

Lecture 3 - Jan 26/2012

Thursday, January 26, 2012
7:11 PM

Historical Figures Potentially Autistic

Autism

DSM-IV criteria

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3)

(1) qualitative impairment in social interaction, as manifested by at least two of the following:

1. marked impairment in the use of multiple nonverbal behaviours such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
2. (b) failure to develop peer relationships appropriate to developmental level
(c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
(d) lack of social or emotional reciprocity

2) qualitative impairments in communication as manifested by at least one of the following:

- (a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
- (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
- (c) stereotyped and repetitive use of language or idiosyncratic language
- (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) restricted repetitive and stereotyped patterns of behaviour, interests and activities, as manifested by at least one of the following:

3. encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
(b) apparently inflexible adherence to specific, non-functional routines or rituals
(c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
(d) persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play

C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

- Very similar to autism but this disorder also has normal developments

- Autism is separate to this

On a spectrum of severity

i.e. High Functioning Autism, Asperger Syndrome vs. severe autism with co-morbid mental retardation

A deficit in theory of mind, autistic individuals have a hard time with tasks testing theory of mind. "Extreme male brain" Simon Baron-Cohen

Source: poor communication between areas in brain responsible for taking another's point of view. Mirror neurons, said to be involved in empathy, are less active in autistic individuals

Evidence for a genetic influence – identical twins 70%

- Females are better empathizers
- Men are better systematisers and are better at rules and such
- Autism and extreme male thing? Greater in boys than it in females
- Poor communications between areas of the brain
- Implicated mirror neurons in empathy
- Vaccines and the mercury within it causing autism? There are many different theories

Treatment: early intervention, social skills training, communication intervention (i.e. picture exchange), speech and language training, television interventions.

Technology a good way to communicate: Carly Fleischmann

Video: [Carly Finds her Voice](#)

Temple Grandin: high functioning autistic, professor, animal and autism advocate

Video: [Homework "The world needs all kinds of minds"](#)

Implications for relationships - Movie: Adam

Social Development

- Stranger anxiety is the fear of strangers that develops at around 8 months. This is the age at which infants form schemas for familiar faces and cannot assimilate a new face.

[Video Example: Stranger anxiety](#)

Origins of Attachment

- Harlow (1971) showed that infants bond with surrogate mothers because of bodily contact and not because of nourishment.
- Like bodily contact, familiarity is another factor that causes attachment. In some animals (goslings), imprinting is the cause of attachment.
- Monkeys raised with a wire mother and a cloth mother
- They would only go to the wire mother to eat and they prefer the cloth mother due to the comfort it provides

Attachment Differences

- Placed in a strange situation, 60% of children express secure attachment, i.e., they explore their environment happily in the presence of their mothers. When their mother leave, they show distress.
- The other 30% show insecure attachment. These children cling to their mothers or caregivers

and are less likely to explore the environment.

- Animals can imprint on people
- Imprinting and familiarity can foster a fondness

Secure Attachment

- Relaxed and attentive caregiving becomes the backbone of secure attachment.

Insecure Attachment

- Harlow's studies showed that monkeys experience great anxiety if their terry-cloth mother is removed.
- Terry cloth mother was not responsive at all while the monkey was growing up
- The monkey suffered a great deal of anxiety when the cloth mother is removed
- Unresponsive mothers and removal of them = serious anxiety

Attachment Differences: Why?

- Why do these attachment differences exist?

Factor	Explanation
Mother	Both rat pups and human infants develop secure attachments if the mother is relaxed and attentive.
Father	In many cultures where fathers share the responsibility of raising children, similar secure attachments develop.

Separation Anxiety

- Separation anxiety peaks at 13 months of age, regardless of whether the children are home or sent to day care.

Deprivation of Attachment

- What happens when circumstances prevent a child from forming attachments?
- In such circumstances children become:
 1. Withdrawn
 2. Frightened
 3. Unable to develop speech

Prolonged Deprivation

- If parental or caregiving support is deprived for an extended period of time, children are at risk for physical, psychological, and social problems, including alterations in brain serotonin levels
- Permanent changes to the brain may also develop

Disruption of Attachment

- Infants separated from caregivers usually recover well if placed in a stable and positive environment.
- Romanian orphan adoption research
- When children don't have the chance to attach to a mother figure

- Ex. Children who are adopted and don't have time to attach to the caregiver

Self-Concept

By 18 months, we can recognize our own face in a mirror (red dot research).

By age 12, most children have developed a self-concept

Even animals can display a self-awareness i.e. elephants, apes, dolphins, magpies all pass mirror test

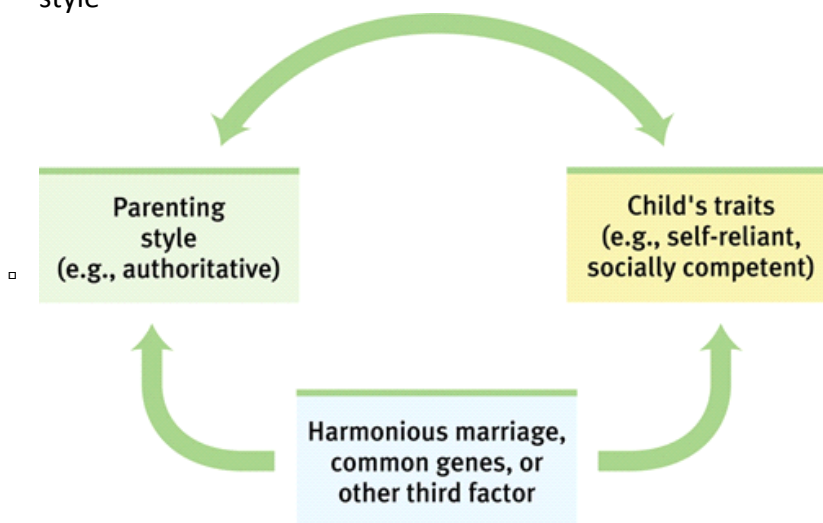
[Video Example: Self-Awareness in Apes](#)

Parenting Styles

Practice	Description
Authoritarian	Parents impose rules and expect obedience.
Permissive	Parents submit to children's demands.
Authoritative	Parents are demanding but responsive to their children.

Authoritative Parenting

- Authoritative parenting correlates with social competence — other factors like common genes may lead to an easy-going temperament and may invoke an authoritative parenting style



Child-Rearing Practices

Practice	Description
Authoritarian	Parents impose rules and expect obedience.
Permissive	Parents submit to children's demands.
Authoritative	Parents are demanding but responsive to their children.

Adolescence

- Many psychologists once believed that our traits were set during childhood. Today psychologists believe that development is a lifelong process. Adolescence is defined as a life between childhood and adulthood.

Physical Development

- Adolescence begins with puberty (sexual maturation). Puberty occurs earlier in females (11 years) than males (13 years). Thus height in females increases before males.

Primary Sexual Characteristics

- During puberty primary sexual characteristics — the reproductive organs and external genitalia — develop rapidly.

Secondary Sexual Characteristics

- Also secondary sexual characteristics—the nonreproductive traits such as breasts and hips in girls and facial hair and deepening of voice in boys develop. Pubic hair and armpit hair grow in both sexes.
- Sequence of events are the same just the timing is different

Brain Development

- Until puberty, neurons increase their connections. However, at adolescence, selective pruning of the neurons begins. Unused neuronal connections are lost to make other pathways more efficient.

Frontal Cortex

- During adolescence, neurons in the frontal cortex grow myelin, which speeds up nerve conduction. The frontal cortex lags behind the limbic system's development. Hormonal surges and the limbic system may explain occasional teen impulsiveness.

Cognitive Development

- Adolescents' ability to reason gives them a new level of social awareness. In particular, they may think about the following:
 - Their own thinking.
 - What others are thinking.
 - What others are thinking about them.
 - How ideals can be reached. They criticize society, parents, and even themselves.

Developing Reasoning Power

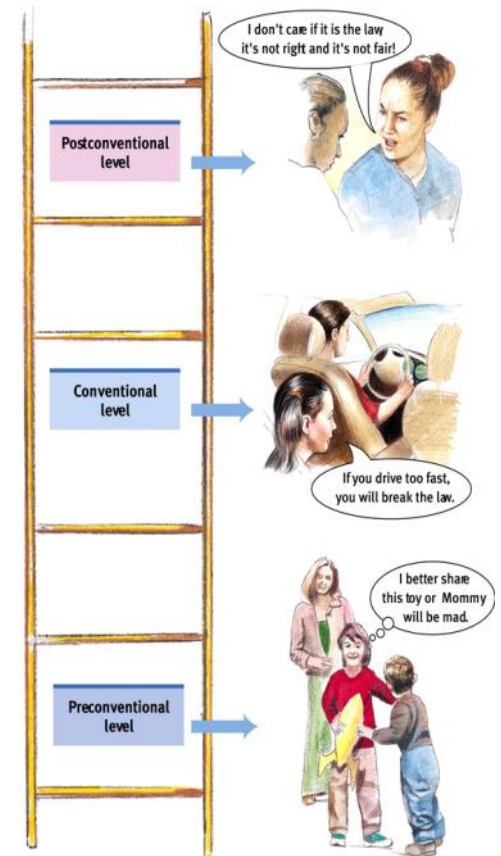
- According to Piaget, adolescents can handle abstract problems, i.e., they can perform *formal operations*. Adolescents can judge good from evil, truth and justice, and think about God in deeper terms.
- The deeper questions in life are being asked to oneself

Developing Morality

- Kohlberg (1981, 1984) sought to describe the development of moral reasoning by posing moral dilemmas to children and adolescents, such as "Should a person steal medicine to save a loved one's life?" He found stages of moral development.
- Typical moral dilemma
- There are stages of moral development

3 Basic Levels of Moral Thinking

1. **Preconventional Morality:** Before age 9, children show morality to avoid punishment or gain reward.
2. **Conventional Morality:** By early adolescence, social rules and laws are upheld for their own sake.
3. **Postconventional Morality:** Affirms people's agreed-upon rights or follows personally perceived ethical principles.



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- Are our ethical principles aligned with societies rules?
- Personal rights and personal freedoms

Morality

- As our thinking matures, so does our behavior in that we become less selfish and more caring. People who engage in doing the right thing develop empathy for others and the self-discipline to resist their own impulses.
- Become less selfish and more caring for others
- We develop this ability as we age
- Moral feelings perceive our reasoning about a dilemma... we often make gut decisions with emotions

Ex. A runaway trolley car is about to kill 5 people... what do you do and kill 5 people or do you switch the track and kill 1 person? When they give people this dilemma the emotional areas light up

Social Development

ERIKSON'S STAGES OF PSYCHOSOCIAL DEVELOPMENT

Stage (approximate age)	Issues	Description of Task
<i>Infancy</i> (to 1 year)	<i>Trust vs. mistrust</i>	If needs are dependably met, infants develop a sense of basic trust.
<i>Toddlerhood</i> (1 to 2 years)	<i>Autonomy vs. shame and doubt</i>	Toddlers learn to exercise will and do things for themselves, or they doubt their abilities.
<i>Preschooler</i> (3 to 5 years)	<i>Initiative vs. guilt</i>	Preschoolers learn to initiate tasks and carry out plans, or they feel guilty about efforts to be independent.
<i>Elementary school</i> (6 years to puberty)	<i>Competence vs. inferiority</i>	Children learn the pleasure of applying themselves to tasks, or they feel inferior.
<i>Adolescence</i> (teen years into 20s)	<i>Identity vs. role confusion</i>	Teenagers work at refining a sense of self by testing roles and then integrating them to form a single identity, or they become confused about who they are.
<i>Young adulthood</i> (20s to early 40s)	<i>Intimacy vs. isolation</i>	Young adults struggle to form close relationships and to gain the capacity for intimate love, or they feel socially isolated.
<i>Middle adulthood</i> (40s to 60s)	<i>Generativity vs. stagnation</i>	In middle age, people discover a sense of contributing to the world, usually through family and work, or they may feel a lack of purpose.
<i>Late adulthood</i> (late 60s and up)	<i>Integrity vs. despair</i>	When reflecting on his or her life, the older adult may feel a sense of satisfaction or failure.

- There is always a task that needs to be achieved at every level

Forming an Identity

- In Western cultures, many adolescents try out different selves before settling into a consistent and comfortable identity. Having such an identity leads to forming close relationships.

Parent and Peer Influence

- Although teens become independent of their parents as they grow older, they nevertheless relate to their parents on a number of things, including religiosity and career choices. Peer approval and relationships are also very important.

Emerging Adulthood

- Emerging adulthood spans ages 18-25. During this time, young adults may live with their parents and attend college or work. On average, emerging adults marry in their mid-twenties.

Adulthood

- Although adulthood begins sometime after a person's mid-twenties, defining adulthood into stages is more difficult than defining the stages of childhood or adolescence.
- Done with cognitive development
- Our brain isn't changing anymore except maybe declining later

Physical Development

- The peak of physical performance occurs around 20 years of age, after which it declines imperceptibly for most of us.
- Athletes are at their peak level at this age and then go downhill afterwards, not the same energy and physical capability as before

Middle Adulthood

- Muscular strength, reaction time, sensory abilities and cardiac output begin to decline after the mid-twenties. Around age 50, women go through menopause, and men experience decreased levels of hormones and fertility.

Old Age: Life Expectancy

1949: 49 years worldwide

2004: 80+ years in developed countries

Benefits and consequences

[Video Homework: Exponential population growth](#)

Women outlive men by 5-6 years in Canada

Why do we age?

-with age our chromosome tips “telomeres” wear out, cells die without being replaced.

- Evolutionary benefit of dying and not consuming resources

[Video: Longevity-Supercentarians](#)

Death-deferral phenomenon

Old Age: Sensory Abilities

- After age 70, hearing, distance perception, and the sense of smell diminish, as do muscle strength, reaction time, and stamina. After 80, neural processes slow down, especially for complex tasks.

Old Age: Motor Abilities

- At age 70, our motor abilities also decline. A 70-year-old is no match for a 20-year-old individual. Fatal accidents also increase around this age.

Cognitive Development

- Do cognitive abilities like memory, creativity, and intelligence decline with age the same way physical abilities do?

Aging and Memory

- As we age, we remember some things well. These include recent past events and events that happened a decade or two back. However, recalling names becomes increasingly difficult.
- Recognition memory does not decline with age, and material that is meaningful is recalled better than meaningless material.
- Our recall memory tends to be better, the differences between young individuals and older individuals becomes evident
- Less educated adults compared to the younger generation (education wasn't a must in the time of the adults) different generations the intelligences may differ also

Aging and Intelligence

- It is believed today that fluid intelligence (ability to reason speedily) declines with age, but crystalline intelligence (accumulated knowledge and skills) does not. We gain vocabulary and knowledge but lose recall memory and process more slowly.
- A number of cognitive abilities decline with age. However, vocabulary and general knowledge increase with age.

- Levels of vocabulary will increase

Social Development

- Many differences between the young and old are not simply based on physical and cognitive abilities, but may instead be based on life events associated with family, relationships, and work.

Adulthood's Ages and Stages

- Psychologists doubt that adults pass through an orderly sequence of age-bound stages. Mid-life crises at 40 are less likely to occur than crises triggered by major events (divorce, new marriage).

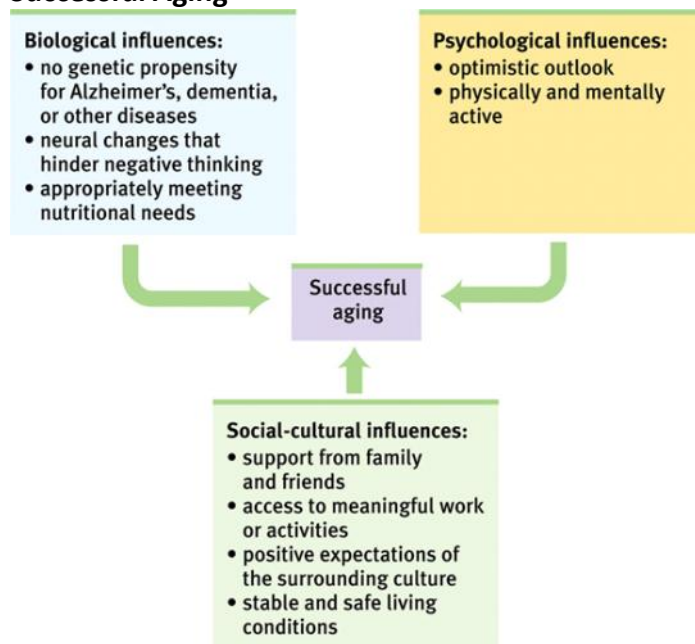
Adulthood's Commitments

- Love and work are defining themes in adult life. Evolutionary psychologists believe that commitment has survival value. Parents that stay together are likely to leave a viable future generation.
- Happiness stems from working in a job that fits your interests and provides you with a sense of competence and accomplishment

Well-Being Across the Life Span

- Well-being and people's feelings of satisfaction are stable across the life span.
- Not normal for the elderly to become depressed but there are other factors that play into it for example their friends (that are their age) around them are dying

Successful Aging



Death and Dying

- The "normal" range of reactions or grief stages after the death of a loved one varies widely. Grief is more severe if death occurs unexpectedly. People who view their lives with a sense of integrity (in Erikson's terms) see life as meaningful and worthwhile.

Reflections on Two Major Developmental Issues

Continuity and Stages...

- Researchers who view development as a slow, continuous process are generally those who emphasize experience and learning. Those with a biological perspective, on the other hand, view maturation and development as a series of genetically predisposed steps or stages. These include psychologists like Piaget, Kohlberg and Erikson

Developmental Issues

Stability and Change...

- Lifelong development requires both stability and change. Personality gradually stabilizes as people age. However, this does not mean that our traits do not change over a lifetime. Some temperaments are more stable than others.