

PSYCH 282 REVIEW 1

(Chaps. 1, 2, 3, and Wapner's Perspectivism Reading)

Major questions:

Is chapter 4 included

MC or short answer

Broad ideas or specifics

Perspectivism

- Inquiry and knowledge are always biased
- Just as any object is always observed from some viewpoint, psychological phenomena are always viewed from some "perspective."
- Organismic variables of all kinds: biological structure, temporary need states such as hunger, social role, specific past experience, developmental status,
- There is no objective viewpoint
- Three Mountain Study by Jean Piaget
 - Children are egocentric
 - Around age 6/7/8 children gain the ability to see things from other people's viewpoints
- Thus, the appearance of an object depends, in part, on:
 - (1) the position in space from which it is viewed,
 - (2) characteristics of the person who is viewing it (e.g., their motivation, past experience, developmental status, etc.), and
 - (3) the instruments which are used to observe.
- Interpretationism "...is the epistemological principle that mind does not apprehend an object which is given to it in completed form, but that through its activity of providing interpretation or conferring meaning or imposing structure, mind in some measure constitutes or 'creates' the object known" (lavine, 1950a, p. 526).
- According to interpretationism, the organism's construction of the object of perception and thought is 'the most basic cognitive process, because the organism is, so to speak, shaping or constructing the world of objects.
- World Hypothesis
 - Formism
 - Contextualism
 - Organicism
 - Mechanism

Chapter 1 - What Is Learning

- Learning is typically measured by behavioral change
- Imprinting: a formation of attachment between an organism and its environment/environmental object during a critical period of development
- Conditioning
 - Classical Conditioning (Pavlov)
 - US linked to CS
 - US leads to UR
 - Eventually CS causes UR
 - UR linked to CR
 - CS causes CR
 - Instrumental Conditioning (Skinner)
 - Skinner Box
 - Reinforcing desired behaviors
 - Punishing undesired behaviors

Chapter 2 - Approaches to the study of learning

- Naturalistic observation
 - Difficult to observe and record data accurately
 - There is a tendency to classify events into too comprehensive chunks
 - Elementism: breaking chunks into smaller components of study
- Aspects of Theory
 - Theory has a formal aspect which includes the words and symbols of the theory
 - Empirical aspect which is the physical events the theory tries to explain
 - A scientific law can be defined as a consistently observed relationship between two or more classes of events
- Theory
 - Synthesizing function which attempts systematically to explain a large number of observations
 - Heuristic function which points the way to further research
- Principle of Parsimony (AKA Occam's Razor or Morgan's canon): when two equally effective theories can explain the same phenomenon, but one explanation is simple and the other is complex, we must use the simpler explanation.
- Experiments
 - Definition of a theoretical term: operational definition
 - Common operational definition of learning rate is: trials to criterion - number of times a subject must be exposed to material to retain the information
 - Dependent variables are changed

- Independent variables are measured
- Decisions
 - What aspects of learning should be investigated
 - Should idiographic (one subject, wide variety of circumstance) or nomothetic (average data across groups) technique should be used
 - human s vs nonhuman animals as subjects
 - Correlational techniques (Ie. IQ as measure of intelligence measures a response to a response) vs experimental techniques (Stimulus-response model)
 - Which independent variables should be studied
 - What levels of the independent variables should be studied
 - Choice of dependant variables
 - Data analysis and interpretation
- Thomas Kuhn's View
 - A viewpoint shared among scientists is a paradigm
 - Paradigm's change with scientific revolutions
 - It is difficult to want to prove something against a paradigm, it takes a lot to shift it
- Karl Popper's View
 - Scientific theory is distinguished from non scientific theory by the principle of refutability
 - Scientific theory must make predictions about what will happen and be risky (able to be proven wrong)
- Reconciliation
 - Kuhn's view is what science historically has been
 - Popper's view is what science should be

Chapter 3 - Early Notions about Learning

- Epistemology is a branch of philosophy that is concerned with the nature of knowledge
- Aristotle and Plato: Rationalism: the mind is actively involved in the attainment of knowledge
 - Plato - nativism: knowledge is innate
 - Aristotle - empiricism: sensory experience is the basis of all knowledge
 - Pythagoreans - believed the universe was governed by numerical relationships
 - Numbers cause events in the world
 - Plato's interpretation: the abstract has an independent and influential existence
- Reminiscence Theory of Knowledge
 - Plato

- All knowledge is recollection of experience our souls had in heaven
- Aristotle
- Laws of association / associationism
 - Law of similarity
 - Law of contiguity
- Beginning of Modern Psychology
 - Rene Descartes
 - I think therefore I am
 - Innate ideas integral to the mind
 - Thomas Hobbs
 - Appetites vs aversions govern behaviors
 - John Locke
 - Tabula Rasa
 - Everyone is born a blank slate
 - There is nothing in the mind that is not first in the senses except for the mind itself
 - George Berkeley
 - Nothing exists unless it is perceived
 - David Hume
 - We can be sure of nothing, we cannot truly trust/know our experience are accurate
 - Immanuel Kant
 - Innate mental facilities are imposed over experiences and sensory information
 - John Stuart Mill
 - The whole is different from the sum of its parts
 - Thomas Reid
 - Refuted Hume with the idea of “naive realism”- assume your experiences are the truth of the world
 - Franz Joseph Gall
 - Phrenology - parts of the skull tell you about the brain
 - Charles Darwin
 - Evolution
 - Science of behavior
 - Change from: “How do we think” to “Why do we do what we do”
 - Hermann Ebbinghaus
 - Retention curve
 - Memory of nonsense syllables
 - Impact of meaningfulness on learning and retention

- Logarithmic curve of forgetting (strongest in early hours, forgetting eventually drops off to no increase in forgetting)
- Psychology's Early Schools
 - Voluntarism
 - Wilhelm Wundt
 - Selective attention is apperception
 - Willful arrangement of thoughts and human will leads to creative synthesis
 - Structuralism
 - Edward Titchener
 - Reporting of immediate stimulus
 - Compound ideas over simple ones referred to as stimulus error
 - Failed in its failure to embrace the theory of evolution
 - Ignored the subconscious and applied psychology
 - Functionalism
 - William James
 - A person's conscious works as a whole, not in specific discrete parts
 - The relationship between consciousness and the environment rather than in isolation
 - Behaviorism
 - John B. Watson
 - Consciousness cannot be reliably studied
 - Behavior is what we can see, so behavior is what we will study
 - Little Albert experiment
 - Changed psychology's goal from attempting to understand consciousness to the prediction and control of behavior

Condensed Class Notes

- Jean Piaget
 - Stage Theory
 - Three mountain theory
- Instrumentalities
 - What you use to collect data
 - Inherent random or systematic error
- Converging Methods
 - Using multiple methods of study to minimize inherent systematic error
 - Using different instrumentalities
- Hubble Lesson

- Use multiple instruments because instruments can be wrong or faulty
- Consistent = reliable NOT validity
- The Notion of a Theory
 - A “theory” frames a problem for us
 - What theoretical perspective are you adapting
 - Different agendas / motivations
 - Different aims
 - Different approaches
 - Different levels of sophistication
 - One study does not a phenomenon make
 - How do you build on other research
- Clinical Psychological
 - View variables such as socialization, trauma, exposure, etc.
- Behavioral Neuroscience
 - Neurochemicals and biology as a basis
 - Neurotransmitters: dopamine, serotonin
 - Territory connections / genetic predispositions
- Piaget
 - Three Mountain Study
 - Age 4-6 - children are egocentric
 - Age 7 or 8 - children began to understand other viewpoints
 - All knowledge is biased as a comes from a perspective
- Thelma Lavine
 - Interpretationism (1950)
 - You do not understand an object as a whole until you understand its parts/use
 - You understand things only through experience and biases
 - Your brain fills in gaps in things
- World Hypotheses
 - Epistemology - study of how we know
 - Root metaphor - fundamental metaphors for understanding the world
 - Formism
 - Ex. Carl jung and trait theory
 - Root metaphor - similarity
 - Category system
 - Analytic - elementalistic / reductionism
 - Dispersive
 - Strength - scope
 - Weakness - lack of precision
 - Not predictive

- Mechanism
 - Ex. Pavlovian responses
 - Metaphor - machine
 - The world works like a machine
 - Cause - effect
 - S-R
 - Analytic
 - Integrative
 - Strength - precision (predictive on future interactions)
 - Weakness - scope (limited to current technology)
- Contextualism
 - Ex. cultural psychology
 - Metaphor - historical events
 - Everything has a context (history etc.)
 - Nothing can be separated from the context it occurs in
 - People affect the environment and the environment affects people
 - Events co-occur
 - Synthetic
 - Dispersive
 - Strength - scope (everything has a context)
 - Weakness - precision (ignores cause - effect)
- Organicism
 - Ex. jean piaget - stage theory
 - Orthogenetic principle by Heinz Werner
 - Diffuse knowledge to differentiation of knowledge
 - The world acts like a living being
 - Metaphor - life
 - Goal directed
 - Teleological - movement towards a final ideal end state
 - Synthetic (synthesis) - people and environment cannot be separated
 - Integrative
 - Strength - precision
 - Weakness - scope
 - Cause and effect have a feedback loop
- Less used
 - Animism - the world is a living thing
 - Mysticism - controlling beings / demons
- Which you see depends on personal predilection
- Depends on

- Scope - what it covers
 - Precision - predictive capacity
 - Scientists are prognostications - making predictions about the future
 - Precision goes with integration.
 - Anything dispersive has a weakness with precision
 - Each world hypothesis is relatively adequate
- High Crimes of Science
 - Fabrication - making up data
 - Falsification - changing or misreporting data
 - Plagiarism
- World Hypothesis
 - Theories
 - A body of principles used to base assumptions (assumptions are not tested)
 - Empirical hypothesis
 - Tested directly
 - A conjecture about a relationship between an observable condition and behavior
 - Must be risky - able to be proven wrong
 - The way you ask a question determines your answer - what you deem acceptable and what leads you follow
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- Eclectic Approaches
 - Draw from multiple approaches to make sense of the world
 - Context
 - Be open to the author
 - Question meaning and validation
 - Establish goals of the investigator
 - How does this work with other research
 - Intellectual humility
 - Knowing you could be wrong and accepting that possibility
 - Being willing to go against the paradigm
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