# Lecture 5 – Cognitive Development

- The relationship between historical (Lecture 1) and current perspectives on the nature of development
- Characterise differences in contemporary perspectives

- How do we conceptualise cognitive development? Thinking, reasoning, problem-solving
- What are the roots of cognitive development? Biological/neuro, social/cultural, general/specific

Current themes in cognitive development

1. <u>Stages of development: child starts in one particular stage, then changes into another stage</u>
Piaget theory: traditional stage model (developmental discontinuity) – used to be the dominant model
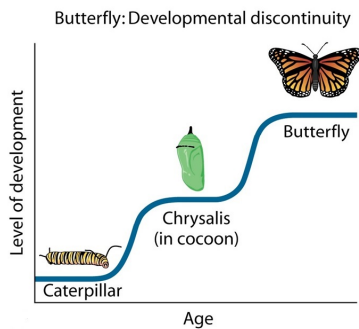
- Focus is on the operation to do with the machinery of thought (the capacity you have to think)

Stages of development: (Operational – capabilities of operations of your brain and thinking)

- *Sensorimotor* (up to 2 years)
  - Children 9months+ have a sense of object permanence (object continues to exist even though you cannot see it, ie. Being able to retain information in mind so you can operate in that information
  - Understands the world through senses and actions
- *Pre-operational* (up to 6/7 years)
  - Children begins to develop mental representations and operational thought (ability to conceptualise an idea so they can operate on it)
  - Operational thought: *perspective taking*. Eg. child is asked what a doll would see – Piaget's three mountains task
  - Understands the world through symbols and mental images
  - This period includes egocentricism (integration of concepts is not possible without concrete-operational intelligence, ie. Keeping two things in mind simultaneously)
- *Concrete operational* (up to 12 years)
  - Children manipulate internal mental representations formed in the preoperational period, ie conserve the identity of information across a transformation
  - Eg. two beakers (same shape) with same amount of water is shown, then one of the beakers with water is poured into another shaped container – is there the same amount of water in the new container and other container?
  - Eg. two rows of same number of coins are presented (spaced evenly). Then one of the rows is moved so that it is spaced out more than the other row (ie. 'longer') – does each row still have the same number of coins?
  - Understands the world through logical thinking and categories
- *Formal operational*
  - Understands the world through hypothetical thinking and scientific reasoning (abstract thinking)

Two key ideas: these ideas conflict with the idea that you may have different capabilities of thinking (eg. Sauvants who have special capabilities in particular areas)

1. ==Qualitative changes== in children's thought: the type of thinking that goes on in each of those stages are quite different
2. Invariant sequence in patterns of thought: you can't be in different stages at the same time

Piaget limitations:
- Focussed on inabilities rather than abilities: does not tell us what the child *can* do at this age
- Ignored the social context: does cultural context influence results?
- Focused on decontextualized rather than every day problems: task is not part of infant's routine, would this make a difference?
- Says little about language development: if you believe linguistic abilities help shape thinking, Piaget does not explain this

2. Information Processing: how different aspects of your system processes information (function of system)
   - Focussed on factors and capabilities that *support* thinking, and ==quantitative changes== with age
   - Continuous change model (as we grow, our capacities grow, allowing us to do more things) – is now the dominant model

Pine tree: Developmental continuity
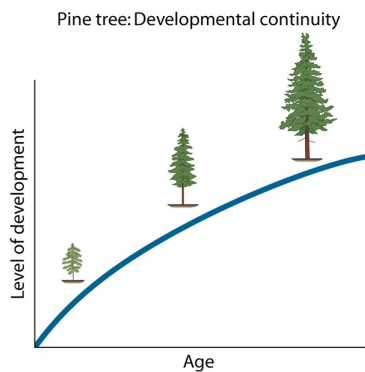
   - The ability to hold information in your memory is important in cognitive development. If you have limited operational capacity, therefore you will have limited capabilities
   - Argument: young children have limited information processing. This model presents that it is the limit in information processing, a quantitative change that occurs with increase in age. As you increase in age, you have more memory, so therefore an increased capacity to solve problems.

3. Culture and Thought

Vygotsky's Theory of Cognitive Development
   - Emphasised the role of socialisation and environment (parents, peers) in child's intellectual development
   - Piaget and information processing account: Unassisted 'social' developmental interaction
   - Vygotsky: study child's capabilities with interaction. A more competent child of an adult organises a task and provides social meaning. The less confident child/novice adults benefits from zonal proximal development (internalises and makes own meaning)
   - To understand the notion of child development and change, you need to understand and interact in the social and cultural environment, ie. Work within the zone of proximal development

Zone of proximal development: what our understanding of development is, what affects change, and how change occurs
- Relationship between self and other
- Importance of cultural practice, language, and cognition

Social construction of thought: does it matter where you grow up? Does the ways of thinking you are introduced to as a child matter, does it structure your thinking?

4. Specific knowledge (Modularity): Darwinian model – brain structure modularity is inherited biologically. Our biological history shape our views.
   Infant starter kit (next lecture)

Lecture 24 – Development with Peers

- What is a **friend**?
  - The psychologists' vs. the child's perspective
  - How do friendships develop over time?
- How do friendships **shape** children's development?
  - 3 answers
  - The importance of peers
- **Peer groups**
  - Cliques vs Crowds

Friends and friendships
Friendships
- Friendships are:
  - Homophilic: share something in common (eg. SES, school, activities). Activities define where young children spend their time. Likely they became friends because of shared activities. However, people start doing activities because of friendships
  - Reinforce tendencies: if a friendship group has a shared trait (eg. academic), then child in that group will likely to act that way also, and to pick up on those traits
  - Mutual (I get something from you, you get something from me), reciprocal (you do this for me, I do this for you)
- Across time, friendships become more complex
  - Starts with the things that are observable (we play together), then more complex (trust, loyalty)
  - Progresses in the same way as people's social understanding and self-concept progresses
Friends
- Friends are:
  - Age-matched
  - Close
  - Non-familial
- 2 ideas of friendship:
  - Siegler et al (2014)
    - Instrumental and concrete (6-8y) – purpose/usefulness of a person through something measurable/observable
    - Companionship (8-12y) – reciprocal care for each other in emotional and physical ways. Start disclosing things, and trust. Also, fighting occurs
    - Intimacy and disclosure (12y+) – at this stage, young people start thinking about their conflicting sense of self. This friendship group and intimacy is important for young person to disclose themselves, and to test out their identities and get feedback
  - Damon (1982, 1991) and Berndt (1981, 2004)
    - Handy playmate (4-7y) – person around who they can play with and share toys with. Friendships form quickly at this age. Many friends, but are not maintained
    - Mutual trust and assistance (8-10y) – friends last a little longer here
    - Intimacy and loyalty (1y+) – friendship endure the longest here
How friendships are unique:
1) Voluntary
2) Equal power dynamic
- Both people contribute to and gain from the relationship

3) Transactional
- Interaction where both people bring something to the interaction
- Since every friendship transaction is different, studying the different transaction offers more detail and depth about the nature of child's development in terms of what they value, what they contribute to others, etc.
4) Important for wellbeing
- Voluntary nature
- Keeping the other person happy is the ultimate goal. This is what is keeping them happy too.
- There is an agency and self-efficacy within that relationship.
- The longer they can make the relationship last, the better for their self wellbeing

How do friendships shape children's development?
1) Emotional support and validation
- Buffer against unpleasant experiences
- Stability during transactions
- Validate each other's worth
- Validate each other's beliefs
2) Development of cognitive skills (learning)
- Offer and accept constructive feedback → develop creativity
    o Reciprocal nature and equal power balance makes it conducive to constructive feedback
- Offer and accept constructive feedback → socially constructed learning
    o People form knowledge together
    o Social constructivist approach: people form ideas together
        ▪ When only learning, it is useful for learning new ideas
        ▪ When working together, it is useful for sharing ideas and forming new ideas.
3) Development of social skills (conflict resolution)
- Practice pro-social behaviours → younger children: pretend play (perspective taking)
- Practice pro-social behaviours → older children: gossip, argue

Importance of peers: an example of why friends may have more impact on development
- 6 Jewish children were orphans
- It was thought that orphans didn't have the opportunity for parent-child attachment, because they are not in orphanages for a long enough time. They also don't have strong peer connections, because people move in and out, etc.
- Therefore, idea is that the children should have a lot of emotional and psychological damage
- However, this group had stayed together, from infants to age 3, through the trauma they had seen
- The orphaned peer group showed:
    o Attachment (to each other): they were cold, mistrusting, angry towards other adults and other children. However, were taking the role of parent with each other, working as a family unit. Therefore, family may be replaceable by friends. The experiences that children need can be sought from friends.
    o Protection
    o Reinforcement
    o Emotional support
Cliques: friendship groups that children (late childhood to late adolescence) voluntarily form or join
- Sense of belonging:
    o Person feels the need to be in that clique (the clique sends a message about who they are)
    o Belong via activity/clothes, through their everyday life
    o Failure to meet the expectations of the clique (expectations in a person's head) can lead to ridicule and rejection from the clique
    o Fear of rejection from something that is expressing identity results in angst
- Shared interest (peer pressure or self-selection?)
    o If the clique is formed because of deviant behaviour, young person will engage in deviant behaviour to show belonging
    o The need to do what the clique is doing emphasises the idea of peer pressure

- Context for socialisation (gossiping and in-fighting)
    o Fighting usually arise about things that an outsider (teacher, parent) would see as trivial
    o However, it is important to that person because it represents the clique
    o This gives young person an experience of betrayal and hurt, and giving other person those feelings.
    o However, this is done in a relatively safe way (trivial issues), which can be small enough to handle
- Unstable, transient membership (polygamous clique membership)
    o Cliques change almost as often as the young person has the opportunity to meet new people
    o Young people belong to multiple cliques at once, hence engaging in different activities, which is setting up for more opportunities for gossip and judging
    o Each clique aligns with a different interest of the person. Each clique is an opportunity to form a different identity.

Crowds: groups of adolescents with similar stereotypes reputations. 'jock', 'nerd'
- Not voluntary
    o The crowd is bestowed upon them by everyone else, and their perceptions of them
- Shapes identity development: the way you perceive someone changes the way you respond to an event. Points to discrimination and stigma. Crowds are limited to the local environment the child is in
    o Interactions with others
    o Opportunities