

Piaget's theory of Cognitive Development

Lecture 10

Psychologists interested in how cultural processes contributed to human thinking were puzzled by what they observed:

- Cognitive development believed to be universal
- BUT non-Western children performed poorly on tests
- **EVEN THOUGH** showed impressive skill in reasoning or remembering on tasks within their culture.

universalists:

- child development (Freud & Erickson)
- cognitive development (Piaget).

nature/nurture ?s

same:

- do people everywhere think the same way and to the same degree of complexity?
- Is there “primitive thinking” that is less advanced than European thinking?

Jean Piaget - Swiss psychologist, philosopher and teacher (1896-1980)

- cognition believed to be universal

The **Development** of thinking:

- Discovered that children don't think like grownups
- Older kids not smarter just think differently
- own kind of order and special logic
- Came to view cognitive development as a way of adapting to the environment

Most important idea in Piaget's theory - Structures:

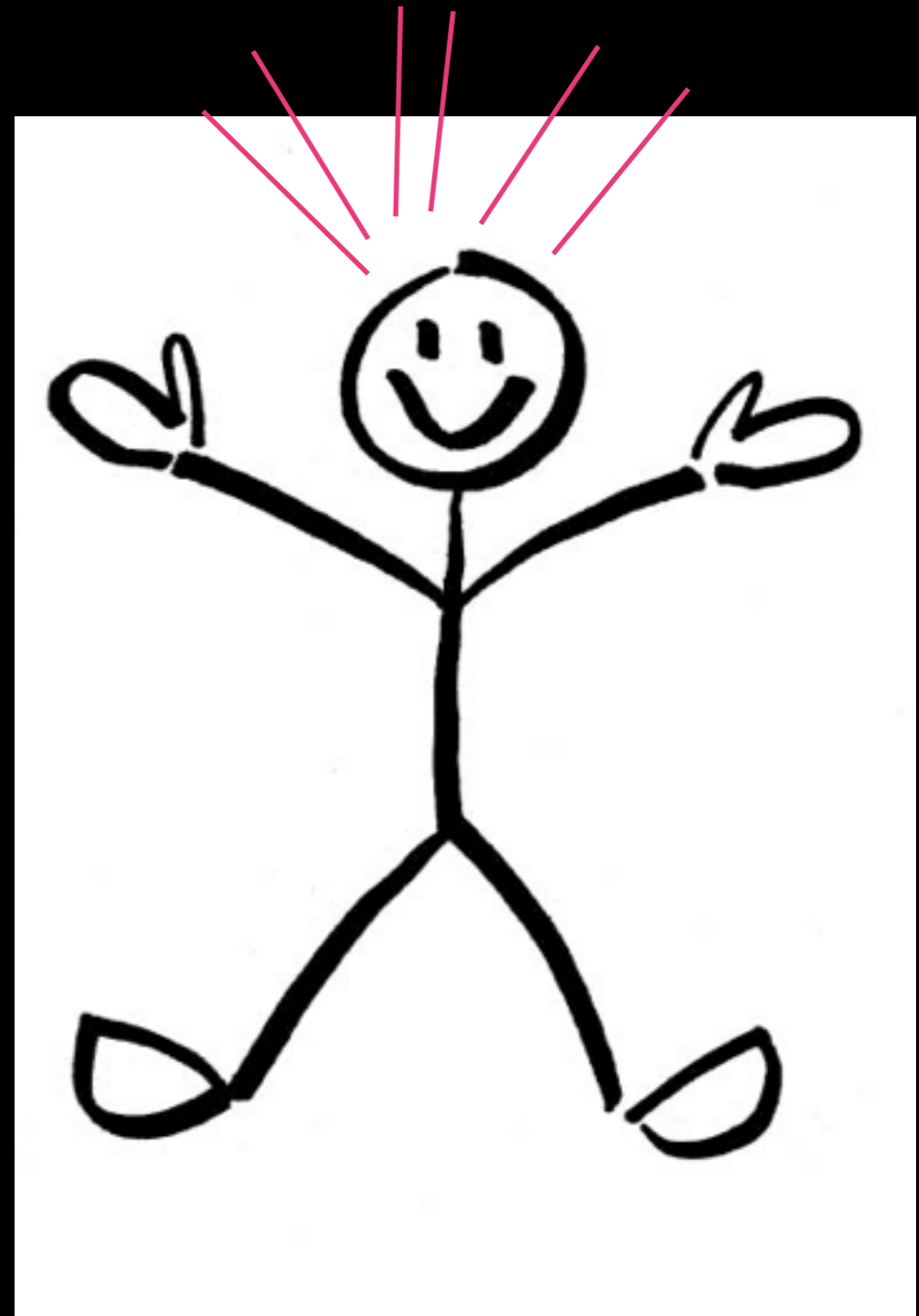
- Mental structures are derived from the dynamic interaction of the organism and the environment by means of a process called **self-regulation** or **equilibration**.

“constructionist” theory

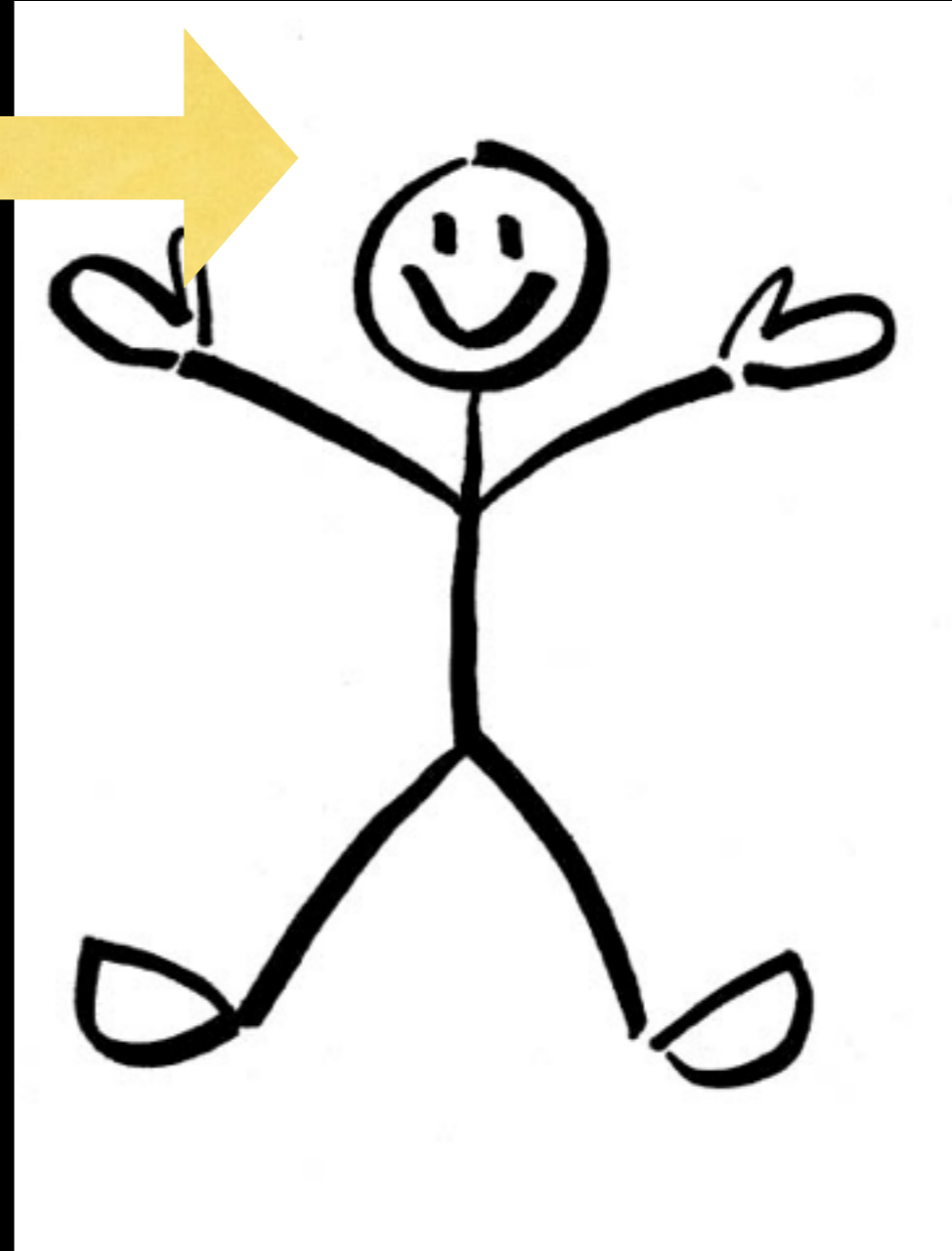
- structure comes from the organism’s own actions within the environment.
- this idea that the individual **constructs** the mental structure is underlying principle to all his theories

As opposed to:

“nativist” = unfolding
of innate knowledge.

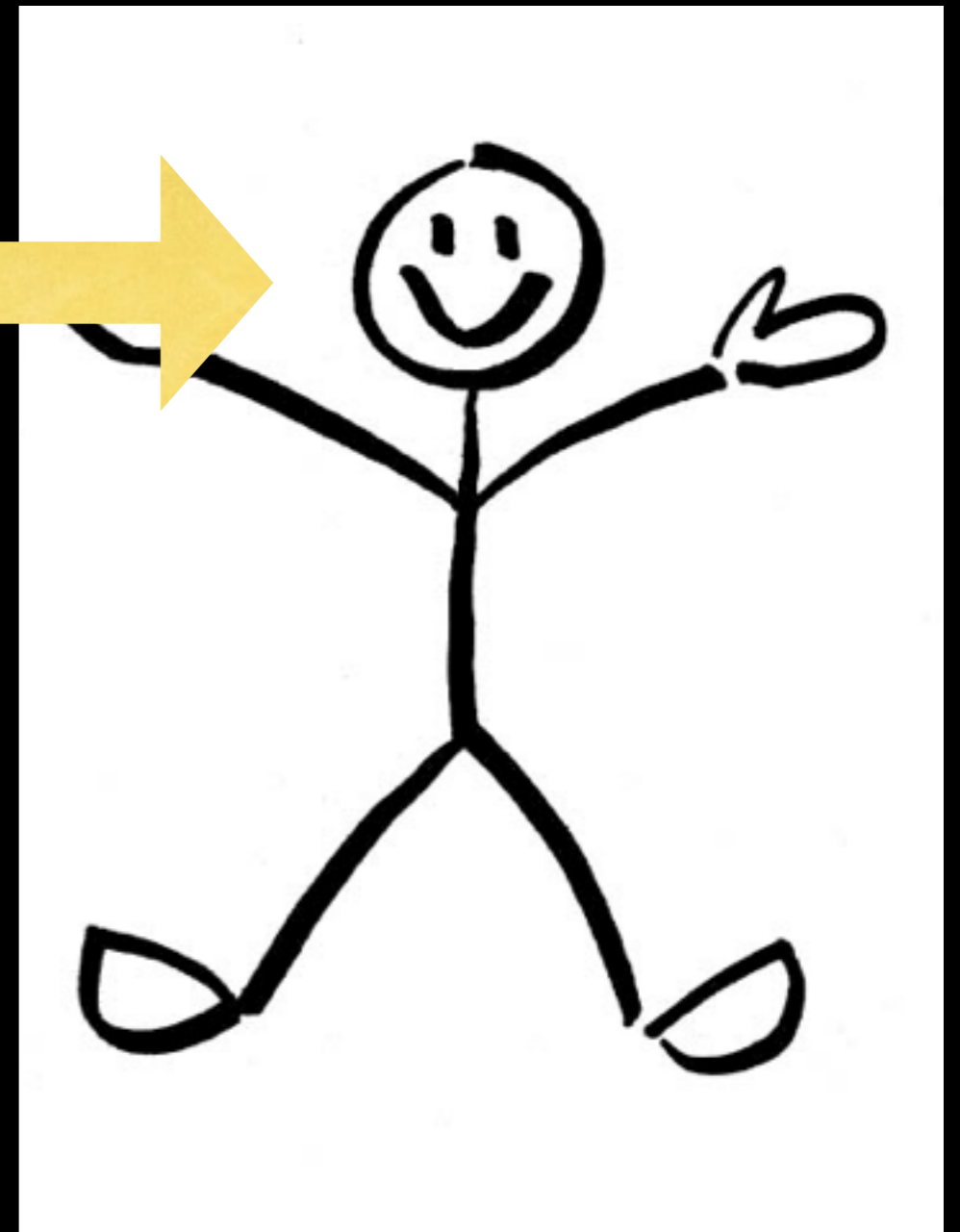


“empiricist” = gradual
acquisition of
knowledge.



BUT RATHER

“Constructionist” =
structure comes from
the organism’s own
actions within the
ENVIRONMENT



Schemas:

- Skills in regard to objects in the environment. These skills he called schemas. (ex. rattle)

The development of new cognitive structures is the result of three different mental processes:

- assimilation
- accommodation
- equilibrium.

Assimilation

- The integration of new information with existing internal mental structures.

Accommodation

- The adjustment of internal structures to the particular characteristics of specific situations, event, or properties of new objects.

Assimilation and accommodation are the two sides of **ADAPTATION**, Piaget's terms for what we would call **learning**.

adaptation

assimilation



accommodation

Ideal state = equilibrium.

- NOT understand = disequilibrium
- Thrown off balance because the present mental structures are inadequate
- By means of interaction with the environment - build new structures.

Stages of cognitive development

- noticed similarities in all children - called “stages”

Piaget's Cognitive Development Stages

1
Sensorimotor
(birth - 2 years
old)



2
Preoperational
(2 - 7 years old)



3
Concrete
Operational
(7 - 11 years old)



4
Formal Operational
(adolescence -
adulthood)



Stage I - Sensorimotor (birth - 2)

- learns to make interesting things last (squeak)
- Does not have object permanence

Stage 2 - Preoperational (2 - 7 or 8)

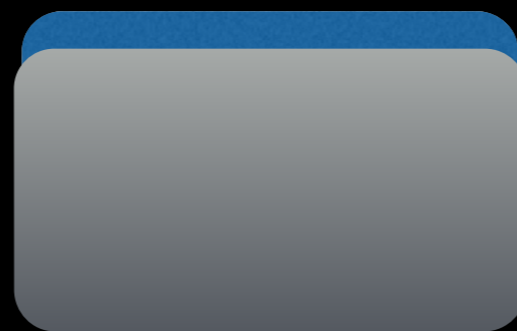
- Uses symbols
- Inability to conserve liquid volume
- Irreversibility

Stage 3 - Concrete operations

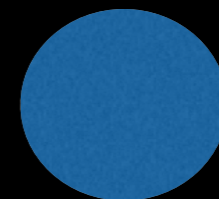
stage (7 or 8 - 12 or 14)

- Reversability
- Seriation
- Classification
- Conservation

liquid (6-7)



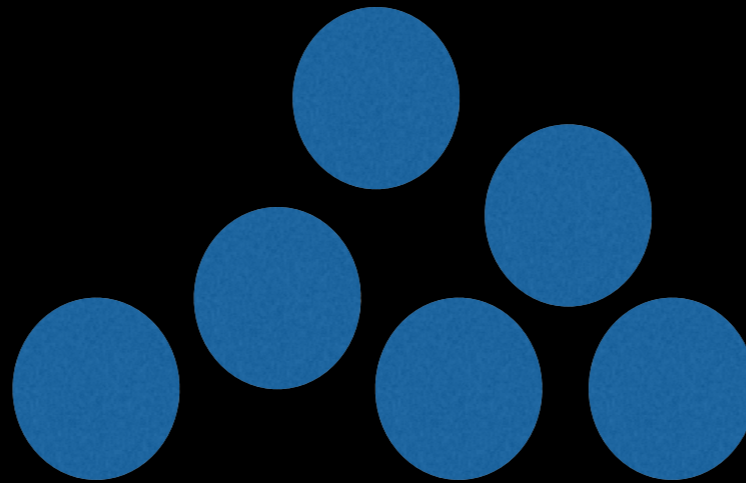
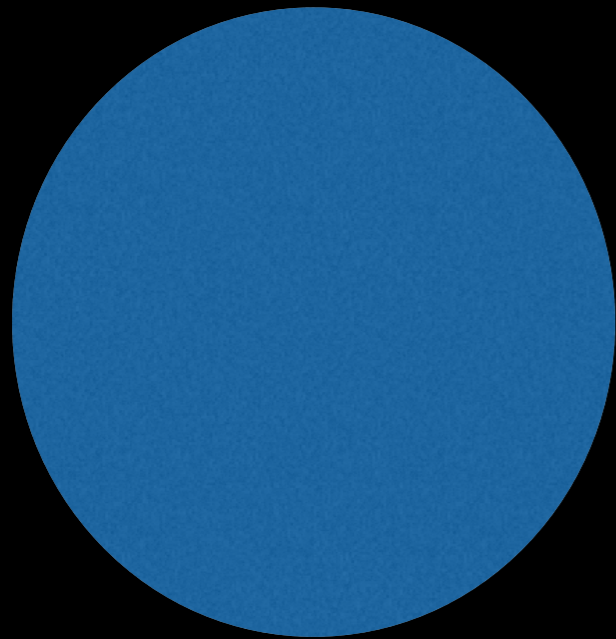
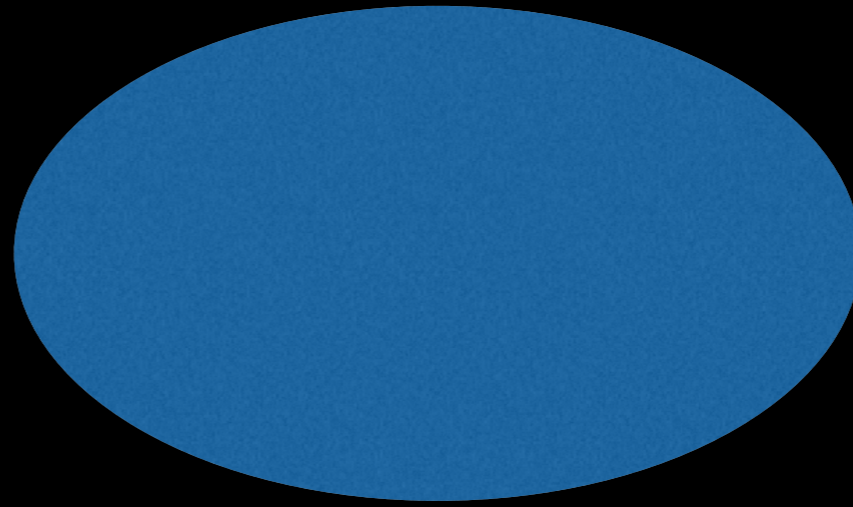
number (6 -7)



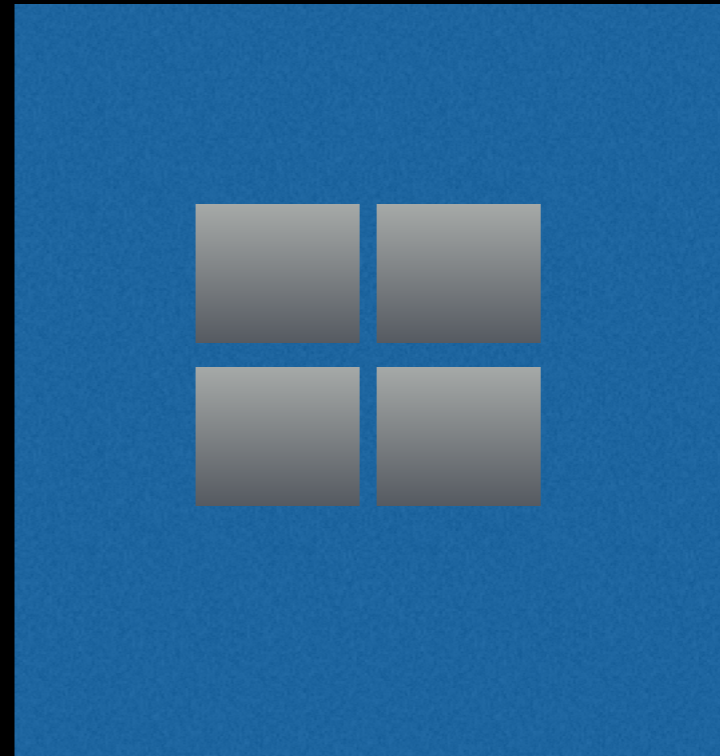
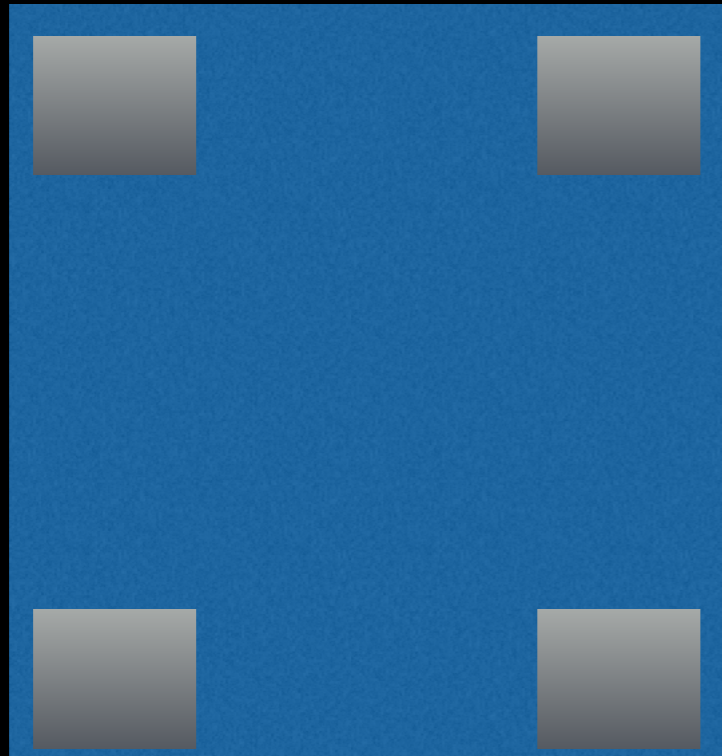
length (6-7)



substance (7-8)



area (9-10)



Stage 4 - Formal operations (older than 14)

- Hypothetical thinking
- Theoretical reasoning
- Combinatorial reasoning
- Proportional reasoning
- Control of variables

Piaget assumed stages were
universal

So -

- anthropologists and psychologists were interested in using his methods and theory in other cultures.

Piaget warned against this!

- special training and language
- → most cross-cultural studies done with his materials were flawed

Why interest in anthropology?

- I. Claim of universality

2. Levy-Bruhl (philosopher) *How Natives Think* (1910)

- two basic mindsets of mankind, "primitive" and "Western"
- described "primitive mentality" "like children"
- controversy

Cross-cultural study = Piaget
provides **theory** and **tools**
useful for studying thought:

- **Theory**: importance of interaction between child and environment
- **Tools**: culture free tests

GOAL of Cross-cultural tests:

- What universals?
- What differences?
- What variables?

What universals?

- Stages of development constant (sequence the same)

BUT nobody, not even Piaget claims
that the ages at which these stages
occur are universal and in fact they are
NOT

What differences?

- Ages the stages occur within cultures as well as cross-culturally
- Do people in all cultures reach all stages?
- (YES - in spheres **familiar** to them!!)
- what is interesting is **why?**

Assignment:

- Saitoti, 3 – 35