

CRITIQUE OF PIAGET'S THEORY



Critique of Piaget's Theory

How do we critically evaluate Piaget's theory? (or ANY theory?)

- Read about it! Not just textbooks – journal articles
- Identify evidence that supports or challenges the theory
- Alternative theories? Compare and contrast theories



Miller (2002) - four key strengths of Piaget's Cognitive Theory:

1. **Recognition of central role of cognition in human development**

- Challenged previous emphasis - behaviourism and social learning
- Encouraged developmental psychologists to ask different questions
 - changed the focus from 'what children do' to 'how children think'
- Opened up new directions for research and education

Miller (2002) - Four key strengths:

2. **Provided a rich description of specific previously unidentified phenomena** we encounter as we develop e.g.
 - Object permanence
 - Egocentrism
 - Transformational reasoning
 - Specific abilities developing through steps
 - Ability of children to think about very different things
3. **Wide scope**
 - Describes and explains cognitive states, transitions between those states
 - Implications for other areas of development (e.g. social and emotional development)



Miller (2002) - Four key strengths:

4. **Ecological Validity**

- Evidence and examples are based on “real world problems” that children would actually encounter in their environment as they develop



Weaknesses of Piaget's Theory

Insufficient support for a “stage notion” of development

e.g. a child may develop an understanding of conservation of substance earlier than conservation of weight

Infants and young children more cognitively competent than Piaget recognized?

e.g. Siegler (1995): over half of 5 yr-old children who were classed as “non-conservers” still got it right sometimes



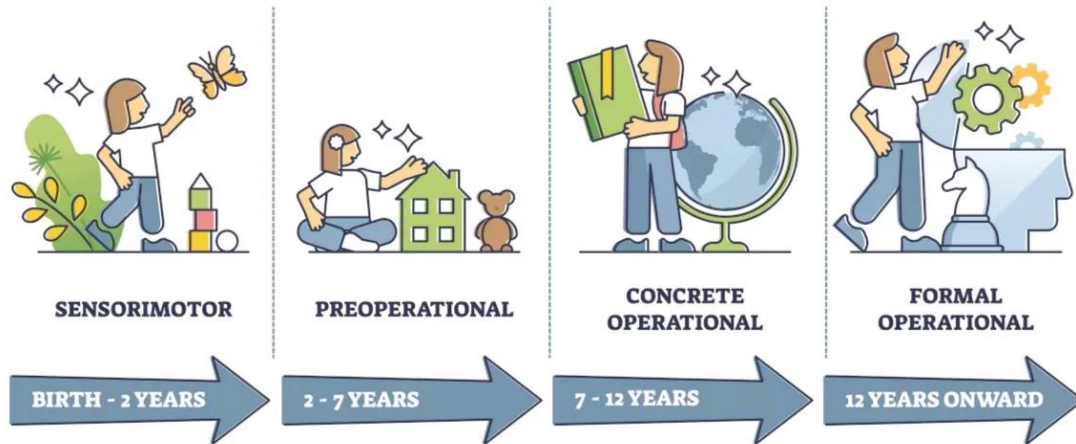
Weaknesses/Questions

Piaget's theory does not fully explain the **mechanisms of development**

i.e. **how** a child moves from one stage to another

- Concepts of assimilation, accommodation and equilibration are an intuitive framework
- but how does a child move through these concepts?

COGNITIVE DEVELOPMENT



Weaknesses/Questions

Are Piaget's stages universal?

- Cross-cultural studies - cultural factors influence speed of progression through stages - but they still proceed in the same sequence
- e.g. Dasen (1994) – Australian Aborigines: show slower acquisition of stages and may not always achieve formal operational thought.

Weaknesses/Questions

Piaget's theory lacks acknowledgment of **social and emotional influences** on development

- Role of social factors in learning and cognitive development?
- Saw child as a developing “scientist” developing independently from its social world?

In contrast - Vygotsky's theory focuses on child development as **a social process**

- BUT – Piaget's concept of ‘co-operation’?

Weaknesses/Questions

Underestimation of cognitive abilities

- Many Piagetian concepts found to appear earlier than first identified by Piaget
- Methods used to assess abilities influential to results
- Infants and young children appear to be more cognitively competent than Piaget recognized



Weaknesses/Questions

Object Permanence Bower & Wishart (1972)

How an object is made to disappear influences the infant's response

Ballargeon, Spelke and Wasserman (1985)

Object permanence in 5-month-olds

Possible and impossible events

Stopping or 'moving through' the occluded box

Weaknesses/Questions

Centration

Classic centration tasks involving e.g. brown and white beads may be too difficult.

- Donaldson (1978): used sleeping cows and asked “are there more black cows or more sleeping cows” – more correct answers
- Siegal (2003): most children still fail this task – suggests conceptual difficulties.

Weaknesses/Questions

Ego-centrism

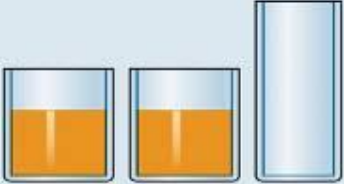
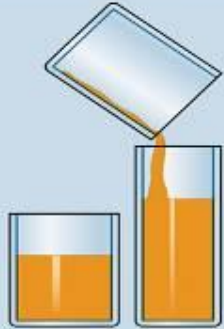
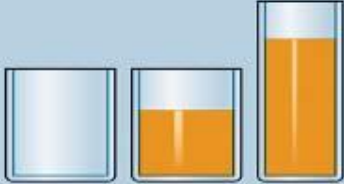
Swiss Mountain Scene - too difficult for a child to understand?

If task presented in a more meaningful way, 3½ year olds can answer correctly (Borke (1975))

Gelman (1979) - 4 year-olds :

- adjust speech when explaining to someone in blindfolds (theory of mind)
- Simplify speech to talk to 2 year-olds

Flavell et al. (1990): Level 1 and level 2 perspective taking

	PHASE 1	PHASE 2	PHASE 3
CONSERVATION OF LIQUID QUANTITY	 "Do they have the same amount of orange drink or a different amount?"	 "Now watch what I do" (pouring contents of one glass).	 "Now, do they have the same amount of orange drink or a different amount?"
CONSERVATION OF SOLID QUANTITY	 "Do they have the same amount of clay or a different amount?"	 "Now watch what I do" (stretching one piece of clay).	 "Now, do they have the same amount of clay or a different amount?"
CONSERVATION OF NUMBER	 "Is there the same number or a different number?"	 "Now watch what I do" (spreading one row).	 "Now, is there the same number or a different number?"

Procedures Used to Test Conservation

Weaknesses/Questions

Conservation

The ability to conserve may come earlier than claimed by Piaget

Without the pre-transformation question, conservation occurs in 6 year olds.

- Rose & Blank (1974): wording of question affects accuracy of conservation
- Donaldson (1978): standard version of task pushes child to give the wrong answer - same question twice

Siegal (2003): if child asked to predict (not witness) the outcome they are more likely to be correct.