**Albert Bandura (1925-present)**

- Up until the 1960s, learning theorists (i.e. Skinnerians) utilized individualistic experiments; not social
- Bandura asserted that social situations provide considerable cognitive development
- Observational learning and modeling for behavior
- The impact belief has upon our efforts – self-efficacy
- Professor Emeritus at Stanford University
  [http://psychology.stanford.edu/abandura](http://psychology.stanford.edu/abandura)
- Bandura’s Theoretical Work & Altering Course
  - Initially Bandura set out to the Skinnerian model alone is insufficient
  - The power of modeling was his focus
  - Since the mid-1980’s, a slight paradigm shift where modeling is less powerful than successful performance

**Observational Learning**

- General thoughts on Observational Learning
  - More than a slow process of trial and error, learning occurs by observing in a social milieu.
  - A distinction here from Skinner: learning theory must include cognitive variables.
  - *Vicarious Reinforcement* – prediction of the most probable outcome from our behavior.
  - The idea of learning from models extended beyond live models to incorporate symbols (*symbolic models*). Examples include watching media (television, computer, etc.), reading a book, verbal instruction, etc.
- Four Components of Observational Learning
  1. **Attentional Processes**
     - Models are attractive or distinctive, garnering our attention.
  2. **Retention Processes**
     - Creating and connecting symbols (*stimulus contiguity*) so that we are able to remember models previously observed for later imitation. Whether visual images, shortened directions, rhymes, etc.
  3. **Motor Reproduction Processes**
     - Observation may provide the *pattern* of response for imitation, but for successful reproduction the required motor skills must be available.
  4. **Reinforcement and Motivational Processes**
     - Making the distinction between *acquisition* and *performance*: we acquire through observation but this alone does not necessarily guarantee reproduction or performance. Performance requires motivation.
     - *Direct Reinforcement* – what is my personal past experience from performing the behavior?
     - *Vicarious Reinforcement* – what have I observed others experiencing as consequences for the specific behavior?
     - *Self-Reinforcement* – how do I evaluate my behavior (e.g. *self-regulation*)
Socialization Studies

- Aggression
  - Aggression is connected to operant conditioning through reward and punishment.
  - Classic Bobo Doll experiment with children
    - Note that vicarious punishment blocked *performance* but not *acquisition*
    - Newly introduced incentive “trumped” observed punishment
    - *Inhibited & Disinhibited* behaviors: newly observed consequences influencing the performance of previously learned behaviors
  - Implications for aggressive/violent media (esp. for children)

- Gender Roles
  - Note this is not a denial of genetic traits and/or influences
  - Illustration of distinction between *acquisition* and *performance*; children may observe behaviors of both genders but perform what is reinforced

- Pro-social Behavior
  - Sharing, helping, cooperation, altruism, etc.
  - “Do as I say, not as I do!” – Distinction between preaching and practicing. While forceful instruction may have minimal impact, observation of the pro-social behavior will be reproduced (even when no instruction to imitate). Assertion that forceful instruction to the point of being *commands* will backfire inhibiting performance of desired behavior and potentially initiating resent.

- Self-Regulation
  - Evaluative criteria adopted from observation
  - Assertion that children espouse evaluative criteria from peers above those of adults

Self-Efficacy

- Regulating our own behavior requires self-observation: *self-efficacy appraisals*
- These have a direct impact on motivation
- Basing self-efficacy appraisals on:
  1. *Actual Performance* – repeated success at a task/behaviors
  2. *Vicarious Experience* – observing others succeeding at a task/behaviors
  3. *Verbal Persuasion* – the good ol’ “pep talk”. Notice the *social* element here and that we are not talking about cognitive behavioral therapy (CBT) self-talk.
  4. *Physiological Cues* – assigning physiological manifestations as indicators of success/failure
- Optimism is king:
  “Tenacious strivers believe so strongly in themselves that they are able to exert extraordinary efforts and suffer countless reversals in pursuit of their vision.” – Bandura
  “To succeed, one cannot afford to be a realist.” – Bandura
Lev Semenovich Vygotsky (1896-1934)

- Finding a combination of intrinsic natural development (i.e. Gesell, Werner, Piaget, etc.) and external social-historical development.
- Vygotsky & Marxism: The Russian Revolution
  - *Social-Historical*: making/using tools, together (social) but this changes over the course of history (historical) with cultural/political changes.
  - *Dialectical*: conflict & resolution just as Hegel had described, however where Hegel saw this as conceptual, Marx believed ideas were superficial; merely justifying political and economic actions.
  - Analysis of consciousness is pointless; thought is dependent upon the material life.
  - Creation and use of tools led to uniquely human development.

Psychological Tools

- Physical tools to master the environment, psychological tools (or signs) to master behavior
- Speech as a sign (or tool) that removes our thinking from the immediate context; enabling reflection (on the past) and preparation (for the future). This use of signs becomes mediated behavior.
- Writing as a sign system
- Numbering Systems as a sign system
- Intrinsic natural line of development + sign systems cultural line of development
  - Vygotsky valued developmentalists (i.e. Gesell, Piaget) and even recognized potential predominance in early cognitive development (e.g. birth – 2 years)
  - Speculation that highest levels of thought occur only in individuals with psychological tools for representing abstract concepts (i.e. writing, math, etc.)
  - Interesting observational experiment with Siberian peasants. Question to consider here is does this indicate that they are unable to conduct higher-order abstract thinking or that they have different higher-order abstract thinking?

Memory Aids

- The use of memory aids as indicators of metacognition or metamemory
Speech

- Development of speech as a psychological tool for removing conscious thought from the immediate context/situation:

<table>
<thead>
<tr>
<th>Stage*</th>
<th>Defining Characteristics</th>
</tr>
</thead>
</table>
| **Audible/Social** | Verbal references to absent objects directed to and/or initiated by others  
Child: “Daddy, where is my toy?”  
Father: “Son, where is your toy?” |
| **Audible/Individual** | Verbal references initiated by the child, gradually diminishing in volume and length  
Child: “Where did I put my toy?”  
Child: “Hmm..my toy…” |
| **Silent/Individual** | Initiated references are now *inner speech*: a silent dialogue within the child  
Perhaps noticing child pausing and thinking, but not hearing any words. |

*NOTE: Stage names are my own description NOT from Crain or Vygotsky.

- Extending this model to the internalization of all social interactions. Thus all functions in cultural development appear twice: first socially and then psychologically
- Egocentric Speech
  - Piaget coined the term and observed, but considered it relatively useless
  - Vygotsky viewed as problem-solving
  - Piaget believed egocentric speech decreases until egocentrism is done extinguishing the need for egocentric speech. Vygotsky asserts this becomes *inner speech* and is therefore valuable for higher thinking.
- Self-Control
  - Utilization of speech as verbal self-regulation
  - Words as artificially-created stimuli to direct behavior
  - Again, following a similar progression from social (outer) ⇒ psychological (inner)
- Inner Speech
  - Abbreviated
  - *Sense vs. Meaning*: more than just a definition, inner speech allows feelings (*sense*) to be associated with words

Play

- Evidence of adhering to rules for social play; rules both expressed and implicit
- Taking pleasure in following the rules even when not “forced” to do so (i.e. pretending to be puppies and not walking but crawling)
- Prototype of later self-regulation

Schooling & Education

- Valuing school and instruction as imparting culture and facilitating social⇒psychological tools
- *Scientific Concepts vs. Spontaneous Concepts*
  - Scientific: Abstract concepts taught through adult instruction
  - Spontaneous: Children learn on their own
- Instruction moves cognitive development forward; children are able to work towards understanding *scientific concepts* through secured *spontaneous concepts*
- Flexibility within the timeline of development; not a direct correlational developmental curve
- Where Piaget was critical of teacher-directed instruction, Vygotsky recognized the need
- Zone of Proximal Development
  - Actual developmental level vs. potential developmental level with assistance (adult or peers)
  - Instructional and diagnostic functions
  - Scaffolding with ZPD in mind to successfully propel students to further development