ancient texts.

If you look at the work of Paranjpe, Paranjpe Misra and Dalal all three of them that I am referring to here, you would be able to connect that the modern concept of psychology that we are talking about here you can very easily trace them back to the ancient point of origin say in the Indian culture.

The second aspect of psychology in India is the impact of on the western psychologists.

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Those Indians who worked on certain concepts and then they did influence the western psychologists.

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Psychology in India

- Impact of SwamiVivekananda's talks in 1883 at the world conference on religions in Chicago on William James.
- · How it influenced his ideas about the higher states of consciousness.

-Taylor (1988)

- Prasad (1935) examined the responses to an earthquake in Bihar, and published a comparative analysis of earthquake rumors.
- This provided basis for Leon Festinger's (1951) cognitive dissonance theory.
- Jamuna Prasad's work was published even before Cantril (1940), Allport and Lepkin (1945) and Allport and Postman (1947) but came to limelight later when it was rediscovered by Festinger in connection with cognitive dissonance theory.

Important among them is one of the references that I am taking here of Taylor 1988, where he says that Swami Vivekanand's talk in 1883 at the world conference on religions in Chicago heavily influenced William James, and the concept of higher states of consciousness at James talks about this vary idea was basically conceived because of the impact of Swami Vivekanand's talk. One of the very interesting work on rumors that was proposed by Jamuna Prasad and this work was basically examining the response to an earthquake in Bihar and this vary work was published in the British journal much later this provided the base for Festinger's cognitive dissonance theory.

Now, Jamuna Prasad's work which was published in 1935, this came even before what we call the reference that you find of central in 1940, Allport and Lepkin in 1945 and Allport and Postman in 1947, but Prasad's work got recognition when it came to now becoming the base line for Festinger's cognitive dissonance theory. The reason I am talking about this theory here is that whenever you read a book in psychology the modern text books, you do read cognitive dissonance theory, but none of the book talks about this very seminal work of Jamuna Prasad which basically provided the base line for cognitive dissonance theory.

So, we should take a pride in this, we should understand that there was an Indian psychologist who worked on phenomena within this national boundary and this heavily influenced one of the concept developments in the west.

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- Incorporating Lewin's field theory, Asthana (1960) described the process of perceptual distortion in the light of gestalt and learning theories.
- Kothurkar (1968) challenged the S-R theory of learning.
- Sheodan Singh's seminal work on urban monkey published in Scientific American influenced other Western researchers

- Zuckerman (1981)

Incorporating Lewins field theory, H S Asthana in 1960 he described the process of perpetual distortion in the light of gestalt and learning theories. In 1968 you will find Kothurkar's work which challenged the stimulate response theory of learning and I am referring to Zuckerman's work in 1981. Sheodan Singh seminal work on the urban monkey which was published in scientific American, it heavily influenced the western researchers.

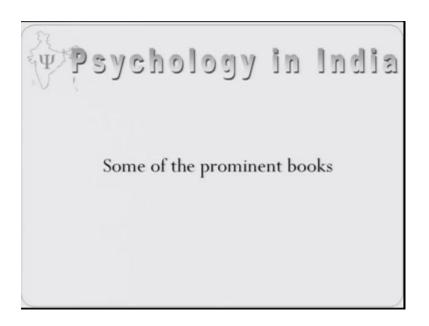
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Psychology in India

- The work of B.S. Gupta (Gupta, 1976, 1977, 1990; Gupta & Kaur, 1978; Gupta & Nagpal, 1978; Gupta & Shukla, 1989; Nagpal & Gupta, 1979) of Banaras Hindu University has been cited by many Western scholars including Eysenck (1981).
- Suresh Kanekar's work on Fritz Heider' attribution theory was also well received.
- Extending the earlier work on PASS (Planning, Attention, Successive, and Simultaneous Processes) theory, Das et al. (2000) have brought out its significance in various cognitive functions.

So, you can find whole lot of Indians who have influenced the western psychologists, the work of B S Gupta which was societed by many western scholars including Eysenck himself in 1981. Heider's attribution theory the work that was done by Suresh Kanekar on this attribution theory was also well received in the west, and J P Das and colleagues when they came forward with their pass modal this is again a theory which has heavily influenced the western psychologists. So, you would find that right from say very old at 1935 Jamuna Prasad's work I took into count, right from there till recent times 2000 and even later J P Das's work and you realized at there are few psychologists within the country whose work have now heavily influence the psychology in the west and the western psychologist have barrowed ideas from here or they will corporate it in their conceptualization.

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Let me talk about some of the prominent books were you can find very good reference to psychology especially in the Indian context.

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Psychology in India

- · Indian Psychology: Perception (Sinha, 1934)
- Indian Psychology: Cognition (Sinha, 1958)
- · Development of psychological thought in India (Rao, 1962)
- Indian Psychology (Safaya, 1975)
- Theoretical psychology: The meeting of East and West and Self and identity in modern psychology and Indian thought (Paranjpe, 1984)
- Self and identity in modern psychology and Indian thought (Paranjpe, 1998)
- Elements of Ancient Indian Psychology (Kuppuswami, 1985)

Indian psychology perception by Sinha in 1934, Indian psychology cognition again by the same author in 1958 development of psychological thought in India by Rao, Indian psychology by Safaya, theoretical psychology the meeting of east and west, and self an identity in modern psychology in Indian thoughts by Paranjpe, self and identity in modern psychology in Indian thought again by Paranjpe - the first one was 1984 and the second one was 1998.

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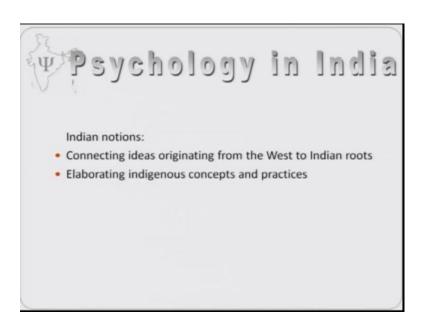
Psychology in India

- Ethics in management: Vedantic perspectives (Chakraborty, 1995)
- Culture, socialisation and human development: Theory, research and applications in India (Saraswathi, 1999)
- Perspectives on Indigenous Psychology (Misra & Mohanty, 2002)
- Consciousness, Indian Psychology and Yoga (Joshi & Cornelissen, 2004)
- Towards a Spiritual Psychology (Rao & Marwaha, 2006)
- Handbook of Indian Psychology (Rao, Paranjpe & Dalal, 2008)

Elements of a ancient Indian psychology by Kuppuswami in 1985. Ethics in management Vedantic perspectives by Chakraborty; culture, socialization and human development theory research and application in India by Saraswathi, Perspectives on indigenous psychology by Misra and Mohanty, Consciousness Indian psychology and yoga by Joshi and Cornelissen, Towards a spiritual psychology by Rao and Marwaha and Handbook of Indian psychology by Rao, Parajpe and Dalal.

You would find very interesting phenomena - there are certain Indian notions and you would find that psychologist within this country have done two types of work primarily.

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They have tried connecting ideas originating from the west to the Indian roots, many psychologist have done that. And another set of psychologist in the country who are who have basically know taking these Indian notions and they have elaborated indigenous concepts and practices. So, either you take indigenous concepts practices and then try to present it or connect it to the western psychological propositions or you take ideas from the west and connect it to the Indian roots.

Again I am referring to some of the important work here which has followed these two traditions.

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- Indian science of affect (Das, 1908)
- · Nurturant task leadership (Sinha, 1980)
- · Selfhood and intergroup relations (Nandy, 1983, 2004)
- Self and identity (Paranjpe, 1984, 1998)
- Integral psychology of Sri Aurobindo (Sen, 1986)
- Values in managerial transformation (Chakraborty, 1995)
- Violence (Kakar, 1995)
- Indigenous healing practices (Kakar 1996)
- · Bhakti (devotion to God) (Paranjpe, 1998)
- Outlook of cognitive processes from Sāmkhya Yoga perspective (Rao, 2002, 2011)

Indian science of affect by Das, Nurturant task leadership by G P Sinha, Selfhood and intergroup relations by Nandy, Self and identity by Paranjpe, Integral psychology of Sri Aurobindo by Sen, Values in managerial transformation by Chakraborty, Violence by Sudhir Kakar, Indigenous healing practices again by Sudhir Kakar, Bhakti that is devotion to god by Paranjpe, Outlook of cognitive process from Samkhya Yoga perspective by Rao.

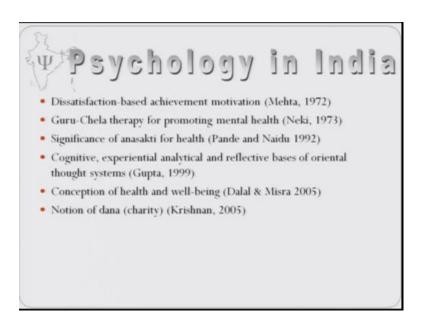
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Psychology in India

- Integral intelligence (Srivastava & Misra, 2007).
- Indian typology of personality (Krishnan, 1976/2002)
- · Lajja (shame) (Menon & Shweder, 1994)
- Basic cognitive processes eco-cultural settings (Mishra, 1997)
- · Hindu parents' ethno theories (Saraswathi & Ganapathy 2002)
- Scope and substance of India psychology (Rao, 2005)
- Implications of ahamkāra (Salagame 2011)
- · Native cognition in Himalavas (Pirta, 2011)
- Dependency proneness (Sinha, 1968)
- Self in the Sufi tradition (Beg, 1970)

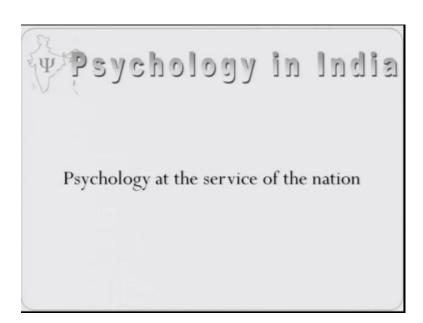
Integral intelligence by Srivastava and Misra, Indian typology of personality by Krishnan, Lajja the concept of shame by Menon, Basic cognitive processes eco-cultural settings by Misra, Hindu parents ethno theories by Saraswathi and Ganapathy, Scope of substance of Indian psychology by Rao, Implication of ahamkara by Salagame, Native cognition in Himalayas by Pirta, Dependence proneness by Sinha, Self in the Sufi tradition by Beg.

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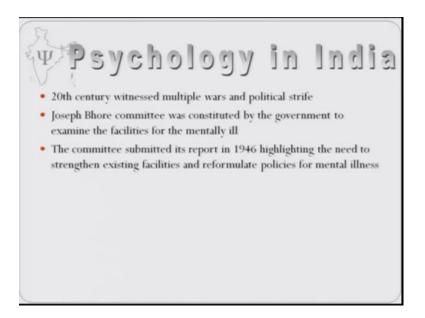
Dissatisfaction based achievement motivation by Mehta, Guru-Chela therapy for promoting mental health by Neki, Significance of anasakti for health by Pande and Naidu, Cognitive, experiential analytical and reflective bases of oriental thought system by Gupta, Conception of health and wellbeing by Dalal and Misra and Notion of dana that is charity by Krishnan.

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Now, having understood know how psychology world, how people in India try to working in this vary area I will take you to point in history where in my intention is to show at psychology has been at the service of the nation.

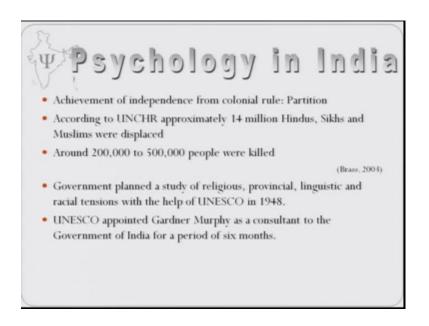
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20th century basically witnessed multiple war and political strife, and the board committee was constituted by the government to examine the facilities for the mentally ill. The committee submitted it is report in 1946 highlighting the need to strengthen

existing facilities and reformulate policies for mental illness, this for just before independence.

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Along with independence came a big divide patrician of India into India and Pakistan. According to the UNCHR report bras has estimated approximately 14 million Hindus, Sikhs and Muslims were displaced and somewhere between 2 lakhs to 5 lakhs people were killed in this process. Government at that time planned to study religious provincial linguistic and racial tensions with the help of UNESCO this was just one year after independence in 1948, government of India made this request and the UNESCO appointed Gardner Murphy as a consultant to the government of India for a period of 6 months. What Murphy did? He came to India and then he constituted his team, couple of Indian psychologist who joined this team and I am going to share with you the type of project that was undertaking at that time. Basically 6 teams were formed.

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Psychology in India

- 6 teams were constituted for this along with five other projects.
- 1st "A study of the attitudes of (a) Hindu residents (b) Hindu refugees (c) Muslims, towards present Government policies regarding communal matters"

C.N. Vakil, School of Economics and Sociology, Bombay University as leader of the research team.

 2nd "A study of sources of insecurity among members of a minority community".

Kali Prasad, Department of Philosophy and Psychology, Lucknow University was the leader of the research team.

The first team with in bracket is know the title of their study - The study of the attitude of Hindu residents, Hindu refugees, Muslim towards present government policies regarding communal matter, this was this study was taken up by C N Vakil of School of Economics and Sociology as a team leader and he was from Bombay university.

Second study the study of sources of insecurity among members of a minority community, this work was taken up by Kali Prasad, he was a team leader and he was from the department of philosophy and psychology from Lucknow university.

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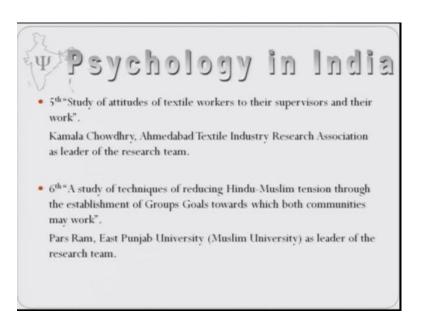
Psychology in India

- 3rd "A study of villages in Bihar exemplifying (a) high (b) low general level of social tension utilizing psychological techniques".
 H.P. Maiti, Patna University as leader of the research team.
- 4th "Study of Hindu-Muslim and inter-caste tensions in West Bengal and their bearing on the integration of communities, by means of anthropological and psychological techniques".

B.S. Guha, Department of Anthropology, Government of India as leader of the research team.

The third team, the study of the villages in Bihar exemplifying high, low general level of social tension utilizing psychological technique H P Maiti, Patna university was the team leader. The forth study the team leader was B S Guha who was from the department of anthropology government of India, he was the leader of the team and this team the 4 team they took up the study of Hindu, Muslim and inter-cast tension in West Bengal and they are bearing on the integration of communities by means of anthropological and psychological techniques.

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The 5th team Kamal Chowdhry of Ahmadabad textile industry research association was the team leader and this very team took up the study of a attitudes of textile workers to their supervisors and their work. And the 6th study was taken up by Pars Ram of East Punjab university as the leader and they took up a study of technique of reducing Hindu-Muslim tension through the establishment of group goals towards which both communities may work. The reason I am sharing this with you that immediately after independence you realize that government of India recognized the beauty of taking the services of the psychologist and all these 6 studies which were basically psycho social in nature, more to do with know the service of the society and psychologist were a taking into count.

Second reason for sharing this was that if you look at the teams and if you look at know who was doing what which region of the country they belong to you realize that it was a

nationwide spread Bombay, Ahmadabad, Patna, Lucknow, East Punjab from everywhere you had the teams coordinating and working on one or the other aspect.

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- Besides these six teams five other projects were also initiated.
- V.K. Kothurkar, University of Poona-"An experiment in the reduction of inter-caste tension among secondary school students".
- Radhakamal Mukerjee, University of Lucknow-"A sociological and psychological study of inter-caste hostilities (a) in the villages of U.P. (b) among textile operatives in Kanpur".
- Hilda Raj (from Anthropology) & L.C. Bhandari (from Psychology), Delhi University- "A study of characteristic differences between Hindus, Sikhs and Muslims in the manner of handling aggressive impulses arising from frustration".

Now, besides these six teams five other projects were also initiated. V K Kothurkar, he we had refer to his work sometime back from the university of Poona - he took up the work on the an experiment in the reduction of inter caste tension among secondary school students. Radhakamal Mukerjee who has heavily worked in the area of sociology from the Lucknow university, he took up a study on a sociological and psychological study of inter caste hostilities in the village of UP among textile operatives in Kanpur. Hilda Raj from anthropology who was also assistant by L C Bhandari from psychology of Delhi university they took up a work titled a study of characteristic differences between Hindus, Sikhs and Muslims in the manner of handling aggressive impulses arising from frustration.

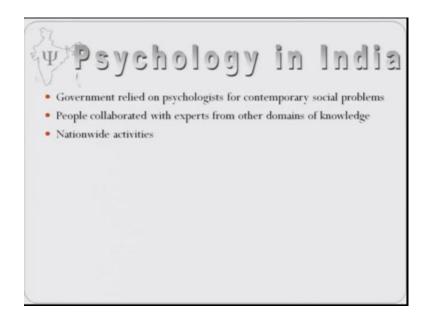
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- G.D. Boaz, Madras University- "A study of the part played by textbooks in the development of tensions"
- B. Kuppuswamy, Presidency College, Madras-"Study of sources and forms of language tensions with special reference to Telugu and Tamil".

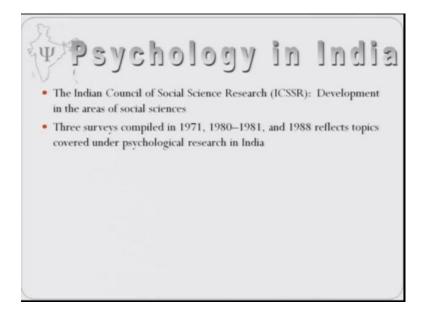
J D Boaz of Madras university, his work was a study of the part played by textbooks in the development of tensions and Kuppuswamy of presidency college Madras he took up the study titled study of sources and forms of language tensions with special reference to Telugu and Tamil. Again you see know Madras, Delhi, Lucknow, Poona, Bombay, Ahmadabad, Patna, Lucknow, East Punjab whole lot of spread. So, there was some very good tie up between the psychologist at that point in time and government did not recognize their importance. Even Gardiner when he came here he was a foreigner, not so aware of the harsh realities of this very country and it is cultural contest and see how many psychologist came there and work together.

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Now, government did rely on psychologist for contemporary social problems. If you look at contemporary changes if you look at what is happening in the recent time, you would largely find at there is an absence of psychologist, in policy making in terms of assisting government agencies or other agencies know in terms of looking forward at the contemporary social problem, so big diversionist in place. Second, what you find is at people collaborated with experts from various domain of knowledge and of course, it was a nationwide activity.

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Indian council of social science research which is an organization of government of India which caters to the development in the area of social sciences with the help of ICSSR three surveys have been complied, and you would find one which refers to 1971, second 1981 and third 1988. These three surveys they basically know reflect on the topics covered under psychology, different type of research that people have done, you would find an extortive survey. This was the third survey the forth survey has not at come forward, but then if you want to look at second resources you cannot look at these three surveys and you would know exclusively come to know what psychologist have done in this country the topics that have looked at the type of processes and all other details you will find there.

So, with this we complete our discussion on the major milestones globally as well as within the country and now in our third lecture that we would be talking about the methods that psychologist have broadly adapted to understand the psychological principles.