

Week 11

Monday, May 16, 2016

PART A - Memory development

PART B - Intelligence and measurement

Lecture notes

Memory development

- Autobiographical memory: personally meaningful one-time events from both the recent and distant past.
- They are vivid, robust and flexible.
- Infantile amnesia: inability to remember autobiographical experiences from the first few years of life.
- Memory from the womb, preferential sucking procedure.
- Newborns prefer to listen to the stories recited to them when inside the womb.
- Capable of forming memories after birth.
- Scientists are trying to study the mobile conjugate-reinforcement paradigm.
- Uses the baseline, learning and test phases.
- Operant train paradigm for infants aged 7 to 18 months.
- Deferred imitation paradigm.
- Encoding, retention and retrieval abilities in the memory of infants
- Speed, duration and flexibility development in each of the abilities.
- They are stuck to the specifics of stimulus and context.
- Memory conversations are heavily scaffolded by adults and initially cued by concrete reminders.
- Concrete reminder cues are often physical things.
- Reminders lead to longer-lasting memories. They increase the retention interval and the likelihood of retrieval.
- High-elaborative mothers ask many questions and elaborate on the who, what, when and where.
- Low-elaborative mothers ask few, repeated questions and are quick to switch topics.
- Infantile amnesia boundary differs for different cultures.
- Reminiscence bump is around 20 years.

Intelligence and measurement

- Types of tests:
 - aptitude; measure what you may be able to do in the future.
 - achievement; measure what you can do now.
 - intelligence; measure general cognitive functioning.
 - personality; measure aspects of personal character.
- Question the standardisation, reliability, validity and bias.
- **Standardisation** involves giving the test to a large random sample to find out what is the average performance.
- It is important to know who the population is that the test is standardised on.
- **Reliability** measures the extent to which the test yields consistent scores for individuals.
- Several techniques are available: alternate forms, split-half and test-retest.
- **Validity** assesses the test's accuracy in measuring what it is meant to measure.
- Three major types of validity: predictive, criterion and construct.
- Does everyone have the same chances to perform well on a certain test?
- **Bias** reflects the extent to which some groups within the population are more likely to do well on a test compared to others.
- **Intelligence** is a person's ability to learn and remember information, to recognise concepts and

their relations, and to apply the information to their own behaviour in an adaptive way.

- Intelligence can be measured through many different methods, like through the Binet-Simon scale.
- General intelligence underlies all mental capacities, i.e. music, math, language, etc.
- Multiple intelligences is made up of sub-skills.
- Theories of intelligence:
 - Spearman's two-factor theory; the *g* factor accounts for moderate correlations between different tests.
 - Raven's progressive matrices; identify the missing element to complete the pattern.
 - Thurstone conducted a factor analysis to determine the nature of intelligence and found seven factors.
- Reliability is assessed by the correlation between the scores that people receive on the same measure on two different occasions; test-retest.
- Validity is the correlation between the test scores and the criterion; an independent measure of intelligence.
- Test performance is influenced by culture and only makes sense in comparison to normative data.