# Selected Topics in Psychology Society, Culture and Psychology Prof. Ramadhar Singh Department of Humanities and Social Sciences Indian Institute of Technology, Kanpur

# Lecture - 03 Psychology: Emerging of a discipline

So, we would continue with our discussion on the contemporary development in France. Ah What I was know trying to emphasized was that it was actually the need of the contemporary society at the time to work towards the identification of towards the wellbeing of people who were considered as (( )) minded or mentally disorder. And therefore, it was the intervention from the part at the part of the government, that a commission was you know constituted, the commission request Binet and Simon to be instrumental in developing a psychological tool. All I am trying.

All I am trying to say is that at need not been there in contemporary society at the (()) government not become proactive at that time probably these measurements tool would not have a reached psychology at that pointed time.

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Now, will continue with the binet simon scale for some time these landmark know assessment tool was once again now will you know that nineteen hundred five simon scale in nineteen hundred five binet simon when you came for what these scale it had 30

tests I am just giving you the sample items here for example, the first one was follows a moving object with the eye second item grasps a small object which is touched item number twenty eight for example, reverses the hands of a clock item number twenty nine after paper folding and cutting draws the form.

Of the resulting holes Now, interestingly binet-simon scale (()) did serve the purpose of assessment of severe mentally retardate to high level of gifted children, but an important thing it is to be looked at let binet simon did not give the method of a computing the total score. So, that is the interesting thing the usually in the psychological measure. So, finally, have a total score.

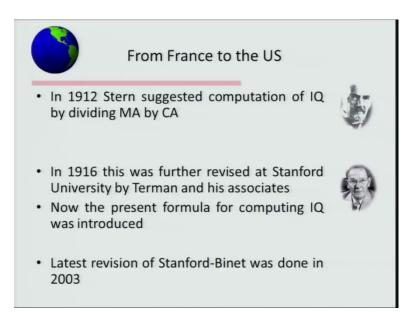
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So, that was not provided and just three years later nineteen hundred eight binet simon revised their scale. So, now, instead of thirty the revised version had fifty eight tests they also introduce the concept of mental level and off course has scoring method was also proposed. So, that way it is again another mild store (( )) towards making psychology scientific discipline it is not only assessment it is actually testing the mental.

Level of the participant and it is also about the method of scoring a particular (()) critical tool. So, these is the interesting development that way in nineteen hundred eleven the third version of the binet simon scale came, and now instead of being useful only for children now the scale was extended to the adult range also and a new method of scoring was introduced unfortunately binet died in that year. So, 1911.

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But then just the following year that is nineteen hundred twelve stern suggested the concept of computation of Iq by dividing the mental age by chronological age and in nineteen hundred sixteen binet simon scale was further revised at standford university by terman and his associates and now.

The presence formula was provided and these formula was what is being used now where you have m a upon c a into hundred. So, that was the technique that came for what at that time, but what is interesting to know is nineteen hundred five binet and simon comes for what (( ))) test and if you look at know the revision has taken place the let us revision of the stadfard (( )) binet test was done in two thousand and three. So, that is an interesting development you can see another development that to place an u s and till now know we were talking about how from france these will know test move to the u s



#### Developments in the US

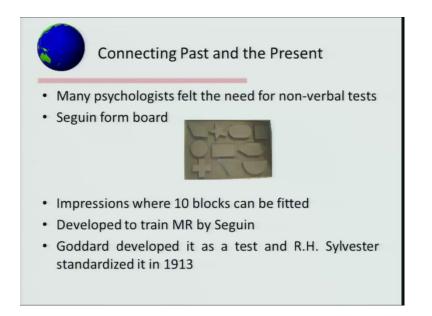


- In 1906, Vineland Training School, New Jersey, asked Henry H. Goddard to study classification and education of "feebleminded" children
- 1908 Binet-Simon scale was his reference
- The original French scale was translated to English
- In 1910, he was asked to examine immigrants in Ellis Island
- Now the scale was translated into Yiddish, Hungarian, Italian, Russian, yet original French norms were used for interpretation

Another interesting development that took place in the u s was that in nineteen hundred six the vineland training school in new jersey they ask goddard to study classification and education of. Feeble minded children and goddard his reference point was the binet simon scale that was developed in nineteen hundred eight nineteen hundred five and then the first revision. So, that was the reference point for goddard what was interesting was that to suit the need of the vineland training school the original French scale was translated into English. So, translation and in nineteen hundred ten when goddard was further asked by the departments of immigration to examine the immigrants in the ellis island these know original French test which was translated into English was further translated into Yiddish Hungarian Italian Russian and other languages know, but what was very interesting to note was that you have a French test.

That test is translated into English that test is translated into few more languages to suit the need of at the ellis island, but the reference that was used for interpretation (()) norm that was still the function of. So, technically speaking when you look at know scales were though you have certain norms on the basis of the issue (()) loss (()) you realize that know although in terms of development of scale psychology may made a (()) in terms of translation yes very know big change had come into being, but in terms of adaptation of the test these was as still an issue and which norm to be used technically speaking was still acquisition were psychology was lagging (()), now let we make an attempt to connect the past of the present many. Psychologists felt the need for non verbal test ok.

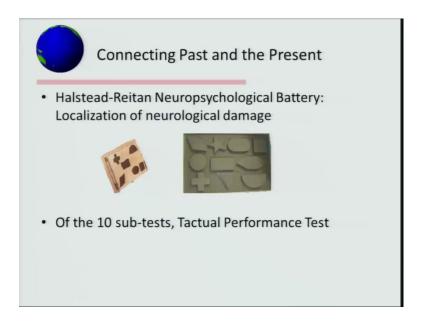
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And I am sure many of you must have seen these seguin form board in your labs where actually there were impressions where ten different blocks can be fitted on your screen you can see different different forms are there and these were the impressions were blocks can be fitted now seguin form board test was actually not developed as a test rather it was simply developed to train people with mental retardation the children with mental retardation, but then goddard who was know actually walking with feeble mindedness who was use nineteen hundred eight version of the binet simon scale who was also in instrumental translating it into multiple languages because of the need of the immigrance at the ellis island he (( )) developed seguin form board.

The form of a test and then little later it was Sylvester who standardized it in nineteen hundred thirteen. So, even non verbal test test upon (( )) you realize that the standardization of such test also started taking place a psychology now seguin form board test you will find it most of the labs all these schools uniformly till date if you visit the specially schools for mentally retarded (( )) heartism in c p you would realize that these test are been used interestingly

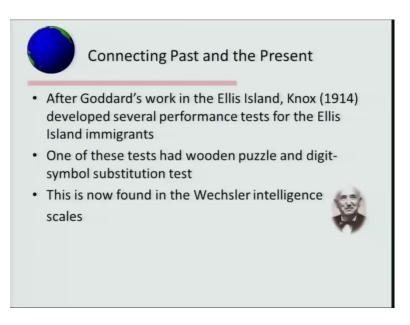
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If you refer to the development in neuro psychology and if you look at the halstead reitan neuro psychological battery which actually makes an attempt know to localize the neurological damage you can identify using these test ok.

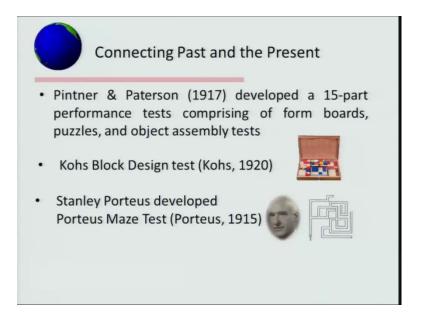
Interestingly if you refer to the development in neuropsychology and if you look at the Halstead-Reitan neuropsychological battery, which actually makes an attempt to localize the neurological damage. You can identify using this test ok. Now, of the ten sub-tests, of the Halstead-Reitan neuropsychological battery, you find Tactual performance test. And on your screen, you can see how much resemblance is there between the (( )) test and the Tactual performance test of Halstead-Reitan neuropsychological battery. So, you find that past and present, the both exist together; and the heavy influence of the past and the present.

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Now, after Goddard's work in the Ellis Island, it was Knox, who developed several performance tests for the Ellis Island immigrants ok, and one of these tests there were wooden puzzle and digit-symbol substitution test. Now, you find know that these two things are still available when you look at the Wechsler adult intelligence scales. So, Wechsler intelligence scales, which is recent development in certain sense, that it is you know with all those revisions it is one of the wildly test in psychology. You can again relate it that Goddard's work, Ellis Island, form board then wood puzzles, digit substitution test and then how you can again link it to a Wechsler intelligence scale.

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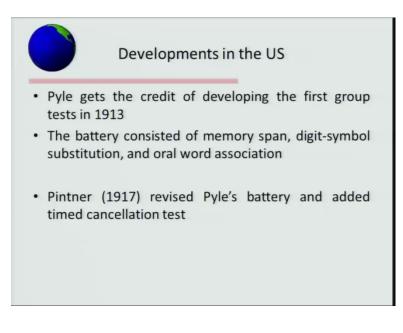
Another interesting thing was that Pintner and Paterson, they developed a fifteen performance tests comprising of the form boards, puzzles, and object assembly tests. You all know Kohs block design test ok, you also known that in psychology we do use the maze test ok. Now, Stanley Porteus, he did developed the Maze test in nineteen hundred and fifteen. Kohs block test was developed nineteen hundred and twenty ok. Pintner and Paterson, they developed their fifteen part performance test in nineteen hundred and seventeen ok. And you find that Kohs block test, the maze test, they are still available in psychology, they are still being used.

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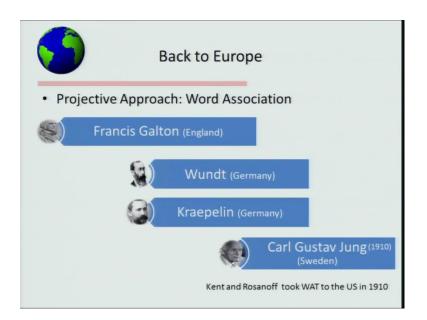
The new test of course, in psychology that you find they are always validated with respect to their correlation with these tests that we have referred too. And this way you find a strong bond between the past and present in terms of techniques, in terms of tools, and in terms of standardization of their psychological tools.

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We go back to the US, Plye gets the credit for developing the first group tests in nineteen hundred and thirteen ok. Now, remember that know nineteen hundred and five in the first formal test came into be a big jump that was supposed to be single individual and now comes nineteen hundred thirteen the group tests. Now, the battery consisted of memory span, digit-symbol substitution, and oral word association. Pintner revised Pyle's battery and added the timed cancellation test.

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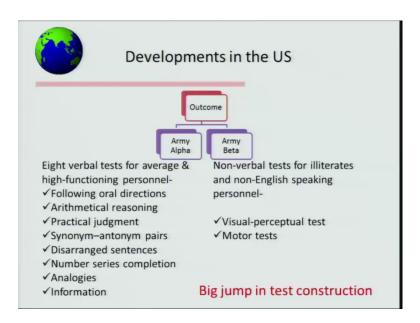
If you go back to Europe, there was again attempt you know in terms of a developing projective approach towards psychological assessment, and the famous word association came into being. Again word association test that we see ok, is the contribution of Carl Gustav Jung ok,, but then you can trace it back to Francis Galton, who was you know instrumental giving the concept and then Wundt and Kraepelin who for the reward this very concept and then Jung in Sweden finally, came forward with it in nineteen hundred and ten. And the same year, the word association test was taken back to the US by Kent and Rosanoff.

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But meanwhile, big change to place in the history of human kind in nineteen hundred and seventeen, US entered World War one. And they have one point seven five million recruits. One of the psychologist Robert Yerkes, he convinced the US government that they should administering intelligence tests to all the recruits and the purpose was very simple that know on the basis their performance on intelligence test, these recruits can be classified and they can be assigned certain specific task. The government was convinced and you would be amazed to know that Yerkes finally, was know included in the army forces at the rank of Kernel. So, he joined the army forces and he constituted the committee and interestingly the members of the his committee included Goddard and Terman, both of them had already established their credential by that time in psychological assessment. Now, the outcome of this exercise of Yerkes was the popularly called army alpha, and army beta test know.

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Now, army alpha had eight verbal tests for average and high-functioning personnel, which included following oral directions, arithmetical reasoning, practical judgment, synonym-antonym pairs, disarranged sentences, number series completion, analogies, and information. Whereas army beta was non-verbal tests for illiterates and non-English speaking personnel, and it largely included visual-perceptual test and motor tests. Now, army alpha and army beta was a big jump know in some in area of test construction. By this time, psychologist had proven to various governments in France and in US, both the places; repeatedly psychologist succeeded convinced the society and the government that they can be off important. They can serve the basic purpose that is actually needed at their time, contemporary need of the society, contemporary need of the government with all scientific rigors, it can be achieved. So, this was that way know big jump.



The end of the World War one,. So, interesting demand in the area of industry and education both, now group testing in the army influenced the National Research Council, which was a government organization of scientists, to develop the National Intelligence Test. And interestingly the National intelligence test was administered to seven million children in the US during the nineteen hundred and twenties. It also influence the development of Wechsler Intelligence scales, Scholastic aptitude tests, and the popular graduate record exam – the GRE.

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For the purpose of testing college applicants. So, are interested getting admissions, College Entrance Examination Board – CEEB was also established; and CEEB was instrumental in the development, standardization and the validation of the test that you see write now such as the graduate record examination, the law school admissions test, and the peace corps entrance test.

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Developments in the US
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<ul> <li>In the 1930s machine scoring was introduced</li> <li>Contemporary developments challenged statistics</li> <li>Factor analysis emerged as an important tool</li> </ul>

Group testing in the army also influenced the development of Wechsler intelligence scales, and the Scholastic aptitude tests. You find thrice Wechsler intelligence scales has been referred know. So, you can see how development know is gradually influencing successive developments in the time frame. Now, interesting development started taking place in the nineteen thirties, machine scoring was introduced. Remember earlier you need a psychologist score, now you have machine scoring. Coming back as earliest nineteen thirties, and the major change that took place in the aligned domain was that all these contemporary development in psychology started challenging the statistics. So, many many new techniques in statistics developed and one of the major important development that took place was the emergence of factor analysis as a technique.

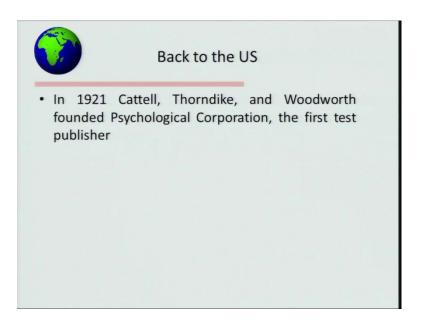
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From US we now again go back to Europe, where Hermann Rorschach in Sweden came forward with the Inkblot test what is now popularly called Rorschach Inkblot test, and this test came back as earliest nineteen twenty.

Similarly, you know Morgan and Murray, they came forward with the popular test what is called as TAT long back in nineteen thirty five ok. Now, you go to any clinic, clinical psychologist, psychiatrist, and you would find Hermann Rorschach Inkblot test being used. In variably in many recruitment processes, you find TAT being used; not only for this civil purposes, even defense recruitment you know that set of psychological test that they used for recruitment ok, there you find TAT being used. Another major mile stone, I would say usually it is ignored when we talk about the history of psychology was that you need a formal platform where know you will have these psychological assessment tools being made available to others.

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And again if you look back the history, you would realize that in nineteen twenty one, Cattell, Thorndike and Woodworth all three prominent psychologist, they founded the psychological corporation, and this corporation was the first test publisher. Now, of course,, you have large number of test publishers, you also have large number of you know houses which are involved into it. You remembered in the beginning I told you that although testing was a timid business ok; in the beginning, it has become big business now,, but you can again twist back to nineteen twenty one.

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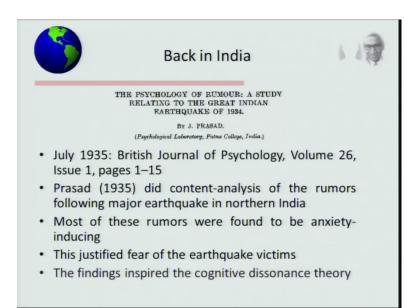
We now come back to India ok, and in this know session, I am primarily trying to conclude now and at although, all these development primarily was centered either in Europe or in the US. Although we historic list, it backs to China, but the major development took place only in Europe and US. But let me know share with you, the developments that took place in India, in nineteen twenty two, remember nineteen hundred and five was the time that we are known saying this is the major mile stone in psychology, Wechsler intelligence scales coming into the existence. In nineteen twenty two, Indian Psychoanalytic Society was founded by Girindra Shekhar Bose, and this society in nineteen twenty four got affiliated to the International Psychoanalytic Society, all these are pre independent.

Again of course,, the big achievement in certain sense, as back as nineteen twenty three, you find that Indian Science Congress, psychology was included as a section. The first association that is the Indian Psychological Association was founded a long back in nineteen twenty four; and the first Indian Journal of Psychology, came in nineteen hundred twenty five. So, these are interesting development you know, year after year, you know one significant change. Then nineteen thirty eight, Calcutta University started the Applied Psychology Wing; and the same year, you find that Jung, Meyers, and Spearman all three of them came to India to attend the Silver Jubilee Session of the Indian Science Congress ok, that way you know India could connected to the Western World. And in nineteen forty seven, the year when India got independence, was also the year when the second journal of psychology that is Samiksha was published.

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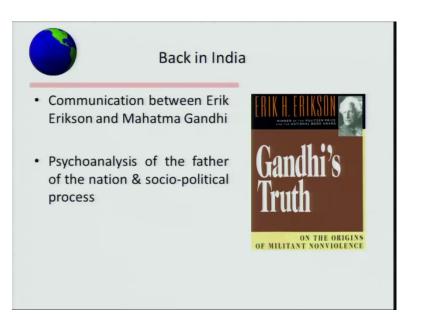


Now, post independence know you find two-three interesting things that took place. In nineteen forty seven, we became independence;, but independence was know achieved at the cost of a mass influx of refugees because of the communal riots. In nineteen hundred and fifty, the ministry of education hired this services of Gardner Murphy to investigate the causes of communal violence, and several Indian collaborators over there. And finally, this work was published in the form of a book in nineteen fifty three, the book was titled In the Minds of Men. You will find you know long description of all these know right from edited volume by Gardner Murphy, in the next talk where Prof. Ajit Dalal would be talking about all these historical development at length. In nineteen hundred and fifty the Ahmedabad Textile Industries Research Association – ATIRA, that was established. And very interestingly, you will find that Erikson and McClelland there were the frequent visitors to this institute. So, initially you found know that Jung, Meyers, and Spearman coming to India to attend the Silver Jubilee of Indian Science Congress. And again Erikson and McClelland, you can know find them in India.



But one of the remarkable you know development took place in India was this publications, The Psychology of Rumour: A Study Relating to the Great Indian Earthquake of nineteen thirty four. J.Prasad at Patna, published this work in nineteen thirty five. In the British journal of psychology, volume 26, first issue. And what he did was that he did content-analysis of the rumors that followed the major earthquake and you found most of these rumors were actually anxiety-inducing. This justified fear of the earthquake victims. What is very interesting to find that this very work of Jananth Prasad, actually inspired the whole known conception of the idea of cognitive dissonance theory by (( )). So, very very remarkable theory in psychology, the cognitive dissonance theory has its root in India.

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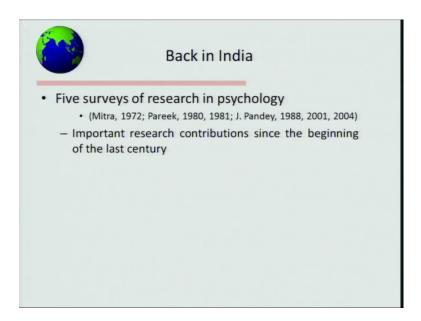
And another interesting thing you will also find is that the communication took place between Erik Erikson and Mahatma Gandhi ok. And later on, Erikson came forward with this book Gandhi's Truth. Primarily you will find rare piece why because you have the psychoanalysis of stall work, the Father of the Nation – Mahatma Gandhi, and the sociopolitical process ok. And one of the established spools of thought in psychology, psychoanalysis,. So, how psychoanalytic technique can be used to understand an individual and also a process ok,. So, that is an interesting contribution that India has made to psychology at large. Of course, we do not have the history of development in India the way; we have talked about either in France, in England, in Germany, Sweden, in the US. But of course,, India has made know certain progress in terms of know developing these psychological tools..

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And as you can see on your screen now, you have the compilation of the psychological measures that developed in India. The First Hand Book of Psychological and Social Instruments, this is the title by Udai Pareek and Venkateswara Rao. And then second and the third hand books by D. M. Pestonjee. And here you find the large number of psychological tools that are being talked about, and of course, you will have to know look at each of them with certain pinch of sort, because you would be looking at the standardization process, you would be looking at the norms ok, you would be looking at know their reliability and validity scores whether it is reported, whether it is not reported, how easily it is available and issues that still remains ok.

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And of course,, if you read the five surveys of research in psychology that has come forward. There you have the important research contribution since the beginning of the last century. So, how research in psychology has progressed right from the beginning till now, you will find in these five surveys of research in psychology and I was telling you right in the beginning that although it was dull and dry in the beginning, twenty years back that I experienced. I really you know found it extremely fascinating, and I found it very very relevant and I thought you know, I will put them together.

In a very brief period of time, making a journey of a hundred years of emerging of a particular discipline is extremely difficult, but I have tried in a small way, just to in a very very compressed way just to talk to you ok, how you can look the rigor, the process certain jerks, acceptance, rejection that psychology has gone through. But once again remember that it is the practical need of the society either demanded by the society or stated through the government which has know asked which has demanded which has make the psychologist know develop techniques, tools in provides on their techniques and unless and until know we look at the historical context it is very difficult to understand how strong the concept was, how know sound a small experiment was how robust development of very very small instrument was ok. And what were the limitations,. So, it is very important to look at this thing in the historical context.

In the following lectures, by Prof. Ajit Dalal, Prof. Grishwar Mishra and by Prof. J. B. P Sinha, we would be further know looking at historical development at the Indian front.