Attention-Deficit Hyperactivity Disorder

- Inattention.
- Impulsivity.
- Excessive motor activity.
- Results in social and academic problems.

Metacognition

- A person’s awareness of his or her own cognitive abilities and limitations.
- E.g. knowledge about strategies and capacity limitations.

Cognitive self-regulation

- Process of monitoring and controlling progress towards a goal.
- Self-regulation is enhanced by knowledge of a strategy and opportunity to apply it.
- Bidirectional relationship between metacognition and strategic processing that enhances self-regulation.
- Parents and teachers play a vital role in promoting children’s self-regulation.

Compare and contrast theories of cognitive development

<table>
<thead>
<tr>
<th>Piaget</th>
<th>Information Processing</th>
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<tbody>
<tr>
<td>Stages.</td>
<td>Continuous.</td>
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<tr>
<td>Domain-general.</td>
<td>Domain-specific.</td>
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<tr>
<td>Logic and representation.</td>
<td>Processing capacity and experience.</td>
</tr>
<tr>
<td>Vague mechanisms (assimilation and accommodation.)</td>
<td>Specified mechanisms and components (automatisation, processing vs storage).</td>
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Evaluation of information-processing approach

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Limitations</th>
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<tr>
<td>Breaks complex cognitive activities into precise components.</td>
<td>Components hard to combine into broad picture.</td>
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<tr>
<td>Provides details of age and skill related differences.</td>
<td>Computer metaphors simplify real-life experience, overlooks nonlinear aspects like interaction with others.</td>
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<tr>
<td>Describes precise mechanisms of cognitive development.</td>
<td>Slow to include biology and evolution.</td>
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The social origins of cognition: A sociocultural perspective

The sociocultural perspective

- Developed by Lev Vygotsky (1896-1934):
  1. Russian Soviet Psychologist.
  2. Influenced by Marxism.
  3. Studied Piaget’s work extensively.
  5. Died early before his theory was complete.
- Major influence on Western developmental psychology since 1980’s as a challenge to Piaget.
- Rejects an individualistic view of the child in favour of a socially formed mind.

Elementary and Higher Mental Functions

- Elementary functions: mental functions of animals and infants.
- Higher functions: mental functions that are unique to humans.
1. Understanding the concept of gender motivates child to learn appropriate behaviour.
2. Particular emphasis on gender constancy.

- Evidence for:
  1. Some evidence for level of understanding correlating with behaviour.
  2. Children do become more sensitive to same sex models around the time they achieve constancy e.g. recall activities if modelled by same-sex.

- Evidence against:
  1. Gender preference is shown very early.
  2. This is before children have cognitive understanding of gender identity.

A synthesis?

- Gender schema theory/information processing theory.
- Socialisation and cognitions both play a part.
- Cognitions organised as “schemas” and “scripts”.
- Children pick up on early socialisation pressures and organise information into:
  1. Schemas – cognitive structures or networks that hold and organise information about gender and inform behaviour.
  2. Scripts – routines or sequences associated with one gender.

What about biology?

- Biological approach: genes and hormones are primarily responsible for sex and gender differences.
- Hormones: sex hormones affect play styles and preferences. Androgens (male sex hormone) related to rough and tumble. Effects are observed in non-human primates too (Bento, 1992).
- Congenital Adrenal Hyperplasia: excessive androgens during gestation (a male hormone). Girls with CAH are significantly different from girls without CAH (Money and Ehrhardt, 1972) e.g. more tomboyish and less likely to pretend to be like feminine clothes.
- Testosterone: correlates with level of eye contact made at 12 months, vocabulary at 18 months and mental rotation ability (Lutchmaya et al., 2002).
- Genes affect physical development e.g. genitals, activity level, size and musculature, and development and organisation of the brain (lateralisation) e.g. cognition and social cognition.

Summary of evidence (Maccoby, 2000 and 2002)

- Boy and girls differ – biological basis.
- Boys more active, less verbal; girls more verbal, less active.
- Play and interact differently.
- These differences are socialised, especially by each sex as gender-schemas develop.

Friends and Peers

Overview

- The influence of friends and peers on social, emotional and cognitive development.
- Peers – play interactions.
- Friendship – importance of friendship, identity of friends and age and gender differences.
- Peer acceptance – sociometric methods and outcomes of peer status.

Peers and friends

- Peer – another child in the same social group. At 2 years, children spend about 2% of their time with peers, by school age, this rises to about 30%.
- Friend – someone the child chooses to form a close relationship with based on mutual liking. Friendships are drawn from the peer group and they are voluntary and reciprocal.