Chapter 3

Recent Perspectives on Social and Personality Development

University of Guelph
Psychology 3450 — Dr. K. Hennig
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Chapter 3 in outline

1) Information-Processing Model (Cog. Revolution)
   • acquiring a mind (self)
   • Attachment theory and an integrative model of the un/conscious mind

2) Behavioral Genetics: Biological Bases for Individual Differences

3) Modern Ethology and Evolutionary Theory

4) The Broader Context of Development
   • Vygotsky
   • Ecological Systems Theory
Person as computer

- Does Terminator 2 have a “mind”?
- What does it mean to “have a mind?”
- Is the mind same as “thinking?” “goal-directedness?” “consciousness?” “self-awareness?” “experience emotion?”

INFORMATION PROCESSING MODEL
Freud’s UNC and internal working models

- The mind as a (serial) computer
- Freud’s dynamic unconscious (repression) vs. contemporary cognitive unconscious
Mental content and the role of consciousness

- STM as working memory, an active processing system that holds multiple info ‘on line’
- Three components (Braddley)
  - phonological loop (private speech; Vygotsky)
  - visuospatial sketchpad
  - central executive (the boss)
- conscious “will”: the central executive as agent that chooses words, makes decisions, initiates actions
- able to alter or override a person’s automatic responses or act contrary to impulses

Thinking as multifaceted?
A thought sample from Sherlock Holmes

“... I instantly reconsidered my position when... it became clear to me that whatever danger threatened an occupant of the room could not come either from the window or the door. [hyposthesis testing]
My attention was speedily drawn... to this ventilator, and to the bell-rope which hung down to the bed. The discovery [observation] that this was a dummy, and that the bed was clamped to the floor, instantly gave rise to the suspicion that the rope was there as a bridge for something passing through the hole, and coming to the bed. The idea of a snake instantly occurred to me, and when I coupled it with my knowledge that the Doctor was furnished with a supply of creatures from India I felt that I was on the right track...”
Piaget and the social information processor

- active inquiring individual asking the “why?” question, i.e., seeking a causal explanation
  - internal vs. external attributions (causes)
- persons as seekers of meaning - our intelligence presumes intelligibility
  - we as questions anticipating that there are answers
- E.g., reactive aggressive children have a ‘hostile attribution bias’

“The automaticity of being”
(Bargh; see Reading on website)

- e.g. eating at 6:00 despite not being hungry
- Executive function and the frontal lobes
Do you see a young or an old woman?

The case for subliminal perception (Marcel)

priming of A1 or A2, then asked if boy in B has a “good” or “bad” character.

Free associations and “slips” (Nisbett et al., 1977)
- viewed pairs (“ocean-moon”)
- free associate to other single words (e.g., “detergent”)
- said “Tide” - my mother used
- influences decision-making
The cognitive unconsciousness
Attention & dichotic listening

- attended message: “they threw stones towards the bank yesterday”
- shadow words: either “river” or “money”
- Recognition of meaning (a) “threw stones towards the side of the river”; (b) “… savings and loan company”

Mind (LTM) as an associative network

- Spreading activation model
- e.g., substance abusers - “joint” - “carpentry” or “marijuana/pot”?
- Note: receptor inflow largely comes from the environment (learning) vs. instinctual/id-like impulses (nature)
- computers operate largely on their software (learning)
Two types of “unconscious”

- Contemporary cognitive unconscious
  - not conscious despite its being non-threatening
  - automating behavior has a function: limited ego-capacity, fast, efficient, (overlearned - skills, “how to?”)
    - e.g., riding a bike, playing piano, habitual driving
    - begin with a tennis/ski instructor - bad habits are difficult to break (automatized)
    - Freud’s “Descriptive Unconscious”

- Freud’s dynamic unconsciousness
  - defenses aimed at protecting person from unpleasant emotions that threaten self-esteem
  - repression and active effort to keep outside of conscious awareness

Defense mechanisms - Protection from undesirable unconscious motives.

- A student gets mad at his girlfriend after flunking a test
  - Displacement

- A minister preaches about the evils of homosexuality and then turns out to be homosexual himself
  - Projection

- A woman develops a crush on a shy, quiet man who is the opposite of her narcissistic father
  - Reaction Formation
Defense mechanisms (contd.)

- Two years after being dumped by Sally, John fails to even recognize her at a party
  - Repression
- Mary started writing poetry after her mom died
  - Sublimation
- Freud was late for his father’s funeral
  - His car broke down

Bowlby’s “defensive exclusion”

- Argument against the dynamic unconscious as a result of repression
  - e.g., the argument from trauma (e.g., Vietnam war, sexual abuse, rape)
  - victims typically are able to recall episode (though often avoid associations with the episode)
Perception as a ‘two-way street’
no perception without interpretation

- attention can be directed away from threatening information (defensive exclusion of information from further processing)
- perceptual blocking & exclusion in LTM involves some amnesia

Summary

- evaluations, judgements, behaviors, moods, & words (i.e., responses to stimuli) are influenced by automatic cognitive processes outside of awareness
- For Bowlby (& Freud) what information is excluded and why it is excluded are central to psychopathology? (detecting lies from gaps in the story; lack of coherence)
  - The problem of executive control: “where unconscious was there shall consciousness be” (Freud)
BEHAVIORAL GENETICS

- To what extent do specific abilities, traits, and patterns of behavior depend on particular combinations of genes?
  - Genotype: the set of genes one inherits
  - Phenotype: one’s manifest characteristics
- Behavioral attributes as the end product of a long and involved gene-environment interplay
- Twin studies help us understand the importance of genetic and environmental influences on social development
  - Identical (MZ) vs. Fraternal (DZ) twins
  - Reared together vs. reared apart

Identical twins are more similar than fraternal twins

<table>
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<th>Correlation coefficients</th>
<th>Identical (MZ)</th>
<th>Fraternal (DZ)</th>
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<td>IQ</td>
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<tr>
<td>Social attitudes</td>
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Behavioral genetic (contd.)

- Correlation coefficients vs. concordance rates
- Behavioral geneticists examine three influences on social development:
  - 1. Genetics
  - 2. Shared environment (parenting style, home environment) - makes children similar
  - 3. Non-shared environment (childhood illness, friends and teachers) - makes children different
- $H = (r_{\text{identical twins}} - r_{\text{fraternal twins}}) \times 2$
- $SE = 1 - (H + NSE)$

Heritability of personality

<table>
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<tr>
<th>Five-Factor Model</th>
<th>Genetic</th>
<th>Shared</th>
<th>Nonshared</th>
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MODERN ETHOLOGY AND EVOLUTIONARY THEORY

- (defn) the scientific study of the evolutionary basis of behavior - how does behavior X contribute to the survival or adaptiveness of a species (vs. individual)
- key: random mutation + natural selection
- survival of the most adaptive
  - fitness <-> rugged individualism
- Method of investigation: naturalistic observation
- Sex and aggression (so Freud's id)

Modern Evolutionary theory
Adaptiveness and design

- Why are bee hives composed of hexagonal substructures?
- Animals frequently benefit others
  - parental (kinship) altruism - William Hamilton (a rejected 1963 publication); e.g., bird who risk's its life to save the chick; warning call-outs
  - Reciprocal altruism (Trivers, 1971; fish that clean the gills of a different species of fish; issuing a warning call)
Selfish or altruistic?

- Darwin’s selfish chimp meets Hamilton’s altruistic chimp - personal survival vs. genetic survival
  - e.g., a foraging chimp finds an abandoned bee hive with 6 good honeycombs, but she can only eat three
- option 1: selfishly keep it for oneself, but can only eat three (individual profit = 3)
- option 2: give the “food call” and share with other two
  - individual profit (6 / 3 = 2 combs a piece)
  - brother (shares ½ genes) - family profit = add ½x2 = 3
  - cousin (shares 1/8 genes) - family profit = add 1/8x2
  - total family profit = 2 + 3 + .25 = 5.25

ETHOLOGY AND HUMAN DEVELOPMENT

- Lorenz’s imprinted geese
- Bowlby and human attachment
- Care-seeking - care-giving system
  - cry of infant as an innate distress signal ensuring:
    (1) infants needs are met; (2) proximity of protection
  - evokes care-giving response from adults
- Role of learning:
  - attachment has an aim, but lacks a specific object
  - later will learn to discriminate primary caregiver from strangers
Heredity and environment

- Passive genotype/environment correlations
- Evocative genotype/environment correlations
- Active genotype/environment correlations

Neo-analytic Theory: Erikson

- Instinctual drives are important, but so are social drives
- Parents are important, but so is society
- Early childhood is important, but development occurs over the whole life span
- Key Concept: Psychosocial stages
  - Similar to Freud's psychosexual stages
  - Each stage has a crisis (e.g., trust vs. mistrust; identity vs. role confusion; intimacy vs. isolation)
  - Move to next stage after resolving crisis
  - Moving through 8 stages is how identity develops
BROADER CONTEXT OF DEVELOPMENT

VYGOTSKY

- Social construction of the mind - many of our personal characteristics and cognitive skills evolve from social interactions
- Our elementary mental functions are transformed into higher mental functions by culture, e.g., socially transmitted memory strategies
- Less emphasis on self-initiated discovery (Piaget) and more on the role of the “other”
- Discovery takes place during cooperation and dialogue (zone of proximal development)
- The mind as an internalized discourse (“private” speech)

Our interpersonal nature (C. 2)

- child hits playmate to gain control of toy
- child tries hitting again as a means of achieving objectives (generalizes)
- adopts bullying as a habit
- Playmate withdraws
- Playmates “give in” once more, further strengthens child’s aggressive inclinations
- others avoid the bully, unpopular, social isolation, restricted opportunities to cooperate
ECOLOGICAL SYSTEMS THEORY

- Microsystem, Mesosystem, Exosystem, Macrosystem

Integration - hard/wet ware
Spock as the ideal rational “man”?
Star Trek: The Next Generation

Data: Android – subhuman machine
Counselor Deanna Troi; half-human/half-alien (Betazoid)

Artificial intelligence (AI): Problem solving by computer

- Can mind be contained within silicon (e.g., Star Trek Borg’s)
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