

Co-authoring Psychology Courses with Students

A transformative activist approach to
undergraduate teaching in a
Community College

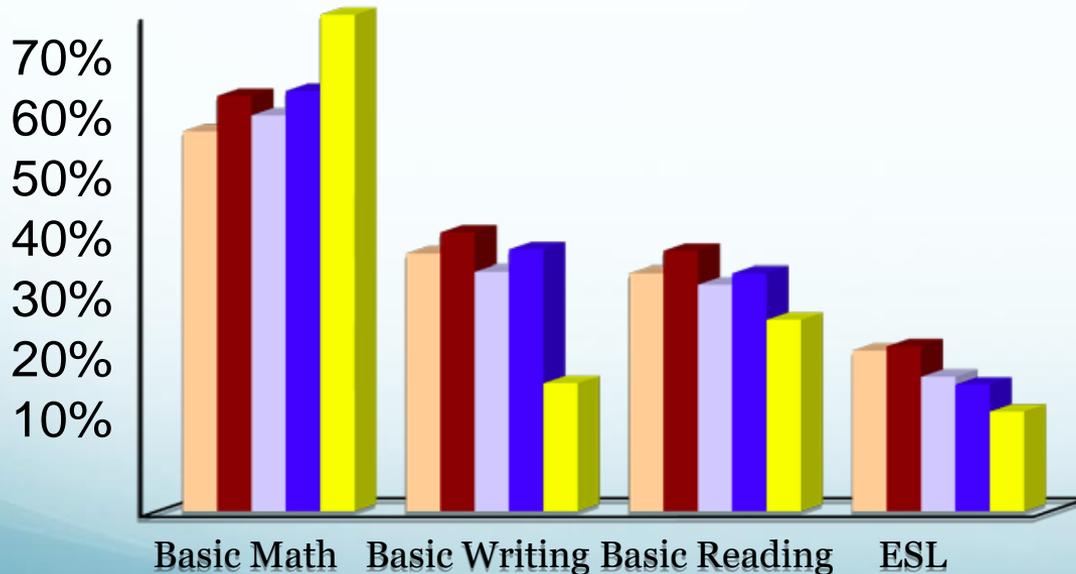
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Expanding Student Agency in Psychology Courses

- Need to create better opportunities to engage students more agentively in the learning process.
- Community College
- Current trends in Higher Education Research
- Vygotskian theory expanded by Transformative Activist Stance (TAS)
- Own Research on Co-curriculum – PALC
- Explore Teaching as Co-Authoring – Pedagogical principles
- Examples from my teaching practice- Lessons, Activities

Community colleges- LaGCC

- Open admissions: most diverse students in terms of age, race and ethnicity, ability, and career aspirations.
- Low-income minority student body (81 % report household income less than \$25,000)
- Over 50% of students are foreign born; over 100 languages natively.
- Basic Skills Needs (2007-11)



- Low graduation rates
- “Just 20 percent of full-time students seeking a degree get one within three years. That number rises to 35 percent after five years, but by then another 45 percent have given up completely and are no longer enrolled. With graduation rates that low, community colleges can be dead ends rather than gateways for students.”
- Susan Dynarski, for the NY Times, March 11, 2015

Faculty-Student Contradictions

Faculty's Issues with students	Students Issues with Learning
<ul style="list-style-type: none">• Fail to sufficiently engage with their courses and with college life• Appear to lack motivation and interest• Don't read; can't write• Perform below their potential• Do not, and do not know how to, approach faculty	<ul style="list-style-type: none">• Complicated lives (juggle work, family, and study)• Many courses demand previous knowledge and skills not yet mastered• Relate to academic knowledge (course content) as inert abstractions of little relevance to their practical pursuits- disconnect from academic learning

CC Students' Stance Toward Learning

- Learning as mere acquisition of information and perfecting mechanical skills--students as passive “receivers” of knowledge and meaning.
- A good teacher tells them what they need to know so that learning can proceed smoothly
- Knowledge as finite, static, ready-made, produced by experts (authority) and consumed by learners, neutral, unproblematic;
- Mind as container; not an active process of drawing inferences, considering implications, taking positions

Liberal Education Reform

- Broad reform movement is currently underway in postsecondary education (Keeling, 2004; Thelin & Gasman, 2011)
- Transform utilitarian learning outcomes-- responsible for the failures of higher education as it reifies education as a commodity.
- Move beyond transmission model based on memorization and narrow skills.
- Constructivist principles plus sociocultural tenets (active, collaborative, experiential, inquiry-based, transformative learning.
- **Active Learning:** knowledge construction, not transmitted ready-made— de-emphasis on lectures
- **Critical Thinking:** analytical skills

Learning Redefined

- “[A]n argument for the **integrated** use of all of higher education’s resources in the education and preparation of the **whole student**. It is also an introduction to new ways of understanding and supporting learning and development as intertwined, inseparable elements of the student experience. It advocates for **transformative education** – a holistic process of learning that places the **student at the center** of the learning experience.”

(Keeling, editor, 2004, emphases added; The National Association of Student Personnel Administrators The American College Personnel Association)

Higher Order Competencies

- Expand the core values of liberal education: “expanding horizons, building understanding of the wider world, honing analytical and communication skills, and fostering responsibilities beyond self.”
(AAC&U, 2007)
- Higher order competencies for an ever-more-interconnected world : integrative learning, intercultural knowledge and global citizenship.
(Carnegie Foundation)
- Transformative education based on bridging learning and identity development: Self-authorship
- Connecting academic, interpersonal, and extracurricular involvements

Learning & Identity

- Learning becomes meaningful when it starts with students' own knowledge and engages them in reflecting on their discourses or frames of reference

(Baxter Magolda, 1999; Kegan, 1994)

- Must be “included in a much larger context that requires consideration of what students know, who they are, what their values and behavior patterns are, and how they see themselves contributing to and participating in the world in which they live.”

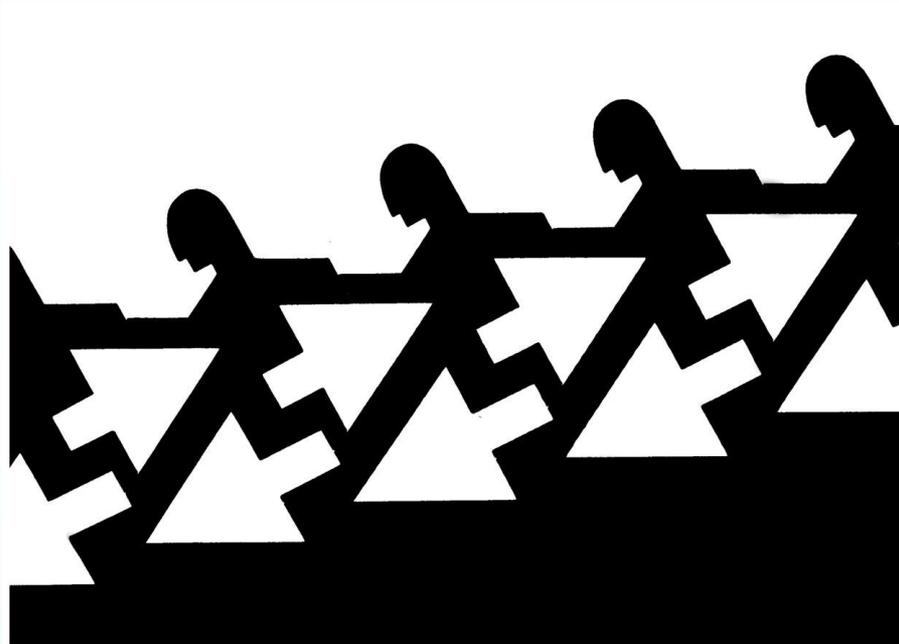
(Keeling, 2004)

Instructional Innovations in Higher Ed

- **High Impact Practices** : First-year seminars and experience, Learning communities, Writing-intensive courses, Undergraduate research, Community-based learning, Internships and capstone courses and projects. (AAC&U, 2008)
- Fluid boundaries: informal learning and the participatory culture of the internet.
- **Not** part of the formal curriculum
- Post-course era: bounded, self-contained course no longer the primary place where most significant learning takes place
- Policy calls to transform and reconfigure the organization of higher education institutions (Bass, R., 2010)

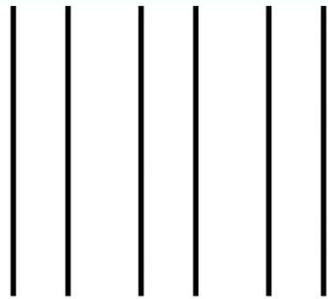
Perception

- Perception is not merely projecting the world onto our brains. Rather, sensations are disassembled into information bits that the brain then reassembles into its own functional model of the external world. Our brains construct our perceptions.
- Selective- change and inattentional blindness
- Organized- Gestalt principles; illusions
- Interpreted- Schemas

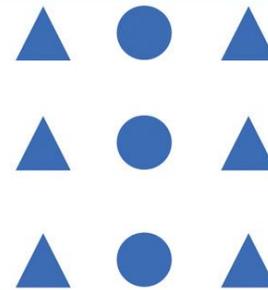


Grouping

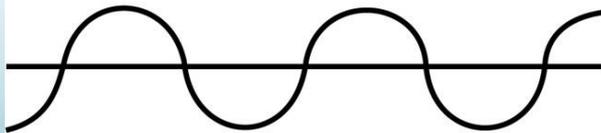
After distinguishing the figure from the ground, our perception needs to organize the figure into a meaningful form using grouping rules.



Proximity



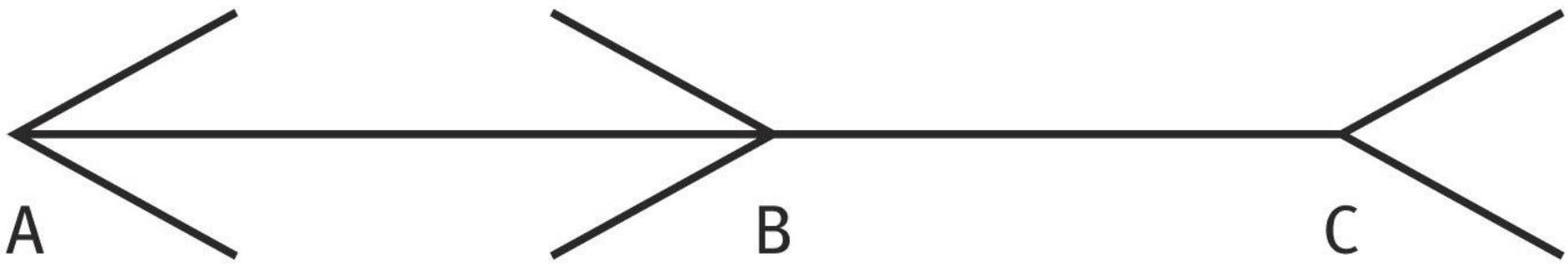
Similarity



Continuity



Connectedness



Conceptualizing Perception

- Perception is not a copy of reality
- Perception is not merely registering external objects
- Not a passive process
- Perception is a **constructive** process

Active Learning in the Classroom

- Concepts are **not** presented ready-made
- Students arrive at concepts by making inferences and drawing conclusions from the data provided or created by themselves (e.g., in perceptual or memory exercises that replicate research)
- Generalization and Abstraction
- Conceptual Skills:
- Inductive Reasoning:

Draw general conclusion about perception from specific cases of percepts (examples); identifying common, invariant, stable features, attributes, or properties among objects or phenomena thus grouping or classifying them together.

- Deductive Reasoning:

Apply a general principle to specific cases (particular manifestation, instantiation of the class or phenomenon)

Sensation vs. Perception

- **Activity 1:** Read Madeleine J's case presented by O. Sacks and infer the difference between sensation and perception from her impaired and normal functions.
- **Spasm:** involuntary muscular contraction, consisting of a continued muscular contraction (**tonic spasm**)

Sacks' Case

- Ms. J's hands were mildly spastic and athetotic but her sensory capacities – as I now rapidly determined— were completely intact: she immediately and correctly identified light touch, pain, temperature, passive movement of the fingers. There was no impairment of elementary sensation as such, but, in dramatic contrast, there was the profoundest impairment of perception. She could not recognize or identify anything whatever -- I placed all sorts of objects in her hands, including one of my own hands. She could not identify—and she did not explore; there were no active 'interrogatory' movement of her hands – they were, indeed, as inactive, as inert, as useless, as 'lumps of dough'.

1. According to Sacks, her sensory capacities are intact. List them.

2. In contrast, she had the profoundest impairment of perception.

How was that expressed?

What was the evidence for that?

3. Based on this case, write a sentence explaining the difference between sensation and perception.

Inattentional Blindness

Inattentional blindness refers to the inability to see an object or a person in our midst. Simmons & Chabris (1999) showed that half of the observers failed to see the gorilla-suited assistant in a ball passing game.



Daniel Simons, University of Illinois

Change Blindness

Change blindness is a form of inattentional blindness in which two-thirds of individuals giving directions failed to notice a change in the individual asking for directions.



© 1998 Psychonomic Society Inc. Image provided courtesy of Daniel J. Simmons.

Apparent Movement- Phi Phenomenon

- It can't be explained in terms of the summation of individual elements.
- Stationary individual circles flashing on and off
- Whole is greater than the sum of its parts

Conclusions about human perception

- Human perception is limited—we can only perceive a small fraction of the surrounding environment.
- Perception is not reliable.
- Perception is selective.
- **It's all in the head.**
- We perceive what is relevant and ignore what is not.
- There are significant individual differences in perception (e.g., many missed the gorilla)
- Perception tends to focus on one's activity at the moment (e.g., people miss the gorilla b/c they're focused on counting the passes).
- Not all that we perceive actually corresponds to external objects.
- The human mind contributes to what we perceive; perception takes place **at least partly in the mind.**

Questions and Problems

- How does focus arise and is maintained?
- How does the mind “decide” on what is relevant to focus?
- How does the mind alter, change, or add to what is perceived?

Theoretical Problems:

- Do we or can we perceive the world as it is? Or is perception completely subjective (e.g., each individual perceives objects/events in their own unique ways)? Is a shared perceived reality possible?
- Relationship between perception and motivation (i.e., interests).
- Do personality differences influence perception?
- Are there cultural differences in perception?
- How does development affect perception?

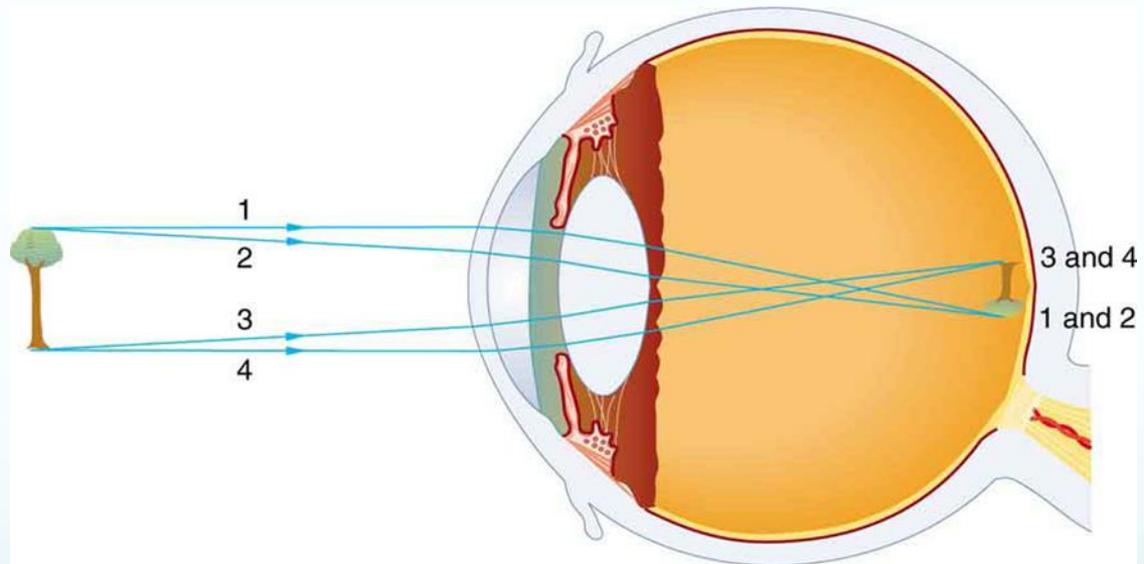
Knowledge is Debated

- Many students relate to knowledge as something finite, already figured out by the experts --- and thus ready to be transmitted to them in neutral, unproblematic ways (as if their minds were containers to store all that knowledge),
- Exploring how experts/scientists engage in serious debates about mental phenomena (e.g., perception)
- Knowledge is often contested, from different positions
- Just as there are different types of psychological treatment based on different theoretical perspectives; and as a client one can choose (if one knows about it) which form would be preferable.

Critical Thinking in Psychology

- Critical thinking has often been mistaken for rigorous thinking– scientific analytic thinking
- Expansion to include a critical analysis of all aspects of the discipline.
- Requires knowledge of the **assumptions and underlying worldviews** of a particular discipline
(Slice, Yanchar, & Reber, 2005)
- Psychology NOT a unified field
- Competing theoretical perspectives

The Retinal Image



The Vision Problem

- If the 'image in my eye' is inverted, why does one see the world 'right-side up'?
- Why does one see the world in 3-D, even though the retina is itself flat and 2-D?
- “For centuries, it has been assumed that in vision the problem is to explain how the difference between the retinal image and its visual result (percept) can be overcome” (Reed, 1988, parenthesis added).

- “Traditional perceptual theory has long maintained that a profound **gulf** exists **between the perceiver and the world** to be known.” (Costall, 2002)
- **Stimulation available** to the perceiver seems to be profoundly **incomplete and ambiguous**.
- “It is generally assumed that the **information encoded in sense data is highly impoverished** and, in itself, quite **insufficient** to specify the objects and events that subjects claim to perceive in their environment”
- We can't trust our senses.
- We see much more than is given to us.
- What we experience is an internal picture confabulated by the brain, not the world itself
- **The world is a grand illusion** (cf. Noë, 2009).

Student Writing Samples

- “Perception is a constructive process because the mind creates.”
- “Perception is not a copy of reality. In the Muller-Lyer illusion we see the lines in different lengths but in reality the lines are the same.”
- “In the Muller-Lyer illusion, we perceive the lines to be in different lengths when in reality they happened to be the same length. We can’t always count on our perception.”
- “Perception and reality clash. We see a ball moving. The perception is a yellow ball moving around. The reality is stationary individual circles flashing on and off.”
- “Visual perception: 3D right side up; Visual data in retina: 2D upside down.”

Critique

- J.J. Gibson, E. Gibson, Tim Ingold
- Overemphasis on cognition
- “Perceptual activity consists in the operations of the mind upon the deliverances of the senses (Gibson, 1976; quoted in Ingold, 1992).
- The only activity in perception is mental activity
- Passive vs. Active Touch

Act of touching

- Observer tends to do the following:
 - Trace movements with one or several fingertips, opposition of the thumb and other fingers,
 - Rubbing, grasping,
 - Name the object or compare to any familiar one
 - Trying to obtain mechanical events at the skin at various places in various combinations
 - Observer appears to be searching for stimulus information.

Comparison Active vs. Passive touch

Conditions of the experiment:

- The six forms were presented five times each (but the subject was told not to expect equal frequencies) and under two conditions, making a total of **60 trials**.
- The order was random. No preliminary practice or knowledge of results was given. **Twenty subjects** were tested.

Results of the experiment:

- A chance level of judgments would be 1/6 or 16.7%.
- For **passive touch** the mean frequency of correct matches was **49%**. When subsequently, with 20 different subjects, a mechanical lever system was used to apply the stimulation the mean frequency of correct matches fell to **29%**.)
- For **active touch** the mean frequency was **95%**.

Conclusions from the Experiment

- Tactual form perception does not depend on the pattern of local signs on the skin.
- With active touch **no forms existed on the skin**, but only a changing pattern of pressures.
- Why does the perception correspond to the form of the object instead of to the form of the stimulus?
- The paradox is even more striking, for tactual perception corresponds well to the form of the object when the stimulus is almost formless.
- A clear unchanging perception arises when the flow of sense impressions changes most.
- It might be that the skin does not have as its primary function the registering of form as this has usually been conceived.

Active Touch

- To apply a stimulus to an observer is not the same as for an observer to obtain a stimulus.
- Act of touching or feeling is a search for stimulation or an effort to obtain the kind of stimulation which yields a perception of what is being touched.
- The purpose of the exploratory movements of the hand is to isolate and enhance the component of stimulation which specifies the shape and other characteristics of the object being touched.

More Data for Vision

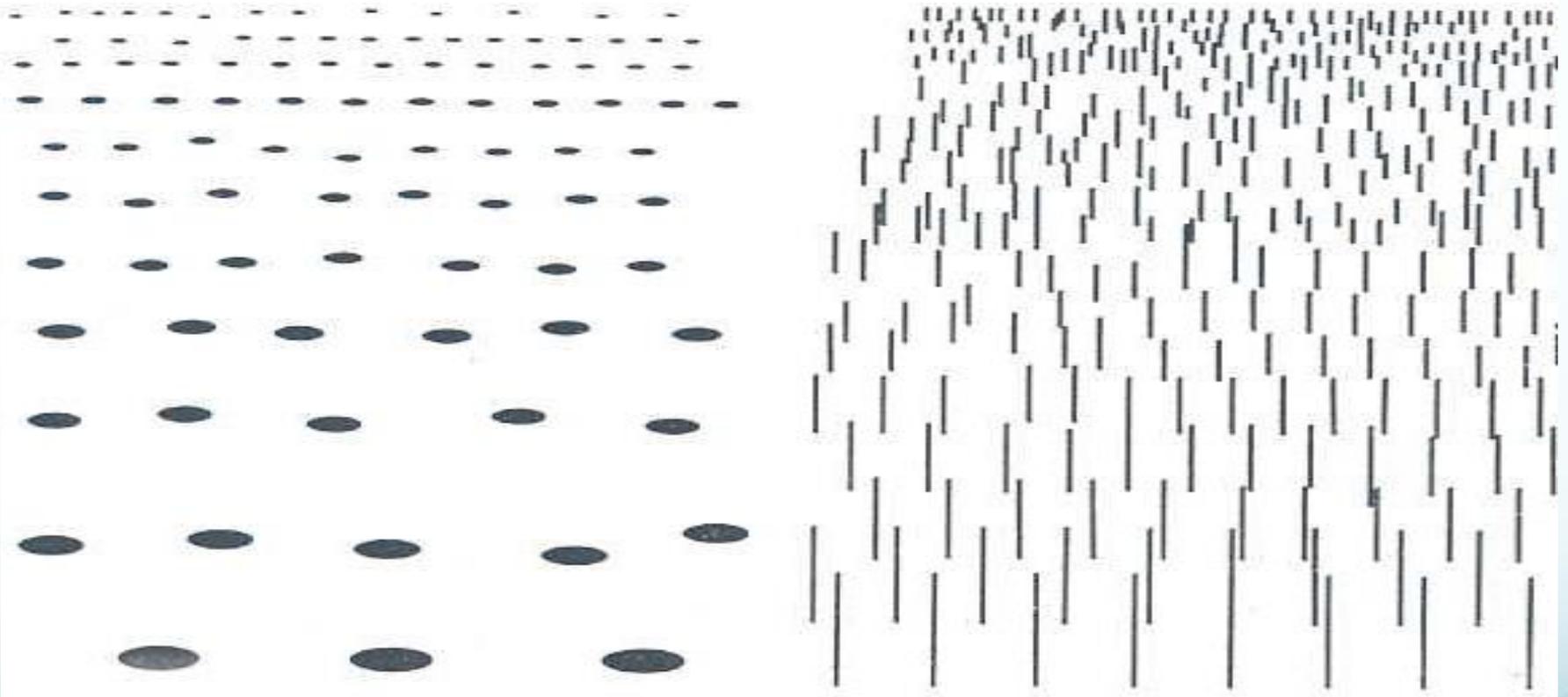
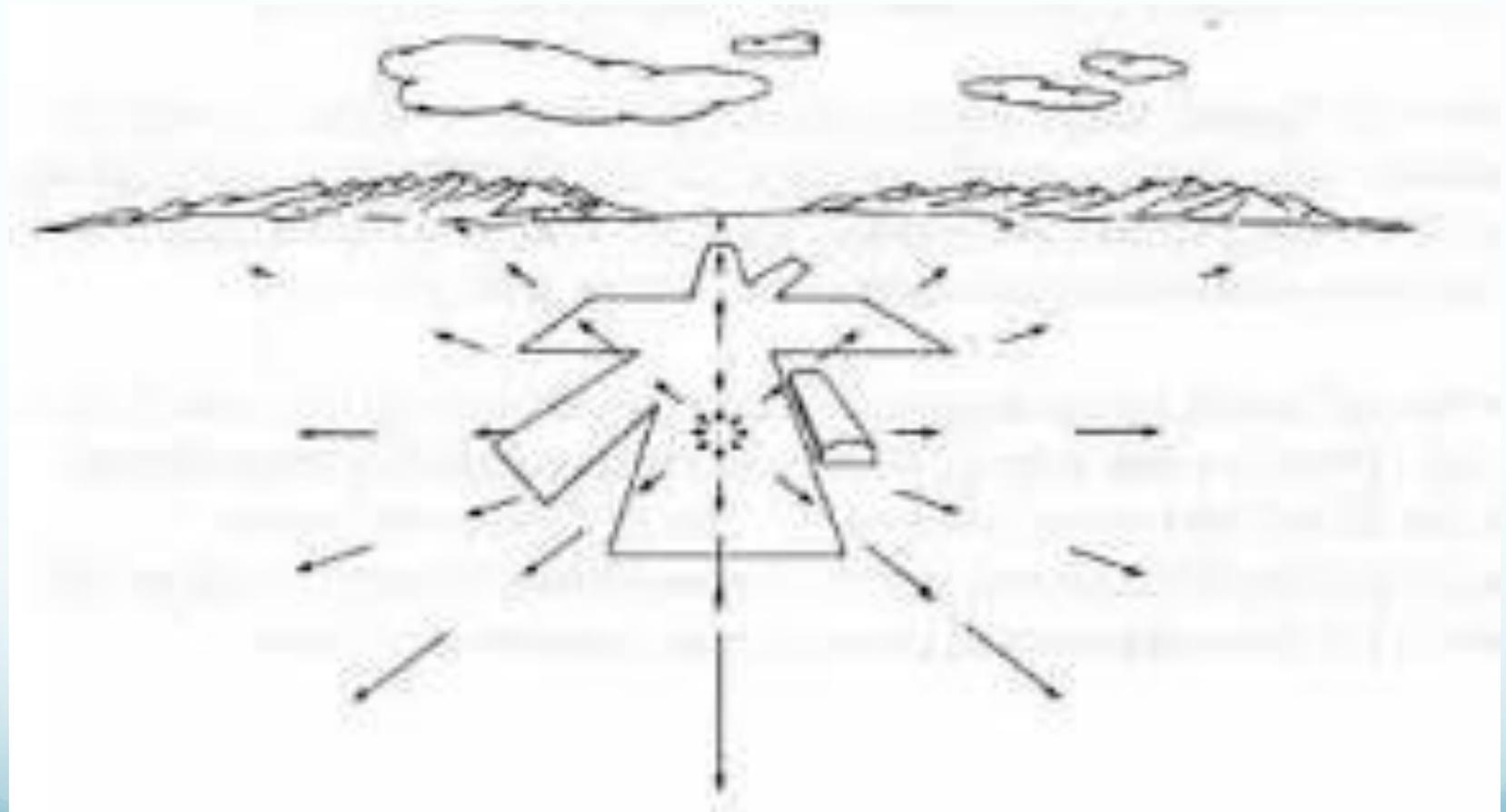


FIGURE 2.8: Examples of texture gradient. (From Gibson, 1950.)

- The retinal gradient of texture changes as the observer moves.
- The **regularity of this change**, not just the particular stimulus elements, provides visual information.
- When an observer moves forward, the sight line at the horizon is unchanged,
- Whereas the stimulation coming from surfaces close to the self keeps changing as one moves.
- The direction of all retinal motion is radially outward from the point toward which one is moving: **center of expansion**.



Data for Vision

- “[W]hy should we suppose that data for vision is the content of the retinal image?”
- The perceiver is always situated in the environment, free to move around and explore,
- Data for vision are not the content of a static snapshot-like retinal image.
- At the very least, the animal or brain has access to the ‘**dynamic flow**’ of continuously varying retinal information.
- Optic flow contains information that is not available in single retinal images

Snapshot Conception

“When we try to understand the nature of sensory perception, we tend to think in terms of vision, and when we think of vision, we tend to suppose that the eye is like a camera and that vision is quasi-photographic process. To see, we suppose, is to undergo snapshot-like experiences of the scene before us. (Noë, 2009)

Mach's Visual Field (1886)



Action in perception

- Traditional approach: **vision happens in us** (to us in our brains)
- Perception is an **embodied** activity
- Alva Noë & Kevin O'Regan: **Seeing is a bodily activity** (moving eyes, head and body): how things look depends on what you do
- Movement of your eyes or your head or your body actively produce changes in sensory stimulation to your eyes.
- “The Eyes have feet”: the eyes are under muscular control, are part of a moving head, which, in turn, is set on top of a body that gets around in the world.
- **Seeing is an activity** - something we do – activity of exploring the world making use of our practical familiarity with the ways in which our own movement drives and modulates our sensory encounter with the world.

The Challenge of Psychology courses

- Content-rich
- Tradition of reliance on textbooks --which cover too much material without the adequate conceptual depth.
- Initially I felt compelled to structure my courses around the textbook
- Gradually began collecting materials that offered critical analysis of different theoretical perspectives
- Multiplicity of voices.

Sensation/Perception (Meyers, 2015)

Sensing the World: Some Basic Principles 230
Thresholds 231
Sensory Adaptation 234
Vision 236
The Stimulus Input: Light Energy 236
The Eye 237
Visual Information Processing 240
Color Vision 243
Hearing 245
The Stimulus Input: Sound Waves 245
The Ear 246
Hearing Loss and Deaf Culture 250
CLOSE-UP: Living in a Silent World 251
Other Important Senses 252
Touch 252
Pain 255

Taste 258
Smell 260
Perceptual Organization 263
Form Perception 264
Depth Perception 266
Motion Perception 269
Perceptual Constancy 269
Perceptual Interpretation 272
Sensory Deprivation and Restored Vision 273
Perceptual Adaptation 274
Perceptual Set 275
Perception and the Human Factor 279
Is There Extrasensory Perception? 282
Claims of ESP 282
Premonitions or Pretensions? 282
Putting ESP to Experimental Test 283

General Psychology Curriculum at LaGCC

Required Topics:

Research methods
Biological basis of behavior
Learning
Personality
Human development: Piaget
Psychological disorders
Social psychology

Optional topics:

Memory
Sensation
Perception
Therapy
Intelligence
Motivation
Or any topic of your choice, as long as you cover ten topics.

Connecting Topics

- Integration
- Different theoretical perspectives are taught in a general **historical** sequence (with some overlaps): psychoanalysis, behaviorism, cognitive psychology, and sociocultural psychology.
- **where knowledge comes** from,
- how themes emerged in the history of the field in relation to the broader context (e.g., cognitive revolution and computers)

Theoretical Framework

Vygotskian Cultural-Historical
Theory/
Transformative Activist Stance

Vygotskian Cultural-Historical Theory

- The source and foundation of human development are the social interactions mediated by cultural tools.
- Human development centrally involves learning:
- Mastering cultural tools through joint activities with More Knowledgeable Other
- Theoretical concepts as efficient tools

Systemic-theoretical instruction

- Gal'perin, Davydov, Arievidch
- “Types of Generalization in Instruction”-- Davydov
- Transform learning generalized concepts ,often resisted by many students as arbitrary and meaningless, into meaningful activity.
- Origins and development of theoretical concepts through practice – **Historicity**
- Revealing activities ‘hidden’ behind them makes knowledge tangible and practical
- Disclose often-hidden interconnections

Psychoanalysis

- Evolution of Freud's theory and Practice
- Builds from Charcot's and works on hysteria
- Posthypnotic suggestion
- Discovery on unconscious

Freud: Beyond Hypnosis

Case: Young woman very distressed following birth 2nd child (postpartum depression).

- Unable to feed her baby, as happened with 1st one:
- Poor flow of milk, mother lost appetite, agitated, sleepless. Her distress was compounded by her incapacity to care for her baby.
- The child had been transferred to a wet nurse one night and the mother's symptoms disappeared.

Freud's First Approach

- She was upset and didn't believe Freud would be able to help her.
- Freud promptly hypnotized her with the following suggestion:

“Have no fear! You will make an excellent nurse and the baby will thrive. Your stomach is perfectly quiet, and your appetite is Excellent, and you are looking forward to your next meal.

Patient fell asleep, took nourishment herself, and fed the baby Irreproachably.

- Next day symptoms returned.

Freud's 2nd approach

Freud came and hypnotized her again.

He recorded this following intervention:

- “I told the patient that five minutes after my departure she would break out against her family with some acrimony: what happened to her dinner? Did they mean to let her starve? How could she feed the baby if she had nothing to eat herself?”
- Third evening, Freud was sent away. Patient was doing very well, excellent appetite and plenty of milk for the baby. He was told that after he'd left the night before, the patient violently clamored for food and had very atypically remonstrated with her mother.

Change in treatment

- First hypnosis: reassurance
- The authority and power of the hypnotist would magically heal the patient causing the symptoms to vanish. It only reinforced the patient's resistance and regressive tendencies.
- Second hypnosis: letting out anger
- Freud gave permission for the patient to experience and express her anger. He accepted her neediness and regression. He recognized that a depressed patient was unconsciously angry.
- This approach fostered growth and understanding.

Freud's Insight

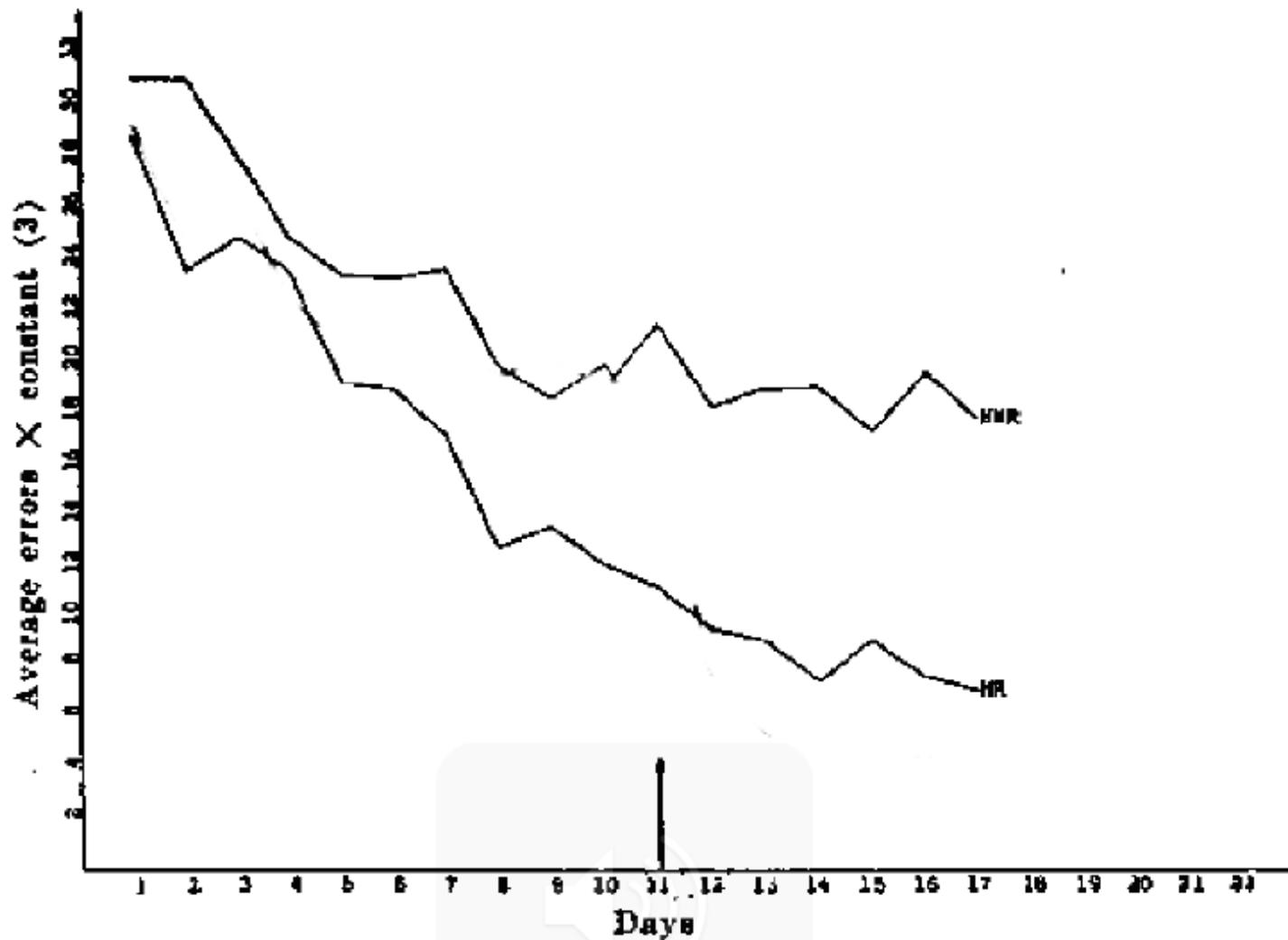
- Although woman wanted to carry out her conscious intentions to nurture her baby, she was unaware of her counter-will.
- **Unconscious intrapsychic conflict.**
- Patient was conflicted about feeding her baby and feeding herself. But conflict was outside her conscious awareness.
- Patient enviously identify with her baby. She herself was longing for care, to depend on others, and raged over her own unsatisfied infantile hunger.
- How could she feed the baby when the baby inside her so much insisted on being nurtured?

Behaviorism

- Human behavior is still commonly attributed to *indwelling agents*. A juvenile delinquent is said, for example, to be suffering from a disturbed personality.”
- “[T]he behavioral sciences still appeal to (...) *internal states*.” (Skinner, 1971)
- “[A]lmost everyone attributes human behavior to intentions, purposes, aims, and goals.”
- “A scientific analysis of behavior must, I believe, assume that a person’s behavior is controlled by his genetic and environmental history rather than by the person himself as an initiating, creative agent.” Skinner, 1974.
- People can be controlled by controlling their environmental history.

Cognitive Challenge to Behaviorism

- Edward Tolman's Experiment
- Discovery of latent learning.
- Present a diagram for an alley maze.
- Describe the experiment in which a hungry rat is put at the entrance of the maze and wanders about through the various true path segments and blind alleys until it finally comes to the food box and eats.
- This is repeated daily, one trial every 24 hours.



Error curves for HR, HNR, and HNR-R

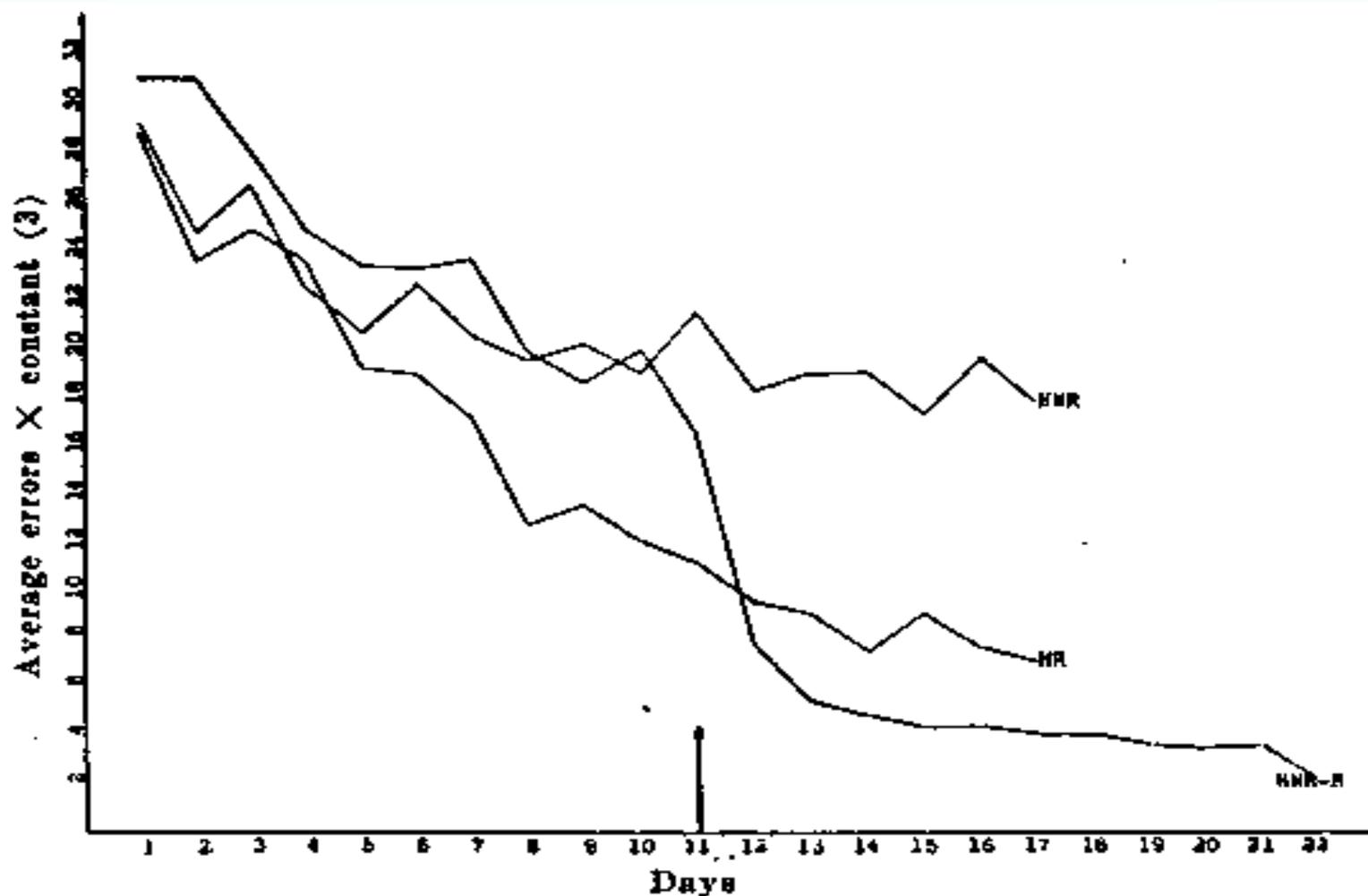
FIG. 6

(From E. C. Tolman and C. H. Honzik, Introduction and removal of reward, and maze performance in rats. *Univ. Calif. Publ. Psychol.*, 1930, 4, No. 19, p. 267.)

Question #1

Which curve(s) provide evidence that the rats learned to navigate the maze?

- (a) Curve 1 (group 1) provides evidence that those rats learned the maze.
- (b) Curve 2 (group 2) provides evidence that those rats learned the maze.
- (c) Both curves provide evidence that those rats learned the maze.
- (d) Neither curve 1 nor curve 2 provides evidence that those rats learned the maze.



Error curves for HR, HNR, and HNR-R

FIG. 6

(From E. C. Tolman and C. H. Honzik, Introduction and removal of reward, and maze performance in rats. *Univ. Calif. Publ. Psychol.*, 1930, 4, No. 19, p. 267.)

Question #2

- Examine the curve representing group 3 (highlighted in a graph where the 2 curves previously shown are also represented) and explain why that curve does or does not indicate that those rats learned the maze prior to administration of the reward.

Question #3

- (a) Based on the data provided by the third group of rats (curve 3) what can you say about whether or not the other groups of rats (groups 1 and 2) were learning the maze? Do the data represented in curve 3 change your idea about whether or not those other groups of rats were learning?
- (b) Can you think of an experimental manipulation that would help answer this question?
- (c) Taken together, what do the findings depicted in these 3 curves, representing 3 different conditions regarding the presence of rewards, indicate about the role of rewards in learning?

Transformative Activist Stance

(Stetsenko, 2008)

- Builds on Vygotsky, Freire, and Bakhtin
- Learning becomes personally transformative by providing tools for identity development and opening up new horizons for personal and social growth
- Compass about their current location in the ongoing flow of transformative collaborative practices, in which they are provided the tools to critically examine their history, present, and where they are going, and ought to be going, next.
- “**taking an activist stance** towards creating their futures in a society that itself needs to be created, rather than merely reproduced or adapted to.”

Peer Activist Learning Community

- Discuss their learning, professional and life goals, engagement in sociocultural practices (Vianna, Hougaard, & Stesenko, 2014)
- **Critical-Theoretical Learning** (Vianna & Stetsenko, 2011)
 - (a) critically examining social practices and discourses (e.g. educational practices) leading to inequality, poverty, racism, sexism, and other forms of discrimination; including own knowledge and assumptions
 - (b) facilitating students' positioning (taking a stance) on these issues, including toward learning
 - (c) developing **activist agendas of contributing to social practices** that could bring about social transformation

Activist contributions to the curriculum

- Marx's concept of alienation, from sociology course
- Fromm's 'Marx's concept of Man'.
- Purpose in life, from psychology course.
 - Exploring meaning of race/ethnicity
 - Immigration
 - Epistemology
- Began to develop a growing **this knowledge can be applied in practice.**
- Understanding concepts in this theoretical way entailed knowing the utmost *practical ways* of solving problems involving them. Theory was seen not as a separate way of knowing that was disconnected from practice

Learning and Identity

- *“Previously, we viewed the classroom as a site for knowledge transmission. Now, that has been radically transformed as a site for making contributions, engaging and interrogating the status quo with teachers and peers.”*
- “I used to think that my abilities were pretty fixed and that my potential for learning was limited. In PALC I learned that I had internalized a deficit view of myself based on my educational experiences. This sometimes still haunts me, but now I know that my potential, that human potential is unlimited. But we need to learn and need the conditions and tools for that to happen.”

First Year Seminar

- Asked to write about their culture
- Range of positions
- Relation to nationality, race/ethnicity
- Hybrid, hyphenated

Teaching as Co-authoring: Further Steps

- Requires a break from the transmission model --and its corollary view of students as vessels to be filled with knowledge.
- Challenge view of knowledge as something finite, ready to be transmitted in neutral, unproblematic ways
- How to engage students as agents who need to be meaningfully involved in learning ?

- Engage students more agentively by starting instruction from their own knowledge and **stance** toward psychological knowledge.
- Challenging Assumptions
- Confusion, reconsidering previous knowledge
- Are children “sponges”? Do they simply learn through their senses?
- Competing views: passive vs. active child
- Agency

Connecting Psychological knowledge with Students' Funds of Knowledge

- Freedom vs. Determinism
- Are human beings free (and moral) agents , who should be held accountable for their actions?
- Or are our actions determined by social or internal forces (e.g., genes and biological drives) that we cannot control?

Discussion

(a) understanding how knowledge ‘comes to be’ as tools of practices; and (b) therefore simultaneously grasping how this knowledge can be applied in practice.

That is, viewing knowledge as a form of practice did not entail merely hands-on manipulation of objects. Instead, it brought about a focus **on practical relevance and origins of concepts as a way to reveal their most general, theoretical regularities**. Understanding concepts in this theoretical way, in turn, entailed knowing the utmost *practical ways* of solving problems involving them. Theory thus was seen not as a separate way of knowing that was disconnected from practice but as a form of practice that encapsulates the most efficient ways of acting.

In this type of teaching, knowledge has to be actively reconstructed by students in their own activity. The *active appropriation (or creative reconstruction) of cultural tools* was the linchpin of Galperin’s and Davydov’s approach, with this notion essentially bridging the gap between direct instruction entailing provision of cultural tools and independent discovery entailing learners’ active reconstruction of these tools. Thus, this approach potentially opens up ways for synthesizing the top-down (teacher-centred) and the bottom-up (child-centred) approaches by fostering active participation of children in the construction of knowledge through exploration and inquiry into established socio-cultural practices and relevant cultural tools.

- learning should be organized in ways where knowledge is revealed: (a) as stemming
- *out of social practice*
- – as its constituent tools; (b) *through social practice*
– where tools are rediscovered through students' active explorations and inquiry; and (c)
- *for social practice* – where knowledge is rendered meaningful in light of its relevance in activities significant
- to students, that is, where knowledge is turned into a tool of identity development.

Memory

- What kinds of events do we remember easily?
- Why do you think we remember them?



- Common assumption: **we remember what is important**

Graphing

- Instructions for graphing retention results:
- (1) After each repetition (trial) write down the number of syllables retained;
- (2) Calculate the percentage of syllables retained out of 20 total (100%);
- (3) Draw a graph in which the x axis represents each trial (repetition) and the y axis represents the percent of syllables retained.
- (4) Draw a dot indicating the percent of syllables retained for each trial (repetition).
- (5) Draw a line linking the dots from the first to the last trial.

In-Class Exercise

- Part 1 (2 minutes)

Write down one paragraph of your memories of September 11 2001

- Part 2 (5 minutes)

In pairs, read each other's memory descriptions.

What did you notice?

Interesting patterns?

Categorize the common elements found

Consistent Finding

- Impressive **consistency** to the **organization** of such memories:
- Place
- Ongoing activity
- Informant
- Aftermath
- One's own affect and that of others
- **Why** remember these elements?
- Do they meet the criterion that people remember what is important?
- There is no obvious utility in such memories.” (Brown & Kulik, 1977)

Elements of a whole scene;

“Now print” mechanism in the brain is triggered and stores the **whole event into a permanent record for later** (Brown and Kulik, 1977)

Neisser’s analysis of implications:

- (a) FB memories are accurate
- (b) The memory is created at the time of the event itself
- (c) Surprise and emotionality (consequentiality) lead to good memory

Evidence:

Flashbulb memories might be inaccurate,

High levels of arousal (surprise, emotionality) narrow the focus of attention; unlikely to promote detailed recall of circumstances.

Vividness might be promoted by continual retelling

Neisser's Theory:

Structure of FB Memories Resemble narrative conventions
In our culture we all know how to tell a story (who, what, when, where, and why)

“The FB recalls an occasion when two narratives that we ordinarily keep separate – the course of history and the course of our own life-were momentarily put into alignment.

We remember the details of a FB because they are the links between our own histories and History.

Misleading term: not momentary snapshots but enduring benchmarks.

Identifying Critical Skills

- Synthesizing information in patterns and categories.
- Challenging common sense (and theoretical) assumptions.
- Identifying and systematically assessing implications of assumptions and theories.
- Evaluating arguments based on available evidence.
- Conceptualizing empirical phenomena.
- Knowledge as construction of empirical reality.