Children's Cognitive Development: Alternatives to Piaget

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Outline:
- Brief review of Piaget’s theory
- The role of culture - implications for Piaget’s theory
- The theory of Vygotsky
- The theory of Bruner

Summary of Piaget:

- Stage theory of development - older children think qualitatively differently to younger children
- 4 stages:
  - Stage 1: Sensorimotor Period (0-2 years)
  - Stage 2: Pre-operational stage (2-7 years)
  - Stage 3: Concrete Operational Stage (7-11 years)
  - Stage 4: Formal Operational Stage (11+ years)

  Development is the combined result of:
  - maturation of the brain and nervous system
  - experiences that help children adapt to new environments - adaptation: an organism’s ability to fit in with its environment.

Summary of Piaget: Criticisms

- But Piaget:
  - underestimated the importance of knowledge
    - Gagné: 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
      - e.g. Greenfield’s study of the Wolof
    - Formal operational thinking is not universal
      - e.g. Gladwin’s study of the Polynesian islanders

Alternative to Piaget:

1: Lev Vygotsky

- 1896 - 1934
- Work remained little known because it was banned by Stalin after Vygotsky’s death
- Collapse of the Soviet Union meant:
  - greater dialogue between the West and Russia
  - Vygotsky’s work translated into English

Vygotsky’s Theory:
The role of culture/social interaction (1)

- Sociocultural environment ALL IMPORTANT for cognitive development
- Different contexts create different forms of development
- Cognitive processes (language, thought, reasoning) develop THROUGH social interaction
- Development is a product of CULTURE

Vygotsky’s Theory:
The role of culture/social interaction (2)

- Vygotsky emphasised the role of:
  - social interaction
  - instruction
- Central idea:
  - Zone of Proximal Development (ZPD):
    - the difference between the level of actual development and potential development
Zone of Proximal Development

Example from Seifert, Hoffnung & Hoffnung

- Parent: Here are four books for you and the same for your brother.
- Child: The same? (He investigates his brother’s pile of books.) No, he has more (spoken with annoyance).
- Parent: No, really, they’re the same. Take another look.
- Child: He does have more.
- Parent: Try laying his out in a row. Then lay yours out too. Then compare.
- Child: (Does as suggested) One two three four. One two three four. The same! (He looks satisfied)

Summary of the role of social interaction

- 1. Confirm existing knowledge
- 2. Add new information

- Instruction most effective when:
  - it builds on previous knowledge and skills (e.g. counting)
  - it provides a ‘sensible’ challenge - there’s no point pushing children beyond their potential

Vygotsky’s theory: The role of language

- Piaget’s view: language is just another representational system. Underdeveloped until 6/7 years of age
- Vygotsky’s view: language is social and communicative. Essential for cognitive development.
- Why did Vygotsky think this?
  - Private speech - children talk to themselves

Vygotsky suggested:

- adults give instructions to children (social speech)
- children start to use parent’s instructions to direct their own behaviour (private speech)
- private speech becomes internalised as thought processes (silent statements)
- Children use this ‘internalised’ speech to plan and organise behaviour => cognitive development

Summary of Vygotsky

- Culture and social interaction very important in cognitive development
- Social interaction with knowledgeable others moves development forward - ZPD
- Language is central to cognitive development:
  - social speech => private speech => thought
Alternative to Piaget 2: Jerome Bruner

- Very influenced by Piaget’s and Vygotsky’s work
- Responsible for introducing Vygotsky’s work to the non-Soviet world

Bruner’s Theory: Similarities with Piaget

- Socio-Cognitive Stage Theory:
  - Enactive Mode
  - Iconic Mode
  - Symbolic Mode
  - Abstract thinking develops out of concrete thinking

Bruner’s Theory: Similarities with Vygotsky

- Interpersonal communication necessary for development - socio-cognitive theory
- Development relies on active intervention of expert others:
  - SCAFFOLDING
  - Contingency Rule (Wood, 1980)

Bruner’s Theory: The role of language

- Language important:
  - without language, thought is limited
  - language forms the basis of understanding:
    - prelinguistic thought - games and rituals
    - rituals gradually replaced as adult adds information
    - rituals replaced by linguistic modes of communication

Summary of Bruner

- Socio-cognitive stage theory
- Based on interaction with adults
- Relies on adults developing reciprocal behaviour with the child

Overall Conclusion

- Piaget underestimated the importance of culture and social interaction
- Vygotsky:
  - social interaction and language necessary for cognitive development
- Bruner:
  - Stage theory but emphasised role of social interaction and language

Learning Outcomes

- Critically evaluate the theories of Bruner and Vygotsky
- Critically compare and contrast the theories of Piaget, Bruner & Vygotsky
Developmental Psychology: Lecture 9: Reading

Items marked with a * are on my restricted loan list.

Reading List