How do we become socially skilled?

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Why study development?

“explaining [quantum physics] is child’s play compared to explaining child’s play”
— Albert Einstein

Why study development?

• Why is it important?
  — Basis for deciding how to treat disabilities
  — Potential to improve education, parenting
  — Improve the lives of infants/children at risk
• To know a trait, know how it emerges
  — Example: Walking emerges in various ways, but every infant first starts with alternating leg flexion
Development of social skills

What sorts of skills?
Kin recognition

Kin recognition (or “system identification”)

Some things are people, and they do useful things for you.

What are people like?

What do they look like?

What do people look like?

How do people move around?

https://youtu.be/rFV86kW9pRk?t=11
What do people look like?

How do people move around?

Bertenthal et al., 1987: Do 3-month-olds discriminate biological motion?

What do people look like?

What about people who really matter?

'Are You My Mother?'

Do infants discriminate a parent’s face from a stranger’s?

Layton & Rochat (2007): Habituate to stranger #1; dishabituate to either stranger #2 or mother

Noticing a new face...

4 months: no clear evidence of differential response

8 months: preference for motion or features of parent’s face

So younger infants can’t discriminate their parent from other adults?

Probably they can, using multiple cues.
What does kin recognition ‘buy’ you?

- Survival
- Attachment relationship
  - Anna Freud: study of ‘substitute’ relationships in orphans
  - Bowlby: ‘emotional tether’
  - Facilitates independent exploration and learning

Development of social skills

What sorts of skills?
- Kin recognition
- Playing
- Hunting or foraging
- Mating
- Aggression
- Communicating

What social skills do human babies learn from parents?

What behaviors occur in social interactions?
What do infants perceive & respond to in their social environments?

• What did you see in the video?
  – Expressions
    • Face, voice, posture
  – Words
  – Actions
    • Gestures & gesticulations
    • Goal-directed actions (e.g., reaching for a raisin)
      – Social goal-directed actions
• These events occur in patterns

Example: Attention-sharing skills

“Do you see what I see?”
• See what/where someone is looking
• Get someone to look at what you’re looking at
• Important for teaching & learning

Gaze-following: Early attention-sharing skill?

Around 8-12 months
Why does it matter?
  Learn what's important to other people
  Figure out what they mean
A human skill? Evidence from our cousins

- Okamoto et al (2002): Gaze-following in Ayumu, a captive-reared chimpanzee
- How widespread is gaze-following behavior among primates?
- What does this mean about the origins, and usefulness, of this social cue?

What we covered

- Infants learn what people look like, and how they move
  - People in general
  - Some important individuals (e.g., caregivers)
- Infants learn to use others’ actions (ex: where they’re looking) to learn about the environment
- ...and of course much more!

Talk to me.
Studying communication in infants & toddlers: the Cognitive Science approach

Questions?

Visit our lab page: cogdevlab.ucsd.edu