

The Educational Contributions of Jean Piaget, Howard Gardner, B.F. Skinner, and Albert Bandura

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EDP 2002 Prof. John Connor

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Jean Piaget



Jean Piaget

- Was a *psychological constructivist* (1896-1980)
- Believed learning involved an interplay of **assimilation** and **accommodation**
- **Assimilation** is the adjustment of the interpretation of new experiences to fit prior concepts (assimilating new information)
- **Accommodation** is the adjustment of concepts to fit new experiences (adapting or changing beliefs to fit new phenomena)

Jean Piaget

- The alternation between **assimilation** and **accommodation** leads to short-term learning and long-term *developmental change*
- Piaget proposed four major stages for the cognitive development of children which build up and cannot be skipped (staircase model):
 - 1.) Sensori[-]motor intelligence
 - 2.) **Pre[-]operational** thinking
 - 3.) **Concrete** operational thinking
 - 4.) **Formal** operational thinking

Howard Gardner



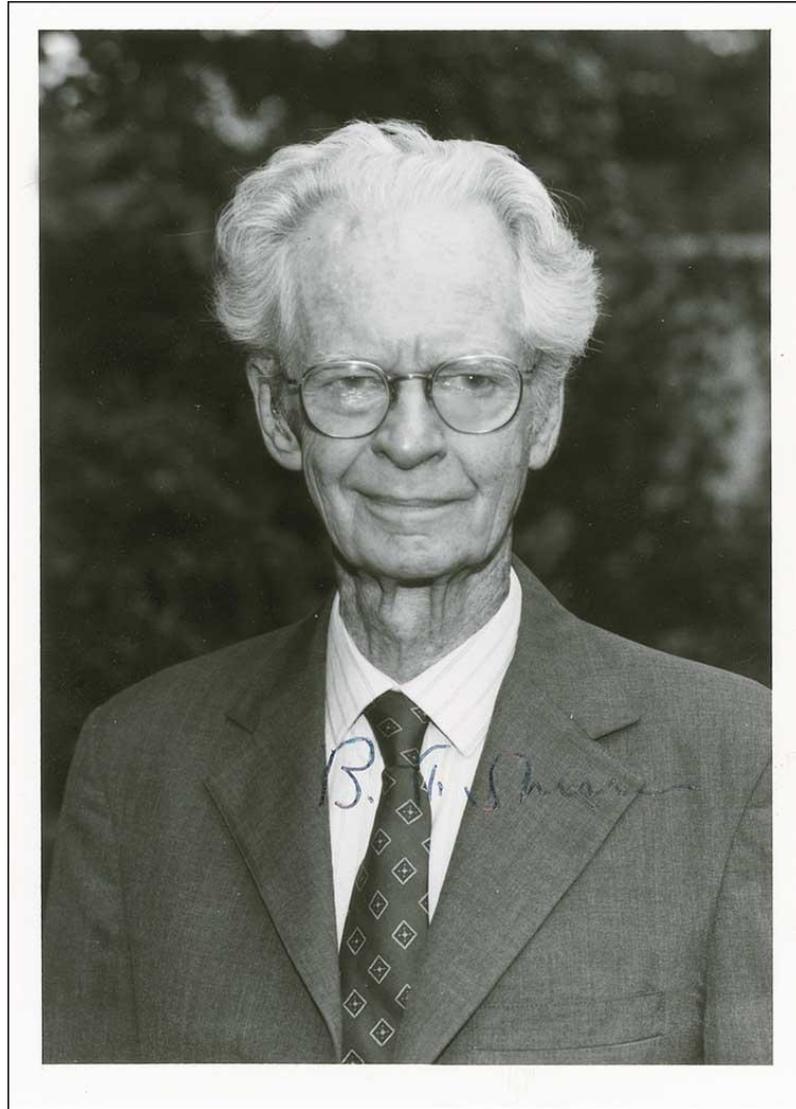
Howard Gardner

- Is a *developmental psychologist* (19430711-P)
- Proposed a **theory of multiple intelligences** in 1983 and refined it in 2003
- Says there are at least 8 forms of intelligence that function independently of each other:
- Linguistic, logic-mathematical, musical, spatial, bodily kinesthetic, naturalist, interpersonal, and intrapersonal
- Is considering a 9th *existential* intelligence

Howard Gardner

- Each person has a mix of the intelligences and everyone has a different level of development in some versus the others.
- A person does not necessarily use the same type of intelligence you would expect them to use, i.e. a pianist could be using logic-mathematics more than music when playing, and linguistic and/or intrapersonal intelligence when composing.

B.F. Skinner

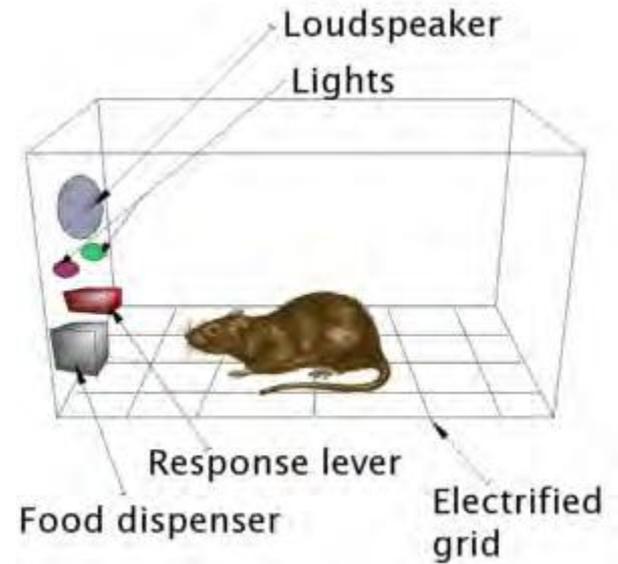


B.F. Skinner

- Was an American *behaviorist* (1904-1990)
- Put a rat in a cage with a lever to release food pellets and discovered the rat would find the lever and use it over and over to get food.
- Called the rat's behavioral changes **operant conditioning**, the pressing of the lever the **operant**, and the food pellets the **reinforcement**.

B.F. Skinner

- The rat experiment can also be applied to school-children, i.e. the **operant** could be the reading of a good book and the **reinforcement** could be the teacher putting a gold star by the student's name on a public list in the classroom for the reading of said book.



Albert Bandura



Albert Bandura

- Is a *developmental psychologist* (1925-2004-P)
- Refined **self-efficacy theory**, in which personal beliefs become a primary and explicit explanation for motivation
- Example: A student believes he can write a passing term-paper, so he does so
- NOT an example: A student has a healthy level of self-esteem, so he writes a passing term-paper

Albert Bandura

- Also NOT an example: A student has written a good term-paper in the past, so he repeats
- **Self-efficacy** is self-constructed and is like confidence, but is definite, not abstracted
- The dark side to self-efficacy is it can lead to only approaching easy tasks, obsessing over easy or hard tasks at the occlusion of more important life goals, or **learned helplessness** (a type of depression) if self-efficacy is too low