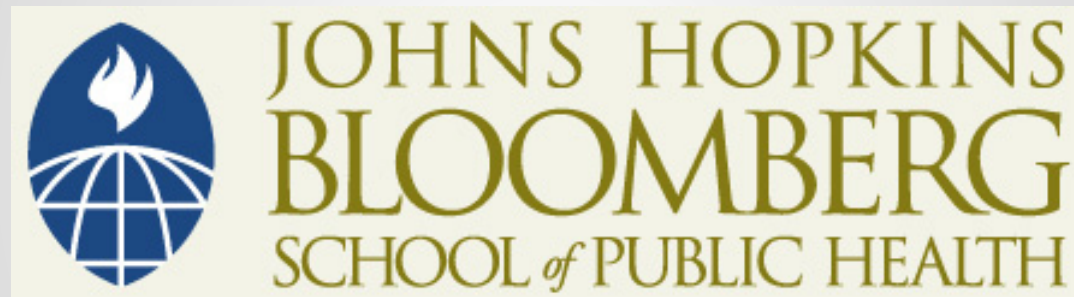


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Copyright 2010, The Johns Hopkins University and Larry Wissow. All rights reserved. Use of these materials permitted only in accordance with license rights granted. Materials provided "AS IS"; no representations or warranties provided. User assumes all responsibility for use, and all liability related thereto, and must independently review all materials for accuracy and efficacy. May contain materials owned by others. User is responsible for obtaining permissions for use from third parties as needed.

# Life-Course Perspective

Larry Wissow

ISBT II -- 2010

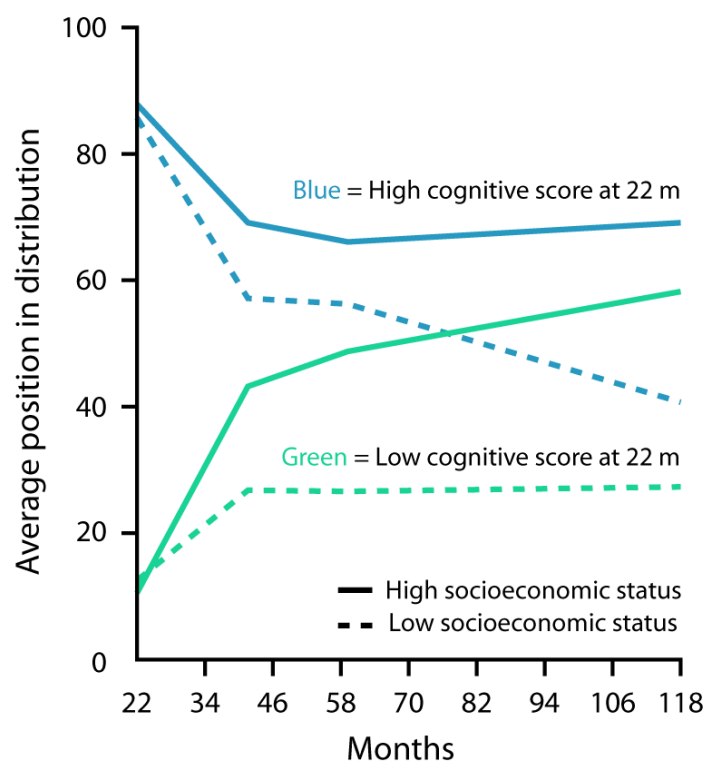
# Berkman, Glass, Brissette, Seeman model

Upstream		Downstream				
Environment (real and perceived)			Individual			
Macro	Mezzo	Micro	Brain mechanisms	Self-perceptions that influence internal states	Behaviors	Outcomes
Culture	Social networks structure	Social support	Emotional filters	Self-efficacy	Risk or harm behaviors	Health states
Socio-economic factors	Characteristics of network ties	Interpersonal influence	Cognitive filters	Narrative coherence, meaning, identity, well-being	Protective or healthful behaviors	Illness
Political structure and policies		Opportunities for engagement attachment	Mechanisms of social learning and influence	Cognitive assessments		
Rapid transitions in any of the above		Access to resources	Temperament or personality	All the above influence internal regulatory states and affect		
Media		Person-to-person transmission				

# Why talk about lifespan development?

- Because some interventions are best early

Inequality in Early Cognitive Development of Children in the 1970 British Cohort Study, at Ages 22 Months to 10 Years



Adapted by CTLT from 1970 British Cohort Study and Fair Society, Healthy Lives: Strategic review of health inequalities in England post-2010. February, 2010. [www.ucl.sc.uk/marmotreview](http://www.ucl.sc.uk/marmotreview).

# Mechanisms of influence

- “Critical periods”
  - Points at which mechanisms governing gene expression seem to be set for a given pathway
    - Early childhood for affiliation and some elements of interpersonal reactivity
  - Learning that “loads” hard-wired brain mechanisms with specific content
    - Self-other constructs
    - Language and vocabulary
- Versus “weathering”

# Why talk about lifespan development?

- To better understand behavior at particular periods of life
  - To better adapt persuasive messages
- Because *development* is often what we seek
  - Helping people change their way of doing things
  - Helping people develop a new perspective on current or planned behaviors
  - Helping people change their sense of who they are and what they can accomplish

# Why is it “macro”?

- The flow of time is a universal force that shapes human behavior
- People age and change in their abilities, social roles, perspectives
- Transitions can be dramatic
- Marked inability to take on the perspective of someone older or younger

# Topic 1

- A social perspective on development
  - It's about the evolution of our sense of who we are and how we fit into the social networks to which we belong



# What is development?

- Growth in capacity for self-regulation
  - Internal milieu – emotional states
  - Relationships and states they trigger
- Greater ability to “make sense” of things
  - Prediction
  - Feeling of understanding causation of events
  - Feeling that responses to our actions correspond to what we expect or intend

# Attachment

- What is attachment
  - Set of underlying “assumptions” about relationships with others
  - In childhood directed toward “attachment figures”
  - In adulthood more generalized
    - Security (feeling comfortable with depending on others or with them being dependent) vs. self-reliance (wanting to be independent and self-sufficient)
    - Support-seeking (seeking more closeness than others want to give) vs. caution (fear of being hurt by closeness)

# Attachment in our model

- Promotes self-esteem
- Ability to form lasting, trusting relationships
- Insecure and anxious patterns associated with
  - Avoidance of and less adherence to medical advice
  - Increased levels of arousal, perceived stress

# Sense-making as a major drive

- Making sense is accompanied by feelings of well-being, relaxation, joy
- Make sense of our lives by telling stories
- The “life narrative” as a universal form of sensemaking
  - Remembering
  - Sharing
  - Explaining

# Psychosocial identity and life narratives

- Satisfying life stories give a sense of *coherence* and purpose to life
  - Consistent sense of self across time, situations, roles
  - More or less consistent responses to social, moral, “hedonistic” demands of living (Erikson)
- Unsatisfying stories
  - Can lead to maladaptive behaviors
  - Associated with increased arousal, stress

# How are life narratives constructed?

- The nature of early interactions
  - Stable, “good enough” sense of self in a very non-verbal way (attachment)
  - Modeling of responses to the environment that promotes emotional regulation
- Role within family
- Role and history of family within community
- What happens to you
  - Congruence with expectations
  - Feedback from others (“co-construction”)

# Development of life narratives

- Cognitive capacity may not fully arrive till adolescence –the story fills in and makes concrete what has been unconsciously learned
- Content
  - Cultural models for what's to be included
  - Reminiscence bumps

# Topic 2

- Models of development
  - Scaffolding
  - Stage models



# Vygotsky and the “zone of proximal development”

- Teachers/parents/mentors provide “scaffolding” that allows for learning in a secure environment
- Help that doesn’t usurp the “internal dialog” in which people make sense of things in their own, unique way
- Fits with theories of brain activity
  - Innate capabilities that still need instruction and interaction with the environment to develop

# Mirror neurons

- Computational model of brain function
  - External stimuli are inherently random
  - We perceive what we have learned to see
- Mirror neurons
  - Parts of the brain that seem designed to help us recognize, copy, and understand the meaning of other people's behaviors
  - Both inherent and acquired abilities (scaffolding)

# Stage models

- Stage models of development
  - Shifts in perspective
  - Inability to envision being older
  - Inability to remember being younger
  - Impact on networks
- Utility of the model
  - First talk about why not so fixed
  - Then talk about why useful

# Stage models of development

- Development proceeds in discrete stages and is unidirectional
- Often useful for general orientation
  - Some grounding in maturation of brain and other body parts/systems
  - Too much grounding in normative experience and culture – thus not as reliable as would be thought

# Children and health knowledge

- Generally seen as having little comprehension up through ages 8-10
- Thought to relate to limitations on cognition
  - Preschool: curious, vague notions of bodily organs, catastrophize injury
  - 5-7: increasing knowledge but much confusion over terms (“bug”)
  - 7-10: first abilities to differentiate symptom from underlying illness

# Scatter in what children know

- 1. How do children get sick?
- 2. How do children get stomach aches?
- 3. Why do children sometimes get bumps or spots on their skin when they are sick?
- 4. Why might you have to go to the hospital?
- 5. How does medicine work?

# Exceptions

- Seriously ill children know a lot about their illness and related procedures
- Children know what they are taught
  - Girls may know more if recruited to care for younger siblings
- Sources of misinformation
  - Medication advertising on “children’s” television
  - Failures of family communication
  - Parents’ own modeling of sick role

# Limitations “real” or cultural?

- Social interactions with adults
  - Give answers adults want
  - Don’t ask for clarification when don’t understand questions
- Don’t understand complicated grammar and vocabulary
  - Double-negatives, multiple subordinate clauses
- Lack of social experience (“metacognitive set”)
  - In this situation, what am I supposed to do
- Difficulty managing abstract concepts



# Erik Erikson's 8 stages of psychosocial development

- 5. Identity versus identity diffusion (adolescence)
- 6. Intimacy versus isolation (young adult)
- 7. Generativity versus self-absorption (middle age)
- 8. Integrity versus disgust and despair (old age)

# Adolescence

- Cultural versus brain maturation
  - Big changes in ability to manage abstractions
  - Big changes in ability to manipulate information about multifaceted problems
  - Evolving ability to use biographical memory
- Huge spike in “right brain” activity
  - Some say most artistically creative period

# Adolescence

- “Oversampled” reminiscence bump in life story
  - For some the most salient part of life
  - Not the only one: migration, military service, professional career training, others?
  - What characterizes these periods?

# Young adulthood

- Intimacy versus isolation
  - Will one risk emerging sense of identity to seek intimacy?
  - Balancing achievement and interpersonal relationships
  - Focus of the life story firmly on the future

# Health attitudes in young adulthood

- Body is resilient
  - Illness and disability seem distant
- Low levels of formal health maintenance
- No time for it!
  - Too much to do
  - Urgency about future
  - Low priority (though willing to engage in it obliquely through wellness activities)
- 30's “biologic clock” initiates formal care

# Middle age

- Generativity versus self-absorption
  - Balancing focus on own generation with attention to those younger and older (generativity)
- “Mid-life crisis” in developed countries
  - Less common than thought; majority feel competent, especially older middle age
- Distortions in life-span -- “all over”
  - Need to shift to new kinds of “expertise” when no longer the “Young Turk”

# “Old age”

- Integrity versus disgust
  - For Erikson, the “ripened fruit” of earlier life
  - The product of successful caretaking, adaptation, acceptance that this was your one chance at life
  - Avoidance of despair over running out of time
  - Critical stage for the life narrative
- As with children, “stage” concept underestimates ability to change

# Real changes with aging



- Reduced visual acuity and light sensitivity
- Slowing of response time
- Greater sensitivity to temperature changes
- Possible reductions in flexibility, mobility
- Return of “metacognitive” knowledge problems
  - No one taught me hierarchical regression
  - Need for specialization reduces breadth of new knowledge



# Misconceptions about aging

- Never make new brain cells
- Personalities never change
- Use it or lose it with regard to physical and mental conditioning
- Can't learn new complex tasks
- Not interested in new things
- Mistake caution for lack of interest

# Use of expertise

- Rubinstein (pianist): compensate for change in capabilities by playing smarter
- Mendelssohn Concerto for violin in E minor, Opus 64
- Yehudi Menuhin 
- Nathan Milstein 

# How medicine mistreats the elderly

- Failure to account for
  - Decreased mobility
  - Need for slower cognitive pace (not less content)
  - Sensory differences and impairments
  - Greater fear of serious illness
- Failure to consider opportunity costs of accessing health care
  - “all I do is go to the doctor”

# Experience Corps

- Matches “seniors” with schools
- 23 cities in US
- School results
  - Decreased absenteeism
  - Increased academic performance
- Senior results
  - Increased ratings of well-being
  - Increased physical activity

# Lifespan takehomes

- Creating a coherent life story is a key developmental task
  - Sufficiently stable to be a guide
  - Understanding of sources of “reminiscence bumps”
  - Revision and re-interpretation are parts of healthy development, therapy, and behavior change

# Lifespan takehomes

- Recurring appearance of the scaffolding principle of learning
  - Collaborative
  - Nothing is “obvious” until you help people learn what they are looking at

# Lifespan takehomes

- Real differences in cognition, metacognition, and perspective over time
- Some of this is brain-driven and a lot of culturally-driven
- At any stage there is plasticity
  - Brain and body function malleable
  - Social roles malleable