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Topic: Psychopedagogy

Part A: Cognitive aspects of the classroom:
Teacher's contribution:

Introductory chapter

Part A

Conference 1: The concept of intelligence

Conference 2 : Thinking, problem-solving and concept learning

Conference 3: The concept of creativity

Conference 4: The creative person

Part B: Social aspects of the classroom:
Students' contribution:
Why and how?

Assiduity (not attendance ,presence): great and persistent effort, constant personal attention and care.
Individual research papers.

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Introductory chapter

Psychopedagogy

1

Investigation of the human mind to understand human behaviour

2

- teaching science
- too vague
- teaching method
- could be included as a feature of didactics.

Different options of psychology

Experimental psycho Aim the discovery of general laws which rule the H.B. behaviour subdivided into different disciplines:



Different options of psychology

Experimental psycho: Aim: -discovery of general laws which rule the H.B. behaviour.

Subdivided into different disciplines:

1. Animal psycho → studies animal behaviour.
2. Psycho of the child → development of the child.
3. Psycholinguistics → behaviour and language.
4. Differential psycho → comparative study of individual differences.
5. Social psycho → study of group behaviour → individual within group.
6. Clinical psychology.
 - Study of individual from within.
 - Intrinsic approach.
 - Main reference → psycho analysis.
 - Freudian approach.

4 Relation between Psychology and Pedagogy

A teaching approach which takes into account the principles of psychology, that is:

- Observe
- Discover
- Analyse
- Understand

→ whom we are teaching

In order to:

- Choose more appropriate techniques, strategies, approaches..

To understand the learner, we need:

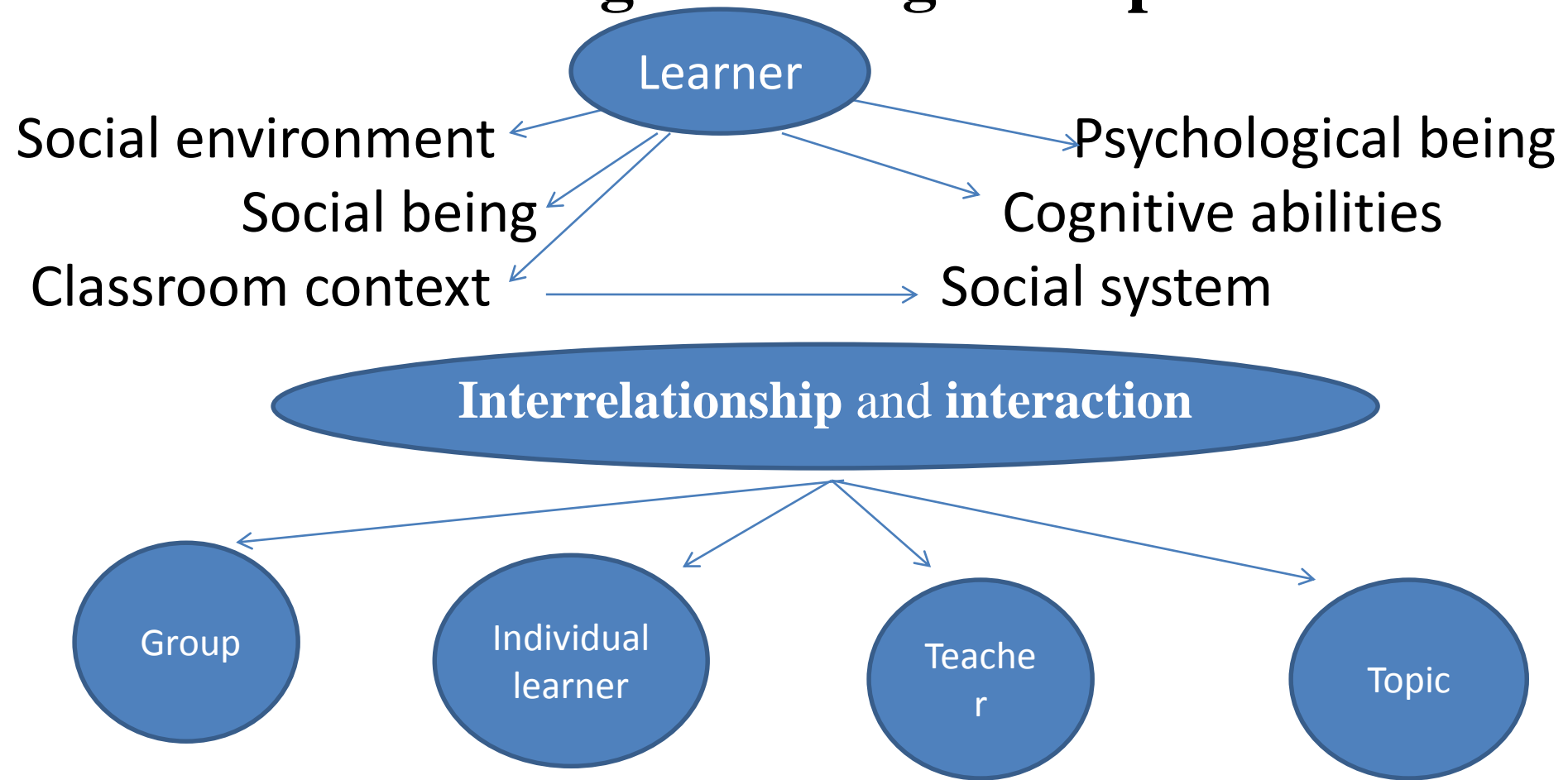
1. Considering his psychological structure and behaviour,
2. and understand him as a social being.

That is → **social psychology.**

This means that we need to:

- Investigate the main cognitive aspects of the learner,
- Study the main social aspects relevant to the individual learner.
- Ask the following question: what could be the contingent and positive pedagogical implications on the teaching-learning process ?

5 The Teaching-Learning Enterprise.



Here: moving from:
-topic-centered education.
-learner-centered education.
-learning-centered education.

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Many disciplines are overlapping and interacting:

- Psychology of education,
- Sociology of ed.,
- Philosophy of ed.,
- Psycholinguistics,
- Sociolinguistics,
- Etc....

Aim of the course:

Investigate the interrelated fields of psychology and sociology as the two attributes of mankind to see:

- their relevance to the discipline of pedagogy
- and, their pedagogical implications on the teaching-learning process,
- the ways to understand the behaviour of the individual as both a psychological and a social being.

The changing aspect of Pedagogy.

- the concept of the good teacher
- the good teacher of the 1960's is not necessarily the good teacher of the 1990's or of the new century.

Hence: explain concepts of **change, adaptation.**

The good teacher is:.....?

Cognitive aspects of the classroom

Seminar 1



- 1.Learning
- 2.Thinking
- 3.Problem solving
- 4.Achievement
- 5.attainment
- 6.Concept formation

it is none of these, **however** it affects them all **positively**.
 that is: it improves **performance**.

Concept of intelligence caused a considerable controversy

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intelligence is thought to be connected with achievement.



of importance in society and educational system



some people thought to be more intelligent than others.



led to a growing interest in individual development

2

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1. The concept of intelligence: definition (a PBL)

- No single definition.
- Many **opposed** definitions of INT.
- But point to the **results** of having it.

Thus, → a certain level of **performance** is taken as **evidence**.

Which means → the **better** you perform the **more** intelligent you are.

This approach is qualified by Karl Popper as: **methodological nominalism**

→ methodological nominalism is not interested in **WHAT** a thing really is and in defining its true nature, **BUT IN** describing **how** it behaves in various circumstances.

→ **So,** **what vs how**

Ex: what is Energy? Vs how can we make energy useful?

Methodological Nominalism(Popper) contrasts with Methodological Essentialism which discover the reality and essence of things (Plato).

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Considerable confusion was caused as to descriptions of INT.

However,

4 main views of INT can be retained:


Intelligence



1. INT as product 2. INT as process 3. INT as possession 4. INT as judgement

1.1. Intelligence as product: (Galton, Binet, Burt)

- INT. is seen as a name given to an intelligence test [explain: I.Q. and I.Q. test chronological age, mental age]
- Historically, it is the main accurate view.
- Significance of the Dvlpt of the **Psychometric** concept of intelligence.

 **Qs:** what does that mean? (students' reactions?)

 = Discussion.

 ➤ INT. is measured..

➤ INT. is quantified.

➤ We can determine who is Int and who is not.

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Presently: we tend to accept that all normal children are born with the same INT. Which they develop differently because they evolve in, and experience, different Social envirts.

Notion of equality of opportunity.

Explain: The notion of inequality between individuals which stemmed from the concept of **Mental Ability.**

- Galton's concern with Mental resources of the nation.
« You are wondernig what amount of coal the nation possesses and where it lies; I am wondering what mental abilities we possess and where it is to be found. »

(Explain and discuss)

Question: How would you pedagogically approach the **notion of inequality** resulting from the concept of **Mental Ability** ?

1.2. Intelligence as possession: (Spearman, Thurstone, Guilford)

- Notion of int. as product → int. As possession.
- People are thought to have a fixed INT → Can be assessed & measured.
 - leads to confusion with:
 - Attainment.
 - Achievement.

1.3. Intelligence as process: (Piaget, Ryle, Wertheimer)

The understanding of INT as product led to its consideration as a possession and brought psychologists to think of INT.

“ as an adverb rather than a noun ”.

- that is the **how** instead of **what**.
- INT. Indicates **HOW** a man behaves and not some specific **ability** he possesses.
- the how is associated with considering INT. as a **process**.

1.4. Intelligence as Judgement: (Jenson & Hudson)

- When a person is called **intelligent**, a judgement is made about the level of his **performance**.
 - He has done something **well**.
- INT.is considered as an evaluative term.
 - This has generated a long never-ending **debate**.

In that, a- to say that a person is intelligent is positive.
 b- to say the opposite is pejorative.

Concluding terms:

- ❖ INT is a polymorphonus and open concept.
- ❖ Innate Vs correlation with social status.
- ❖ INT tests are open to question.

Questions:

- Do we know what INT exactly is?
- Can we measure and quantify INT?
- Equal Vs unequal distrubtion of INT.

THERE IS EMPIRICAL EVIDENCE.

However  **no clear relation** between **EVIDENCE & INTELLIGENCE.**

Existence of correlations between tasks performed by people & INT.
can not be taken for granted in terms of **CAUSE & EFFECT.**

-The debate is still on.

-Sensitive issue in education.



WHY?

2. The development of intelligence:

a- Psychometric concept of intelligence.

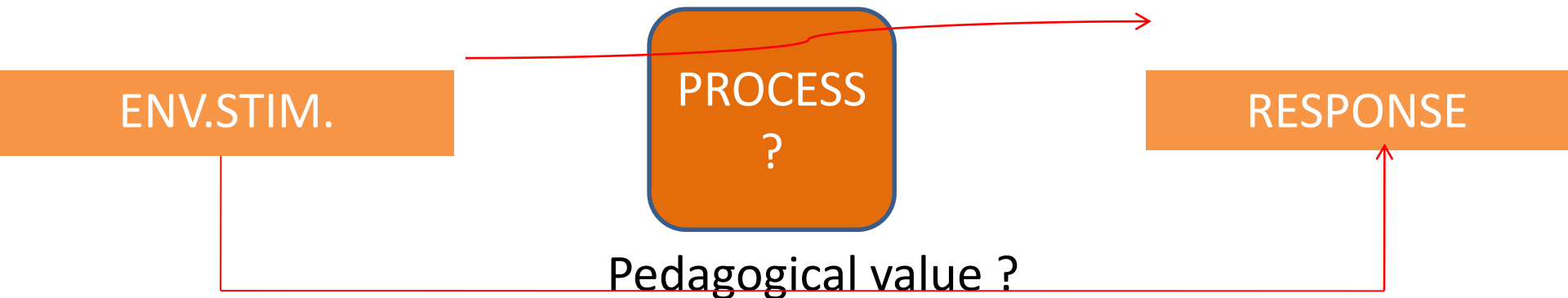
Study a group or large population to make predictions on individual performance.

b- Developmentalists:

Study the individual or small group to extrapolate to the general population.

In general:

Whenever a person responds to an environmental stimulus, some mediating process is posited any time the Env.Stim.is recognised and reacted to.



- **Three main centres of research (trends, schools) are concerned with this central process.**
 1. **Russia (ex USSR)**
 2. **Europe**
 3. **America (USA)**

2.1. Russian studies: (Pavlov, Luria,)

- Ideologically, Russians are committed to an environmentalist view of INT.
- Product of the environment.
- They deny the **validity** of INT testing.
- However, they show much interest in **higher mental processes**.
- This stems from Pavlov's work (1941).

- Pavlov studied, after his experiments on animals, language as a **REGULATOR OF BEHAVIOUR** and as a **SECOND SIGNAL SYSTEM**.

→ PAVLOV: Difference between

- Inborn reflexes
- Conditional reflexes (1st signal system)

→ LURIA:(1961) took up the Qs of language.

→ speech influences behaviour

Initiating responses
(positive)

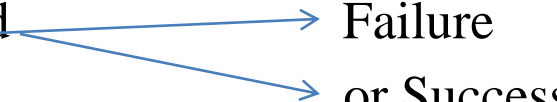
inhibiting responses
(negative)

Hence, language signals are internalised to operate in a self-regulation system

2.2. European studies: (Piaget)

- the most influential figure in European research.
- Piaget said 2 fundamental things:
 1. Action in itself admits of logic, therefore, logic stems from a of « **spontaneous organization of acts.** »
 2. In all fields of life (mental organic, social), there exist **totalities** qualitatively distinct from their **parts** and imposing on them an **organization.**

Then, he extended the concept of INT, beyond its being a product of testing.

- Tests indicated  Failure
or Success

PIAGET  recognition merits of INT. Tests

But  Question: what are the reasons for failure ?

And he went investigating the reasoning process, underlying: **right** and **wrong** answers of his subjects.

That is, asking what is:

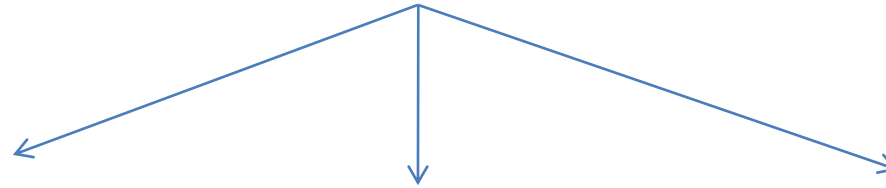
1. The reasoning process which leads to success ?
2. The reasoning process which leads to failure ?

And Piaget discovered that the simplest Qs (involving part and whole) presented for normal children up to the age of 11/12 difficulties unsuspected by the adult
He says, here:

« At last, I found my field of research. »

Qs: Any pedagogical implications ?

INT. As viewed by PIAGET



Concerned with qualitative changes in persons's thinking betw. **Infancy** and **Maturity**.

a **child's thinking** is diff. in kind from that of an **adult**.

His view of INT. is considered as illuminating and unique.

Led to  Four fundamental stages in child's life.

1. Sensori-motor —————> from birth to 2 years
2. Pre-operational —————> from 2 to 7 years
3. Concrete operations —————> from 7 to 11 years
4. Formal operations —————> from 11 to adulthood

Piaget's conclusion

to each stage corresponds a particular behaviour

Qs How can we teach a child whose thinking is different from ours ?
 What does Piaget teach us on a purely pedagogical viewpoint ?

2.3. American studies: (Bruner)

- A combination of Russian and European views.
- Bruner emphasises more than Piaget the influence of environment.
- Bruner's position: « We believe that intellectual growth can be understood only in terms of the psychological mechanisms that mediate it and that the explanation of growth cannot be effected by involving the nature of language, the inherent logic of child thought, or the push to growth without a corresponding external pull, for, given the nature of man as a species, growth is as dependent upon a link with external amplifiers of man's powers as it is upon those powers themselves. »

21 According to Bruner, the child represents (representations) the world in 3 different ways:

1. Initially, by **ENACTIVE** representation, when coping with the world by **HABITUAL ACTIONS**.
2. Secondly, by **REPRESENTATION** through **IMAGERY** (knowing something by means of **PICTURE** or **IMAGE**).
3. Finally, by **SYMBOLIC REPRESENTATION** (when action and image are translated into language).

Concluding terms:

- According to Bruner,
- The **INTELLECT** is defined as « Man's capacity to achieve, retain and transform knowledge to his own uses».
 - The idea of representation is the most fruitful way of describing its development.

Qs: Since we represent the world differently, can a standardised INT.test_in which much is a matter of social and environmental representations and hence differences_claim its accuracy and objectivity as to I.Q results and the decisions made in the light of these results?

➤ Still, according to Bruner,

The child is born with a basic capacity or latent power, but he requires external stimulus(i) to actualise it.

Qs: 1. What does that mean in concrete terms?

2. What pedagogical point is underlined here?

23 Conclusion

- Different and opposed views if INT.
- For research to go on → compromise → the following:
the child develops cognitive mediators (plans, conceptions, images) elaborated into either:
 - a. A **second signal system** (Pavlov).
 - b. Or/ **concrete and formal operations** (Piaget).
 - c. Or/ **symbolic representations** (Bruner).
- INT is characteristic of an **elaborated thinking** which is a result of development.
- Since DVPT. is open to environmental influences → people may vary in their ability.
- « Are the innate components unequally distributed? »
→ remains a question with **NO** answer.

- All normal people have **inborn reflexes** or **modes of functioning** they develop and use differently within different environments. This differential use cannot be INT. since it results in INT.

However,

It is certainly a factor contributed by the interaction of heredity and environment.

→ **And this is what makes the individual**

Qs: 1. how is the concept of INT. Perceived by Algerian school teachers?

2. Name some pedagogical outcomes of this very perception.

3. How would you tend to pedagogically use/ manipulate this concept?

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End of seminar one,
Thank you.