

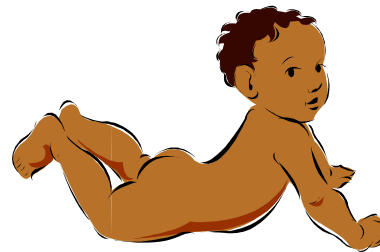
Piaget's Cognitive Development

- Cognition: How people think & Understand.
- Piaget developed four stages to his theory of cognitive development:
- Sensori-Motor Stage
- Pre-Operational Stage
- Concrete Operational Stage
- Formal Operational Stage.



Sensori-Motor Stage (0-2 years)

- Sensory contact understanding.
- The child explores the world surrounding them using it's senses
- Initially sucking/grasping reflex and moving onto reaching for objects out of reach.



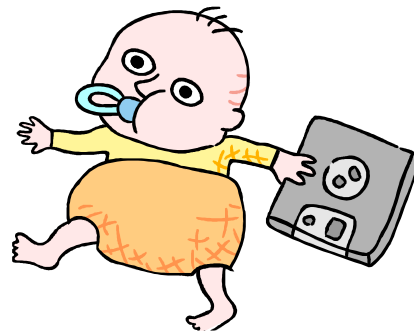


Object permanence.....

- Major development within this stage.
- Initially the baby cannot understand a object exists out of sight.
- As the baby reaches around 7/8 months a child will begin to understand the object/person still exists when out of sight.

Pre-Operational stage(2-7yrs old)

- Toddler can understand the use of symbols and language. This is an example of ***symbolic thinking***. I.E pretend play.
- Language is now understood.





Development of.....

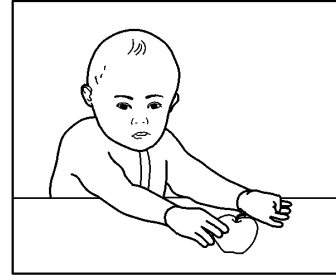
- ***Animism***...child understands 'bad table', believes inanimate objects have feelings as they do.
- ***Egocentrism***...Can only see the world from their own point of view
- All these developments take place in the Pre-Operational Stage.

<http://condor.depaul.edu/~lcamras/demotxt.htm>
(Example of object permanence)

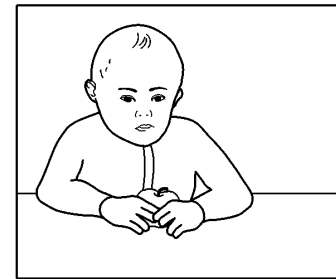


Attempting to search for a hidden object

Infant retrieves a visible object



Infant searches for and retrieves a partially hidden object



But ...

Infant is unable to search for a fully hidden object



Adapted from T.G.R. Bower (1982), *Development in infancy* (2nd Ed.), San Francisco: Freeman.

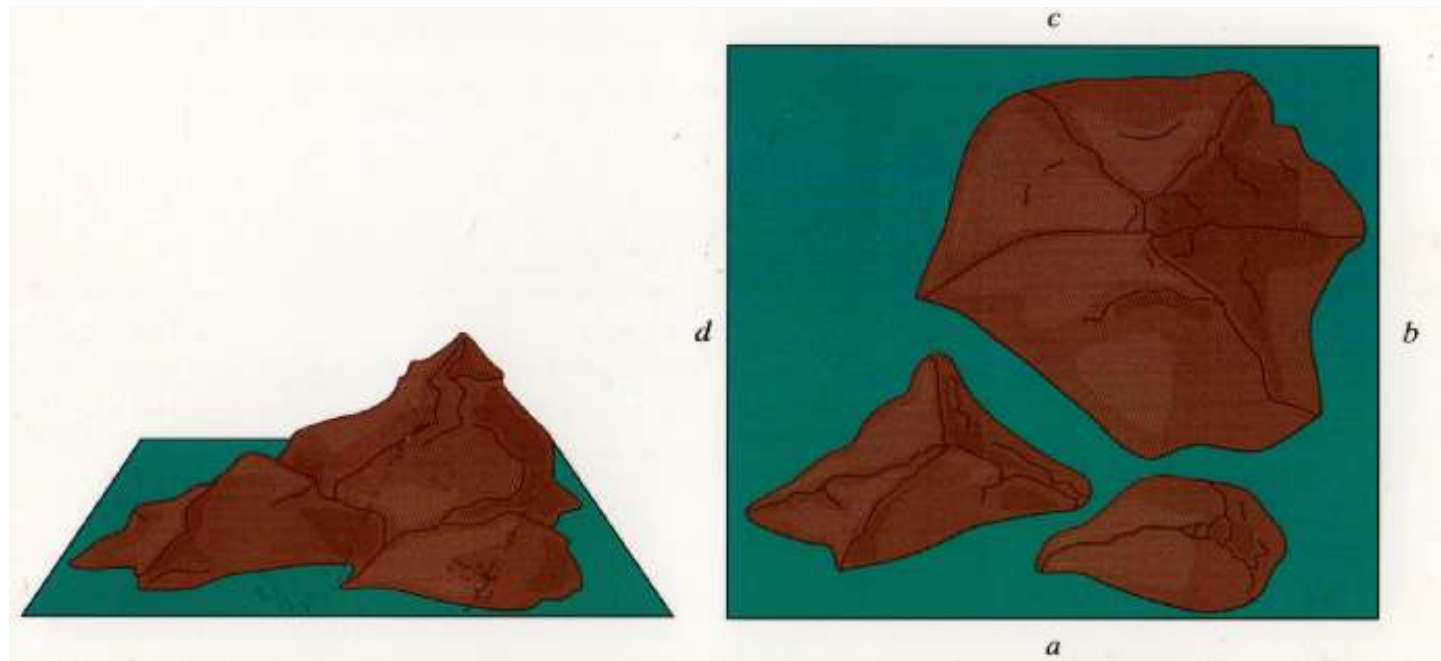


Preoperational Stage (2 to 7 years)

- "Operation" - Forms of mental action through which older children solve problems and reason logically
- Key feature of stage is extensive representation
- Pre-op kids develop "theory of mind" (understanding of mental processes)

Limits of preoperational stage

- Still very egocentric
 - Mountain task





QUESTIONS



WHY CAN'T CHILDREN IN
PIAGET'S PREOPERATIONAL
STAGE CONSERVE?

CAN CHILDREN IN THIS
STAGE BE TAUGHT TO
CONSERVE?



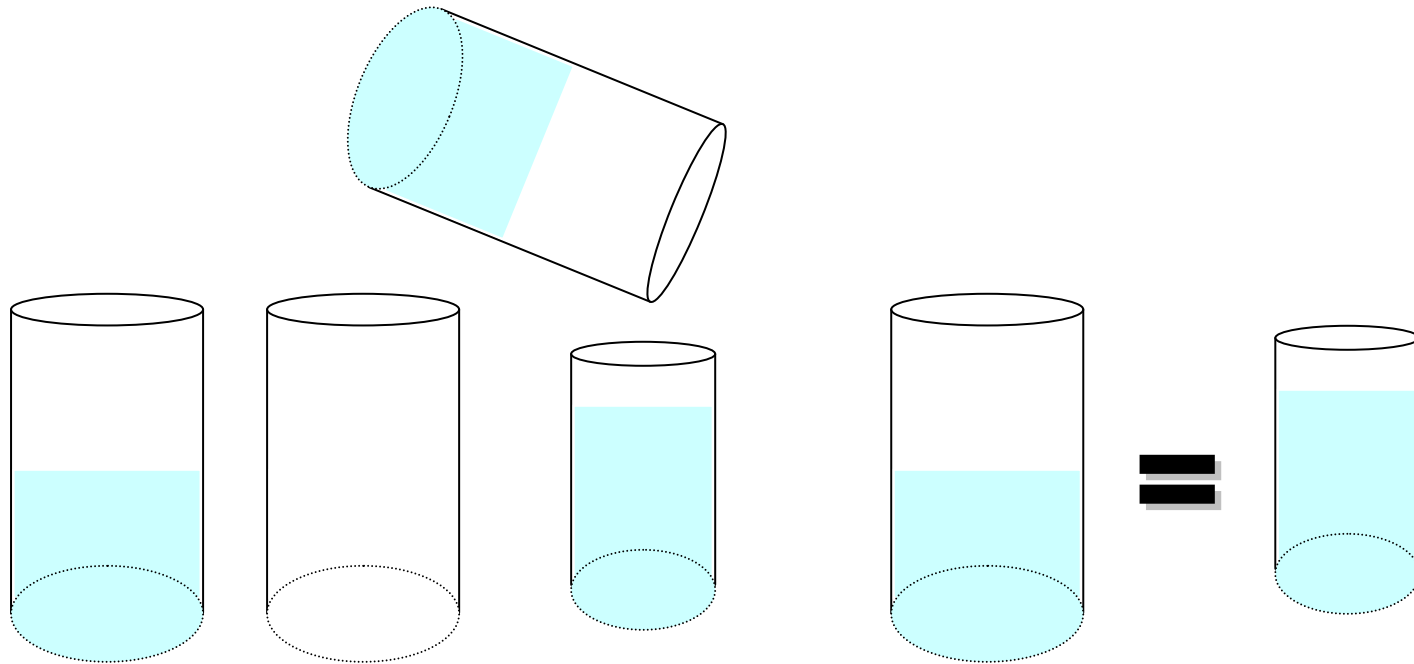
Concrete Operational Stage

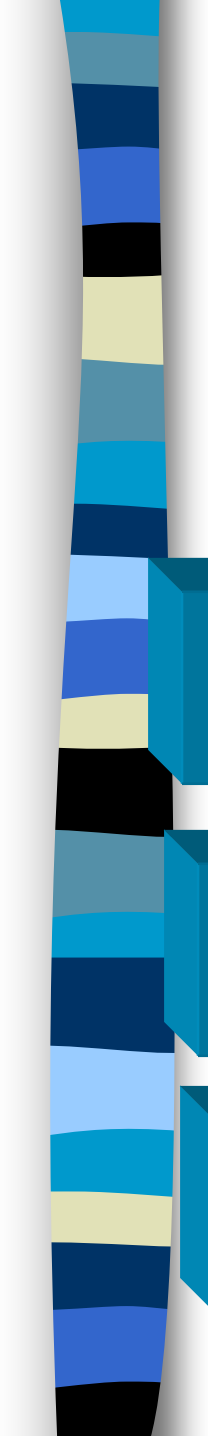
(7-11 years)

- The children are now able to conserve,
- They understand that although the appearance has changed the thing it self does not.

What is CONSERVATION?

"the awareness that a quantity remains the same despite a change in its appearance"

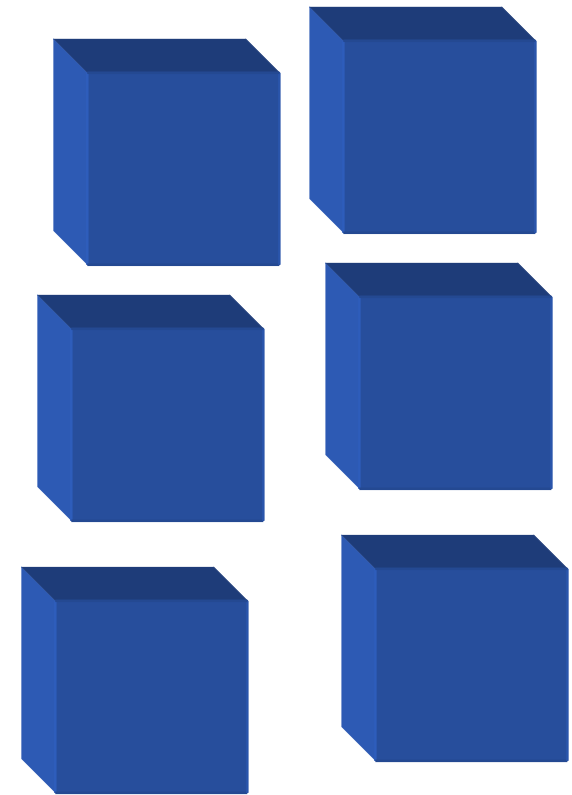




Make sure that the children do not fail to conserve because they do not understand the terms used in the questions- Piaget has been criticized for using difficult questions.



Do you have more blocks or do I have more blocks or do we have the same amount of blocks?





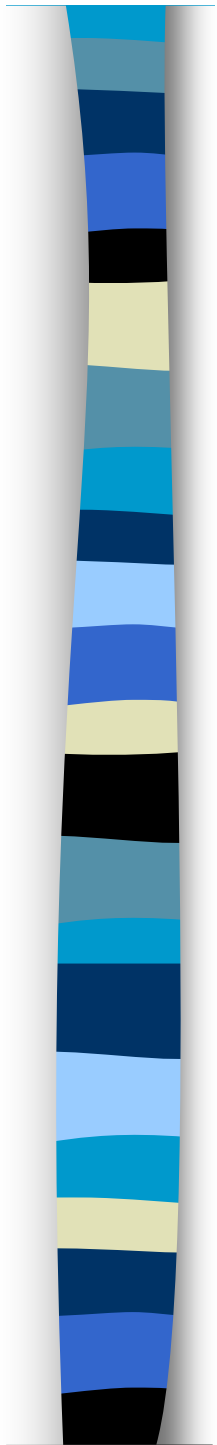
Critical Research...

- Blank & Rose (1974) The way in which the question is asked is important, when they replicated Piaget experiment the percentage of 6-year olds that could conserve increased.
- McGarrigle & Donaldson (1974)'Naughty teddy'(hand puppet) messed up the counters instead of the experimenter, they found that again more 4-6 year olds could conserve.



Formal Operational Stage (11- 16 years)

- Most of previous characteristics discussed have now developed.
- The child shows logical thinking and is able to work through abstract problems and use logic without the presence of concrete manipulation.
- E.g. If Kelly is taller than John and John is taller than Pete who is the tallest? This is an example of inferential reasoning.





Summary of Piaget: Criticisms

- Underestimated the importance of knowledge
- *Gagne: Complex skills can be acquired easily once simpler prerequisite skills have been learned. Development is based on LEARNING new skills - continuous not discontinuous.*
- Underestimated the ability of children
- *. Tasks were methodologically flawed*
- Underestimated the impact of CULTURE:
- *Piaget's tasks are culturally biased*
- *Schooling and literacy affect rates of development*



Summary of Piaget: Criticisms

- Demand characteristics: - the children may have wanted to please the experimenter therefore changing their behaviour.
- Social setting: - Piaget ignored the effect of the social setting upon the child. The way adults use language and gestures.



Strengths

- Active rather than passive view of the child.
- Revealed important invariants in cognitive development.
- Errors informative.
- Perceptual-motor learning rather than language important for development.
- Tasks.



In Summary.....

- Piaget's theory is wide-ranging and influential.
- Source of continued controversy.
- People continue to address many of the questions he raised, but using different methods and concepts.



Sample Questions....

- Describe the role of accommodation in the development of schema (3)
- What is meant by 'conservation'? (2)
- Use your knowledge of psychology to discuss research into children's ability to conserve. (8)