

Notebook #1

Psych 1-2

Engl 1-2

Engl 15/16

Copco

COLLEGE

NCTE

BOOK

Sperry, R.W. White House Oberlin, Ohio

✓ James W. out 90

Woodworth
Warren
Pillbury

Bichtman

✓ Dashiell '30 Chap I
Smith + Gotbrie
Hunter
Kantor composed

File To 34-37
Factors for Tariff
Chap 22

Cartyle Characteristics

Signs of the Times Analogues with general economic depression etc.

✓ Sector Recession Turkey
by H-B

But + Present

Must prepare index for fluctuations

emotions in J. ← hit 3 spots in D + for 937

62-68 376-97-425
147-153 379 456-
199-227 + quizz on emotions

for chap. press. slope in Processing 13, 14, 15
special

PSYCHOLOGY

(Read Al's notes + Shuman's + Eisenhauer's)

Def → Behavior → Individual = our ^{work} ~~work~~

We don't know ^{how} sense organs

Learning = a psychological change - but ^{how} ~~how~~ ^{inspection} ~~inspection~~ ^{law to discover} ~~law to discover~~ ^{through} ~~through~~

We can explain ^{input} "output" in terms of ^{input} ~~input~~ ^{output} ~~output~~ ^{input} ~~input~~ ^{output} ~~output~~

James' 'brainpath' and the 'condition reflex'

are no longer accepted as true, have fallen

Spiders don't learn like human beings. ^{lower animals are} ~~lower animals are~~ ^{not rebuilt.} ~~not rebuilt.~~

'Mind' runs brain + brain runs body

controlled and directed animal

foresight ^{indep. activity of mind} ~~indep. activity of mind~~ ^{by the brain.} ~~by the brain.~~ ^{start to neural disturbance} ~~start to neural disturbance~~

choices ^{between} ~~between~~ of two channels of activity

the mythical mind idea

(Evidently we do talk about 'mind,' - but damned if he knows what it is.) ^{on up} ~~on up~~ ^{contributes} ~~contributes~~ ^{those little starts} ~~those little starts complements the body.~~

All hunk ^{physical, no choice} ~~physical, no choice~~ the theory falls down. Either we make the mind physiological or something outside the body not physical or material, but mental & ∴ can't ^{operates} ~~operates~~ produce energy

Analogy of timer in ^{motor} ~~motor~~ governor ^{engine} ~~engine~~ etc, with the mind and (body or brain). ^{ask} ~~ask~~ ^{where are 'starts'?} ~~where are 'starts'?~~

One says that the organism runs itself. (control: choice)

Intelligence is not built in as a separate part, but ^{is} ~~is~~ ^{intell. all over} ~~intell. all over~~

✓ parallelism when mind does something, the body also does both keeping time like two clocks - but unconnected & this involves a superfluous element.

Motivation = ^{continuous} mass of stimuli, usually stimuli are continuous. never use the word motivate a person = to bait him (a naming instead of explaining)



cold-blooded animals no example of motivation from ^{hate or?} cold.

a change in behavior of animal due to stimuli of sense organs
A - C → E.
External Stimulations of gravity, light, tactile, sound, smell, desolved

Internal changing muscle pressure,
Dashiell overstates motivation

Mind is only a description of a kind of behavior

Human being as a machine is extraordinarily ^{young} efficient

" is cyclic & being repaired from within
② 'interception' rebuilding & stimulation.

③ repeats former behavior = 'content' storage ④ organizing material

Early locomotion → example of problem
Creep, ^{early} hunch, roll, all 4s, ^{late} and development of ^{dependence on stimuli} crawl

A process of building up reactions (of reaching)

Locomotion → reaching → eye-hand-grasp
_{when he reaches}

The child doesn't want (except perhaps to want food)

One has to learn to want thru experience

Eye-hand reaction. ^(a native reaction) eye follows a light (contrast) = a reflex
① (fatigue from bright lights caused by tendency of eye muscles to strain toward that light)

② The muscles of arm respond to all kinds of stimuli, thrusting in front of him, until the hand affects the ^{accidentally} object stimulates of eyes, and from this he builds up a connection with hand & eye = a conditioned reflex

What is this example used for mainly?

- (3) grasping reflex - closing hand on object, clutching, & closing in
 (4) and putting to mouth.

The Posture reaction
 effort to hold up head. - a native reaction

Locomotion How combinations (habits etc) grow up

Grasping

Nat. react. eye fall: light → max. stimuli

" " gen. mov. of limbs

" " flexion of arms + hands

Conditioning eye centers on light

" hands move with eyes to object

" hands + flexion = grasping

Posture - nat. reaction head-holding up → min. stimuli

unlike eye, posture is at rest in least stimulation.

thus a tendency of posture toward minimum ^{fixation} movement.

development in forward direction

learning to move head in direction of object (with eyes)

Soon eyes, head, shoulder, giraffe + hands move to object.

A movement to elongate his reaching - possibilities

Reaches forward, falls, creeps - Murray!

↓ A child wants object when he gets used to responding to its stimuli.

✓ Want ○

An extreme stimulus produces tension, you learn to want that which will produce relaxation, only after you have experienced that which "○"

Want ^{process}
 Extreme stim \downarrow contraction $\left\{ \begin{array}{l} \text{learned} \\ \text{react.} \\ \text{"Habit"} \end{array} \right. \rightarrow$ relaxin

Posture - Creeping

✓ Grasping sitting - falls forward - support on hands - accidentally puts weight on 2 hands and reflex works to make other hand go forward reflexes develop into learned habits all along line.

Left handed babies should be taught to be right-handed

✓ Processes developed on basis of underlying tension

★

The conditioned reflex. Bechterew + Pavlov

- Washill is out of date on this -

D's ^{old} idea $\left\{ \begin{array}{l} S \rightarrow R \text{ an electric stimulus replaced gradually} \\ \text{bell 'S' } \rightarrow \text{ by a bell ring at same time } \frac{S'R'}{S'R} \end{array} \right. \text{ These}$
 ✓ connections etc. took place in the brain. (Pavlov)

[Reflex means any reaction in Europe but only simple in Am.]

? They found the ^{very simple} knee reflex couldn't be conditioned ^{both produce} ^(except relaxation)
 studied very simple reactions found P' were not the same.

✓ ^{new} idea $\left\{ \begin{array}{l} \text{The conditioned reaction is an anticipatory set. The} \\ \text{preliminary set will lead into same movement - sometimes} \\ \text{like old reaction sometimes a new. The stimuli produce} \\ \text{posture sets which finally result in } \frac{\text{tension}}{\text{relaxation}}. \end{array} \right.$

Tension $\rightarrow \rightarrow \rightarrow$ Relaxation

★

Muscle tone = posture reflex

and organs \rightarrow muscle contract ^{pressure} ^{stim.}
 " \rightarrow " cyclic

Chemical reaction in muscle not glycogen - lactic acid

creatin + phos \rightarrow creatinum
 phos. acid

Contraction reflex & development of wants, then maximum satisfaction of want consists of relaxation

Child reaches & grasps and this sets up tension

There is an automatic ^{native} correcting ^{reflex} action underlying the eye-light, eye-hand and posture reaction.

Optimal condition in posture is one of least stimulation

Locomotion is an extension, elaboration of the reaching grasping reaction.

Reaching-sitting-tension leads to random action in which accident results in the development of further ^{native} learned reflex and learned reactions (e.g., f.b) which result in relaxation - grasping, sucking, striking etc.

→ Difficulty of changing habits

Problem of learning to want

How posture reacts and factors involved.

How does child know where & how to move his arm, head, body, etc toward the object? - It is a learned reaction, built up by long practice. The stimuli are visual and internal from the muscle tensions. Muscle tension: pressures upon nerve endings are

A posture ^{set} is a constant source of stimuli, thru the tension of muscles.

Stimuli of two kinds: outside pattern and inside pattern.

✓ How do outside & inside stimuli coordinate?

The impossibility of center adjustments.

It must be explained in S → R series.

S = P
S = R
S = R

A serial-self-regulation inside → outside

✓ Posture must enter into every movement.
" a result of inside stimuli a good deal (a continuous adjustment.)
"Delayed reaction" a method of finding how long an animal can hold a set posture. → 'immediate memory'

Continued steady action almost impossible for hold.
Inhibitory phase of posture:

Posture sets → interruptions — set not broken unless by
Attention → a way of ^{revising} posture, focusing of organs

Do not discuss in terms of 'mind'

A unit of behavior

Locomotion

Posture

Conditioned reflex ^{but is simple} is not a unit or special reaction ^{S+R}

We have touched S+R but now we go into the intermediary process, nerve system.

Be careful in using term 'center'.

Senses are extremely elaborate reactions and are ex. ab. involved in behavior. ^{muscle coordination} sight, touch

Analysis of movement — tonic & phasic

Dashfield not particularly adequate ^{both contracting}

1) Tense I Antagonistic idea { + muscles, balance, unbalance

2) Ballistic II Sudden tension followed by relaxation ^{most movements}

Can't stop ball at movement when it once started. ^{aimed + thrown}

I

II

We do not know much about synapses. Dashiell's theory: purely conjectural.

follow thru


See Watson's neurology

— Center + 'Central' vs. Dashiell.

All body is center of ^{neurons} axon impulse.

One neuron does stimulate another neuron.

Nothing is started, changed, shifted at the center in spite of Dashiell's theory.

Loops near surface of brain of vision neurons  is not a center but merely a section of the path. ^{line of connections} _{grouped together}

We don't use center any more but tract in speaking.

Control is not in the cells — automatic and operator telephone system — more like the former.

No connections initiated in 'centers', but originates in the periphery, the muscle or sense organ. Is the control

✓ comes from the receptors and effector (This theory is contrary to popular notions up to very latest experiments)

cyclic + self-regulating = good stuff for B.B.

✓ Control, a matter of whole organism.

✓ We talk of 'higher' + 'lower' reactions. The lower involving the spinal cord & reflex actions; the higher, brain etc. — a combination of simpler actions.

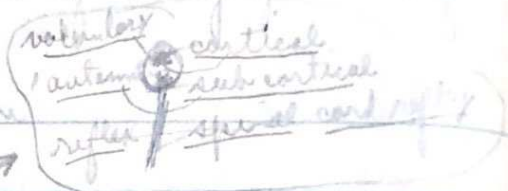
This combination following during a posture set.

✓ 'Higher' control involves a posture, a tension, which focuses, combines many phasic reactions.

Relation of the brain to posture, want, tension etc.

Much of posture, thru stimuli at head end, the need of a more complex center is satisfied by growth of brain.

Cerebellum = 'small brain'



All limbs probably

gross adjustments very

voluntary action = a specialized, particularized and in that way involves choice etc.

~~Automatic~~ ^{nonic} = reactions such as blinking, yawning, pupillary reflex, facial expression etc.

reflex = knee reflex, the simplest possible reaction

Antero - higher, intermediate, & lower

[Watson's is the best text for neurology] from point of view of neurologist
Also Stiles & Herick (except cerebrum)



vol. - cerebrum 'cortical'

automatic - sub-cortical

reflex - spinal cord

as seen in

Early locomotion (for example)

Voluntary action in child's ^{posture} focusing of attention on a particular object, and in that sense involves choice

Automatic action consists of repeated, alternative, serial, + cyclic movements of {creeping, f-t, r-l, crawling, f-t, r-l, reaching, f-t, r-l, head holding}

Reflex action eye-light coordin, f-t, r-l, head holding

involves mental posture, but has physical

Reflex are considered as single, simple, action

Automatic are self-containing, serial, S-S

Voluntary are a combination of lower reactions controlled

What has animal learned to do, & what is there in environment to set him off (results in choice)

or directed or focused by a posture set.

brain does not start or initiate anything
probably doubtful that repeated conduction lowers
resistance of the synapses. - know little about it -
(- mind has become a name for certain behavior of
whole organism.)

Q? of where ^{one way} neuron connected to ^{two way} nerve fibers?

it says most of cell bodies are near spine, also that
neurons are laid end to end - why shouldn't a
great many cell bodies be found all over. - the
neurons must be long at times (5ft.)

Q? posture can't be wholly separated from reflex
actions, because an alert posture or tension excites
a greater knee-jerk. - two different kinds of
posture - one directs, focuses action, the other ^{increases} excites it.

According to Dashiell, a posture must affect
the resistances at a synapse so as to make the
impulse turn one way or another. (skip on back)

Three types of behavior -

I Organism is main apparatus II Brain & CNS. ^{most} impor.
Polarity is not a property of a single cell, But
depends upon the junction. impulse can be sent thru
cell body in either direction.



no. of stimuli & response, complexities, + glances
is the difference between higher and lower ^{action} centers.

Brain point

Want to avoid idea of cortex controlling subcortex and that in turn controlling the spinal cord. Want get away from idea of some 'operator' in the brain.

A center is not a collection of synapses (and, say, ...). The synapses between muscle & spine are very important.

Kinds of Movement

stiff

I Tense both groups of muscles acting all time vs each other.

1. Fixation posture = all muscles contracted

2. Tense movement = one muscle contracted ^{moving fixation} the other ^{muscle}

loose

II Ballistic type = contraction followed by relaxation.

Quizzes are always on text assignments + models

	<u>Vert. fibers</u>	<u>Depth side</u>	<u>granular</u>
<u>Fore</u>	optic thal- amus	corpus callosum	cerebrum
<u>Mid</u>	peduncles cereb.	mid commissure	corpora quadrigemina
<u>Hind</u>	medulla	pons	cerebellum
<u>Stem</u>	continuation of spinal cord	fibers	cell bodies gray matter

The polarity of cells is determined at synapses.

There are no 'centers' - only tracts. The activity of nervous system is not centered in spine & brain.

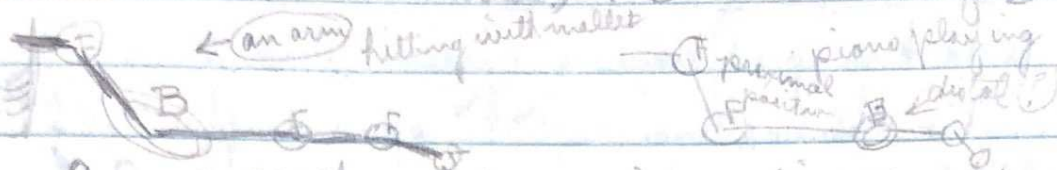
The only 2 forms of rapid change is due to 'outside'

stimuli and ② to muscular contractions etc. inside.

Continuation of Organization of movements.

I Tense (Tension + motion)

II Ballistic (contraction + relax) + ④ combination of ① + ② + ③ + ④



Can get all three forms in combination in one movement.

Beating time to music ball stroke + back stroke

be able to classify movements athletic

Commissures are connecting fibers. Corpus callosum, middle commissures, & pons.

↓ higher { external stimulus patterns
over all response
serial cycles
centres

lower { simple patterns
limit stimulus pattern

brain people ↓

Central nervous system is not at all a controlling apparatus, merely a connecting device.

Connection of ^{Time Ballistic} Movements to external connections

I Tense

Posture	and slow movement	pressure
outside stimuli		eye
inside "		phys. or muscle

II Ballistic



outside stimuli	eye
inside "	start, stop





both start + stop of movement set at stimuli for next movement

time between flexor & extensor ought to be the same, no matter how long the movement.
 The speed of the movement is regulated, not the time.
 Time equals the time for afferents stimulate extensor

An example of a skilled movement - writing

With high speed comes a curvilinear writing

Take besting time  speed it up  fixation instead of movement

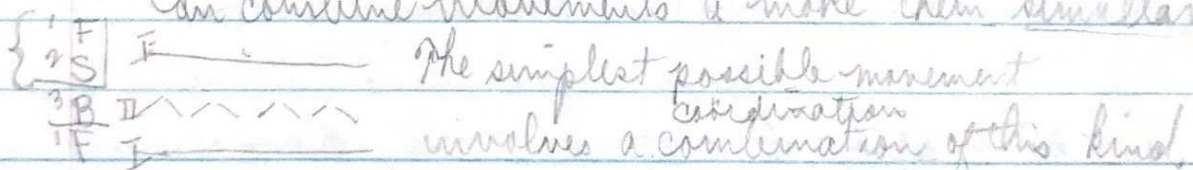
The best stroke is the same as writing stroke   
 A B C D E F G H I J K L M N O P Q R S T U V
 a b c d e f g h i j k l m n o p q r s t u v w x y z 

It has more tense movements as the writing slows down.
 The dividing line between ballistic and tense is very definite.

In a slow movement, the antagonistic muscles are always contracted, at least enough to keep the motion well directed, controlled, straight (swimming)

- Find out what 'distal' means

- Can combine movements to make them simultaneous



Posture factor & supporting factor, must always support the tense & ballistic movements.

(Push off in walking is ballistic, heel toe & placing effort are tense)

- All these ballistic strokes must be prepared in advance.

The number of muscle fibers must be determined before hand.

Throwing - the movement is a testing out of the aim.

Tense movements can be adjusted from stimuli.

✓ Base There is no knowing just how the number of muscular fibers is determined. It depends upon the external stimulus patterns & internal which come from posture factors.

There is a certain kind of memory involved so that you can adjust succeeding attempts, i.e. the set up established can be changed by preceding movement.

A sudden inside or outside stimulus sets off the ballistic movement, serial, one stimulates other.

Adjustment for different keyboards, piano's etc. takes care of itself, one is not conscious of it.

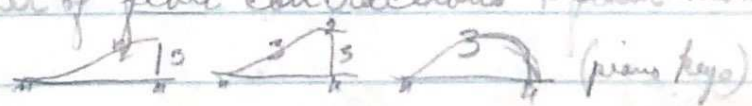
✓ Such adjustment is a part of learning - adaptation to environment etc. Another one of characteristics of learning.

— We are gradually working up the "learning process".

Relation of movements to learning.

✓ Learning involves a posture set up to direct a series of movement. A series of slow supporting movements to organize & support the other movements.

Almost all we learn involves a series of movements, ballistic + tense, supported by tense. Outside } stimulation
Inside }

Doctrine of slow learning slow at first - speed up (false)
Speeding up involves a change from tense to ballistic.
Also a greater number of fiber contractions reduction of no. of movements
especially in series. 


Both involve same outside pattern but are different movements

The problem is still open but I believe
but more in the fast practise.

(It does no good to practise slowly!)

Ballistic Serial Time
Walking, running, skating, dancing, rowing, riding, swimming, hopping
The same repeated movement from same posture, all done as
alternate movements

Throwing, kicking (photograph to show muscle relaxed) Taps, strokes
golf, tennis etc. Have posture set up and are one ballistic movement
Most of above are simple enough so that once learned
they usually stick, but the usage is different, more
complex. A simple movement which is repeated is remembered
longer.

↓ Washell's  are increasing load of neural disturbance
but we know now that nervous system ^{head} doesn't work that
way. There is no tension or increased potential in nervous
system. The tension is only at muscles. Like telephone
system, increased rings will not get call there.

↓ There is no particular path that works directly from
^{sensory organ} muscle to muscle all established over which the impulse
will pass in predetermined manner. The habit is not
in any particular muscle, central nervous system, or
sensory organ - this is too simple (you can write name
with foot as well as with hand) It must be determined
by changes in the muscle conditions

Whole organism involved in many simple habits

✓ Learning consists of setting up a posture and this posture organizes the actions.

✓ We learn integration from very beginning; it isn't built up after the habit is acquired in parts.

vs D
D. doesn't mention how movements organize. change of ballistic + tense movements.

✓ Difference between D. and our treatment depends on these points:
1. "Integration" - focusing posture on these points
2. Analysis of movements ^{basic} _{plane}

We have no idea what happens when habits are built up. Analogy of automatic telephone.

✓ Patterns in periphery which are somehow connected.

The Senses

A classification - not on kinds but functions

A. All together - pattern 'spatial' simultaneous

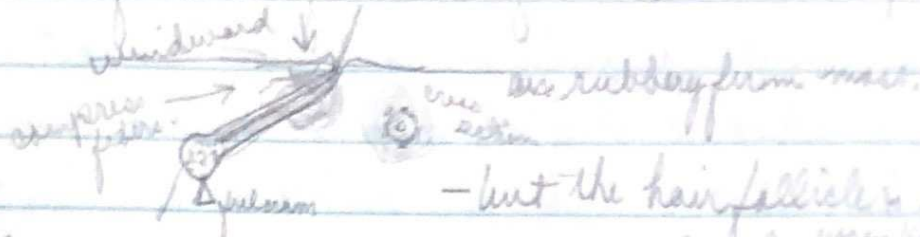
1. Pressure (touch kinesthetic) ^{detected touch → muscles (deformation)}
 2. Vision (a chemical sense)
 (Showing pressure is fundamental sense)

B. One after another, serial, temporal

1. Pressure (touch) kinesthetic (muscle)
 2. Hearing (a waveform)
 (A deaf blind man can have a quite normal human experience)

We know very little about sense organs; we know most about the muscle spindles, fibers. Spindles are end organs for touch.

Figure on skin in book P¹⁶ is purely imaginary. The hair follicle is from that of a rat. (A true picture)



- but the hair follicle is not the only pressure organ. An artificial hair ^{works like} is just as good.

✓ We know nothing of warm & cool except that it depends upon the amount of afferent in the skin.

The punctiform theory ^{doesn't work for skin, open an} experiment by marking spots, removing skin, and looking for end organs.

This is the mosaic theory, but they found no particular findings under the spots. There are definite spots, but nothing under them. After cool spots were burned out, the rims of holes took on sensitivity.

Difference in distance between two pressure points depends upon distance in space, not a distance from each other on the skin. 'Spatial threshold' depends upon ability to discriminate between points on space.

➤ Can't ^{discriminate} intense cold from intense heat (range of stimuli)

Have to respond to cold & heat stimuli - to feel it.

✓ The relation of outside pattern to skin sensation

Nerve rage, scizzors - not a matter of stimuli but of the reaction patterns. Familiarity for ^{Collection of} the arrangement.

➔ Adaption thru continued adjustment to outside pattern.

First outside pattern



How we maintain balance

1. Semi-circular canals
 2. Vision
 3. Active touch contact
 - ? 4. Muscle tension - stimuli from
- } topples without

The rod + cone layer is furthest away from light

AP Active touch - active sight

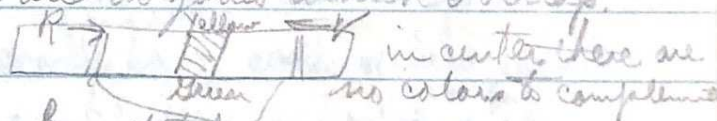
The Perhaps cones for color - rods for black & white

Hering theory All you can say is that there are "processes"

OK Rods assume B-W process dominant + Y-B + R-G are ^{alternative}

Speculation about chemical compounds. You can say there are 3 reversible processes.

These colors are distributed in zones which overlap.



Pigments are filters how to take in center there are no colors to complement

Saturation depends on scarcity black & white with original ^{chromes}

Muscles in eye

Lense ↓ process of accommodation.

Six muscles ↓

Each eye gives an image of its own which overlap and thus gives cue to distance (Tennis in dark)

Biocular vision - should be learned before 10 yrs old.

Audito p 100-105 rev. visual

the only theory of hearing

Helmholtz's theory of hearing is punctiform (a patch for a pitch) (1878 - 30,000 pitch (modern) This is pretty much impossible. (Sounds are very faint at extremes of scale.)

The other theory: cochlea, a tube of solid bone



each patch vibrating to a different pitch. here the entire membrane vibrates (called the telephone theory because the diaphragm vibrates as a whole)

Nobody knows which is correct - attempt at combination 'Stey' does not like the Helmholtz theory.

Usually deafness caused by insensitivity of ear due to thickening of membranes.

à la D. pitch means a frequency, but it depends upon harmonic partials which the ear adds. pref: you can cut out the fundamental & several overtones and yet still hear a fundamental or pitch. A 'partial' is an 'overtone'. Every time the string divides, the higher will be the tone. The tone we hear is about the middle of partials and this is the pitch. Then: pitch is a special kind of tone quality.

Can respond to sound very quickly. It is important to group sounds, hear rhythms etc.

XXXXXX Not covered skeletal behavior

Want don't want a college course but want to try it. You can't see (outcome to want it) Child has little or no ability to deal in futures.

Receptors classified according to function

spatial simultaneous active touch skin & muscle / *distance receptor* seeing

temporal serial ^{moving members} 'active touch' / hearing - distance

Active touch remains the fundamental ^{same organ} reception

Link up with posture:

The gravity stimulation + that in the muscle endings

Gravity

semi-circular canals + active touch in muscles + in skin
+ seeing ¹ sem. cir. + ² active touch + ³ visual field.

In child it starts in sem. cir. canals then to active touch and finally then field of vision. Field of vision is kept constant by posture - the sense of vertical & horizontal - Don't see with eye alone, seeing depends upon other senses. Hearing, also, ^{of any sort} calls into operation organization of movement - it depends upon ^{groups} movements which in them involve active touch. Posture involves four or five different kinds of movements

Link up with 'creeping' - go back and see how the whole behavior involves all of the previous discussion

Repeated serial movement controlled by posture.

When reaching changes to creeping, the distance receptors are involved.

We can get at results of human behavior, but the intervening behavior is all misty. Can get an idea of stimulating patterns

and the patterned response.

no instincts
instinct = learned
merely a comb
of reflexes

Behavior to be explained - how? It is all built up, all learned, (a denial of instincts,) There are no fundamental instincts or instincts. (Fear love etc.) is only name for a combination of reflexes.

Everything is learned - artificial, not natural
The various kinds of stimulation and movement organization.

✓ P of two fundamental groups of sense organs
The fashion they have to do with creeping
How organization occurs.

✓ Outside pattern of stimuli don't matter till responded to
It is not a pattern really until it is organized.

Head holding - gravity (posture)
Eye - light - hand → (grasping) } a long learning process.

Out of such material patterns are finally organized
Learn from these various kinds of stimuli such as active touch & vision + act. touch & hearing

Through these forms, the stimuli are organized.

Conditioning another word for forming habits
A simple type of habit, the Rs are not identical.
When have a slower movement or posture, then the conditioned movement becomes a part of the going movement

Therefore must begin with 'going' movement. Must first have the 'going' movement and then other movements which can cause relaxation become a part of this movement. No learning, or combination unless this happens.

Creeping, rolling etc. will become organized only when they can become a part of reaching ^{posture} movement.

Conditioning. Set up a tension and then such movement as will fuse with it will in that sense become conditioned.

We do not know how muscle action is directed, the muscles just seem to blunder into the channels ⁱⁿ which we desire to put them.

As far as conditioning ^{goes}, these movements blunder in.

Set up the posture and you will play b.b. better; can't say just how you will do this or that, but get the general posture and these will come.

Habit is a changing reaction, movements drop out.

Anticipation is very important in cond-g.

These movements get in which can fuse with posture ^{going movement} drop out " are unnecessary to " ^{not essential}

Ways movements get together, ballistic supported by slow postures organized slow & fast movements aren't ^{some} Movements become finer & more ballistic, altho the result, aim, end, remains the same. ^{type}

chance ✓

Adventurous
&
unconventional

hearing
Forgetting

Character of visceral muscles + a different classification of duct

Effectors for emotion (Dashiell doesn't come right on)

A mass of reflexes just as in skeletal behavior is what accounts for emotional behavior.

- skeletal reflexes
1. gravity - head holding posture
 2. eye light
 3. r-l & f-b ← (to these must be added the emotional reflexes)
 4. knee reflex flexion
 5. " extension comes in later from pressure on bottom of feet

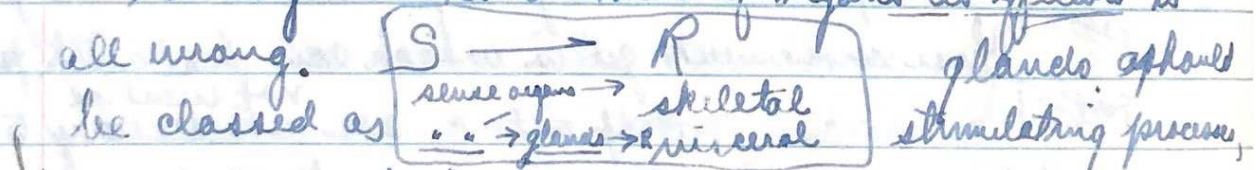
Emotions are exactly like other habits and interests developed and organized in being learned. ~~We do~~

↓ We do not count these visceral activities as behavior.

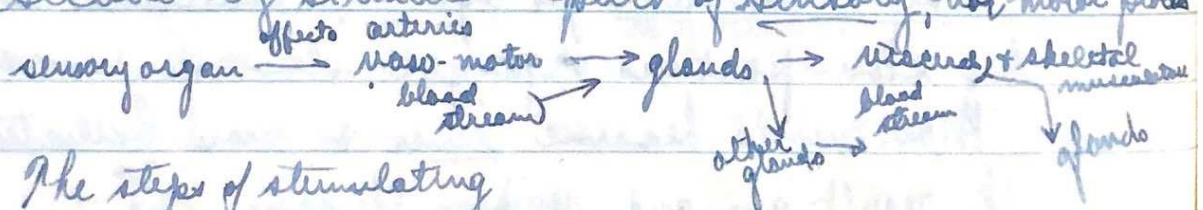
They either facilitate - modify or affect skeletal behavior - considered primarily as something that

Because there is nothing rapid, direct, or precise about this activity, you can't expect them to lead off to any action. A large amount of visceral ^{activity} behavior doesn't affect behavior at all.

'Stetson' thinks treatment of ^{glands} organs as effectors is all wrong.



↓ secondary stimuli - part of sensory, not motor process



The steps of stimulating the muscles.

dog cat - vision → more blood → adrenaline → blood to muscles.

Only motor nerves connected with them. no sensory endings in the autonomic system.

impulse might take either synthetic



smooth muscles

These movements are very slow ^{due to lag} the () will ^{not} respond before the skeletal reactions, so the visceral actions modify the skeletal movement. So the smooth muscles are not a system but only a motor branch. which Possible that whole skeletal musculature

is connected with visceral

One theory divides the ^{into excitatory +} sympat. nerv. system into excitatory + inhibitory | action of heart

Visceral muscles innervated by motor branch & then the stimuli from visceral contractions ^{over} (organic sense organs) into the C.N.S. again. Also the glands are ~~slow~~ affected by the contraction of arterial muscles. Sympathetic system is only a motor branch.

Stimulation from visceral muscles never causes a skeletal contraction. Modifies the action then ^{chemical} slow process.

So you get an elaborate skeletal response before the modification by visceral & gland stimulation occurs.

"A person strikes but is not angry - merely a habit or ^{part of skeletal} sim"

Can't predict emotional responses. They come in midst of &

Kitten playing & fighting is different (also from child's ditto)

Can describe an emotional action only in terms of skeletal

James does not distinguish between visceral & skeletal react

^{brain} ~~reaction~~ ^{reverbating} he thinks of the emotions in brain only.

We think of emotion, like any behavior, as occurring all over. ^{consciousness in brain only}

skel muscles & visceral

we characterize (a series of habits as an emotion, ~~process~~ ^{an attitude})

The James-Lange theory

idea was that emotion is ^{not} expressing both aspects that consciousness is involved.

Sensations arise in consciousness in brain. stimuli set up a reverberation in brain which is result of organic stimuli which produce sensations (which produce emotions). The impulse goes through the brain down & back to brain again where the sensations from bodily change cause the emotion. ~~He~~ He thinks emotions pretty much innate.

Now we don't separate brain from other tissue, nor do we have sensations. The experience is overall - depends upon total reaction. The only difference between skeletal and ^{emotional behavior} visceral activity ^{present} is that visceral muscles and glands are involved in emotional behavior.

Both muscular & chemical stimulation from glands.

How does emotional behavior get started?

How does emotional behavior ^{reinforce, modify} back up ^{behavior} skeletal?

Used to say emotion was excess ^{musculature} action spilled over into visceral organs - given up along with drainage theory because there is no head ^(all of nerve) accumulated in ^{visceral} system.

happens at times

Dewey - emotions produced by conflict of skeletal reactions. ² Excess skeletal ^{contraction} reaction

in which great tension is developed leading visceral ^{reaction}
 3 (Special form of stimulation from spec. organic sense organs for specific stimuli.)

might more - gradually waking process, reorganizing of body may result in sleep ^{waking}

↓ We do not know how the tension causes visceral reaction nor how visceral affect skeletal (except that ductless glands influence chemically.)

Motivation and relation between visceral & skeletal Behavior = reactions. We have continual ^{or motivation} stimuli ^(out)

Viscera concerned mainly with inside stimuli (the kinesthetic stimuli from skeletal muscles, cyclic, & also! the organic stimuli from visceral vasculature & the chemical stimuli from hormones of ductless glands)

Outside S.o might be continual or instantaneous, but the inside S.o are continual, cyclic, slow.

↓ It has been surmised that behavior is started ^{stimuli of} by the visceral musculature (contractions of stomach ^{hunger})
Dashill doesn't stress this as much as Watson & other

Organic stimuli start only that behavior which has been learned. The reactions are all learned. (The stimuli set up in hunger & response after learning how tension can be ^{relaxed})
When these are learned they become fixed ^{habits} responses.

The glands don't lead to any particular reactions.

↓ These do not direct any behavior. Skeletal muscles in main wait start behav. So it is either outside or visceral stimuli which start behavior ^{will}

Outside stimuli: [gravity + press. light eye + press] ^{will} these direct and organize behavior!!! Are probably important factors in initiating behavior - especially in the organizing of behavior which can deal with environment

Requirements of behavior = gravity + eye light both connected with pressure. These are setup and then the other stimuli occasion reactions which are fused into the behavior skeleton.

Perception doesn't give elementary material
Perception where? and what?

James used to look first at object - the awareness of an object present to sense. - then at sense stimuli ^{part seen}

- 1) There are numerous patterns for same perception
- 2) And the ^{stimulus} pattern itself may change.
- 3) " the object also may change.

The ^(set of movements) reaction is what remains stable. ^{identity in the "use" or "function"}

It follows that same st. pattern may not be same for 2 people depends upon the reactions aroused. Everybody views world in terms of their own responses. (Permit = a dressy ^{wishes})

context

Lower animals don't react to ^{an} same object under different contextual circumstances in same way - (wolf + spider)

orientation

Object will be in some context, an outside arrangement. You never get reaction to a single, simple stimuli pattern but only as part of a larger ^{system of actions.} organization - (something like "change" in sense stimuli?)

Movement = motion action = motion + purpose

missed
no period
after
reaction

Prep. = adjust or preparatory reaction as distinguished from the actual activity.

But you can not tell where the line between the preparatory action and the action should be drawn. In some cases there is no completing of preparation, but it blends right into real activity. $\Rightarrow \Leftarrow$ "Orientation" does not come to end. The preparation is so general, large, that not all the possibilities will be completed at once.

You can say the earthworm has certain ^{preparation} information

A person ^{possibilities that can't all be completed.} knows more than he can do. \equiv like tele-phone system

The "peak load" of possibilities that might be connected

Difference between Thinking and Acting.

Thinking consists of possibilities for action which are not all realized (the realizable).

(Label in newspaper - when sold - like ^{thinking} inside & outside activity)

Does not depend upon obvious movements. Thinking occurs in all kinds of terms.

Symbols formed gradually from more complete stimuli a process of conditioning to recognize these symbols, which have become separated from original stimulus ^{cross section etc.} through slow growth.

The cathedral analogy stone, little stone, wood, wood, grand plan ^{little}

Make preliminary experiments with symbols, a matter of substituting more advantageous materials, experimenting with a little which will represent whole. Thinking saves time, & expense, etc.

Behave an example of social stimulation - the ^{reciprocal} "intelligence of the hive".

Perception = a preparatory, preliminary, orientation, experimental reaction $\leftarrow \rightarrow$ leading to action behavior Knowledge = \rightarrow which have not completed themselves but which are capable of completing

Knowledge = you are set to do, the possibility, capacity for acting which can not be completely carried out.
Knowledge always exceeds activity. Knowledge of behavior reciprocal preparation of whole ^{not in} ^{single} ^{mass of reciprocal} ^{relations} ^{processes} ^{being}

Compare to economic system of man

We have 2 kinds of knowledge group and individual

Even just knowing a fact is a kind of preparation H&D

↓ Perception = 1st stage of making possible reactions which may or may not be carried out & which constitute what we call knowledge.

↓ (Perception = 1st stage of "thinking process")

Signaling to oneself, a la D, constitutes an important part of thinking (Doing multiplication in one's head.)

Perception in a simple case.

The sprinter on his mark - delayed reaction, like dog & lighted doors - he has whole set up (i.e.) is a ^{perception} oriented to spatial situation, type of race, terrain & posture, waiting for the "signal"

Can't draw any line between the ^{distinction} signal and the ^{perception & reaction} running. The running is the way he gets the ^{perception} thinking - they are one & same reaction fused into each other. but you

↓ can show the stimulus but the perception from S₁ & the reaction can't be separated.

An elaborate case = Reading

type patterns ← organization - pronunciation
apparently S₁ → P₁ → thinking - action

organization determines what you will make of type patterns
the letters & words are read in terms of the organization.

✓ So you cannot separate the perception from organizing

Pen & take four cases 2 simple & 2 complex to analyze
percept. - organiz. - action all these stages depend upon
the one before. Simple direct reaction + response
and the more complex choice reaction. Can determine
these by time consumed in action 156th of second for simple.

After the perception + organiz. / action sometimes per/org.
Why distinguish between perception and reaction? No

Many preparations made, which are not completed. The
thinking + perception are very important to humans

✓ No perception in reflex reaction of spinal cord.
 $S \rightarrow R = < 150$ reaction before perception

Automatic reaction do involve perception.

One object or two objects? In group or social situation
The 'field' involving ^{orientation spatial} posture a pattern involving ^{ac. touch} vision
In this field one says we see two lights or a pair of lights
What separates lights (the process of manufacture)

the movements involved in forming the system.

Depends upon the difference of perception of each individual

For example. A whole table, or ^{sticks} ^{and oak} what periods of furniture

Depends upon habit, custom, - the way you handle it.

Of deal with it as whole, call it one; as two, two

Pair of pairs set or sep obj. one two → one

percep. → knowledge } depends upon past experience

" → imagination }
not knowledge

vocal cords are lips - not stretched cords

Watson - thinking consisted of speech movements but that's wrong. There is much thinking that goes on without speech. A most elaborate skilled activity

Speech

vocal fold is thicker

- 1) articulating apparatus - lips etc.
- 2) larynx: cushion pipe
- 3) bellows: (no pressure)

fundamental
syllable is the unit of speech

'Sound' consonants, vowels, word, phrase

The ^{speech} sound does not depend upon the larynx. Wolperting + rehearsal operation

Syllable begins by a puff of air from chest which is then modified by (i) & resonator

Two musculatures 1. of small muscles for syllable & short, with well-defined attachments in chest.

2. larger group which takes care of phrases - supporting seen in throat External intercostals - inflation + seen in back Internal intercostals - deflation



These are the short muscles for high speed puffs. 8,9,10 & 11

Diaphragm - inspiration + rect Abdominal muscles - expiration

maintains chest so the small muscles can make ~~over~~ puffs

Phrase movement is a slow adjusting movement to support the rapid puffs - keep a posture. slow-level movement.

The little puffs - make tone at larynx. mouth vocal cords tongue + blocks lip stops

vowel = shapes consonants blocks

surds & consonants $\frac{t}{d}$ s z - leaks $\frac{1}{2}$ blocks

nasals ng, n, m

consonant blocks come at both end & beginning. ends to at beginning releasing & resting consonants

surds k, t, p

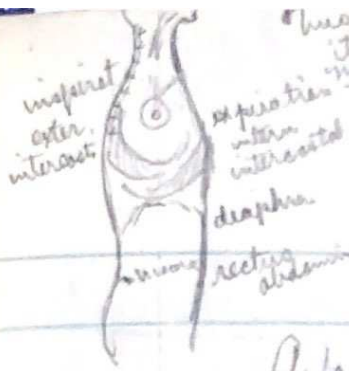
consonants qu a, b up up up

continuants l, r, $\frac{s}{z}$ $\frac{sh}{j}$ $\frac{ch}{t}$ $\frac{th}{th}$

vowels shapes of vocal canal

how they are articulated in syllables.

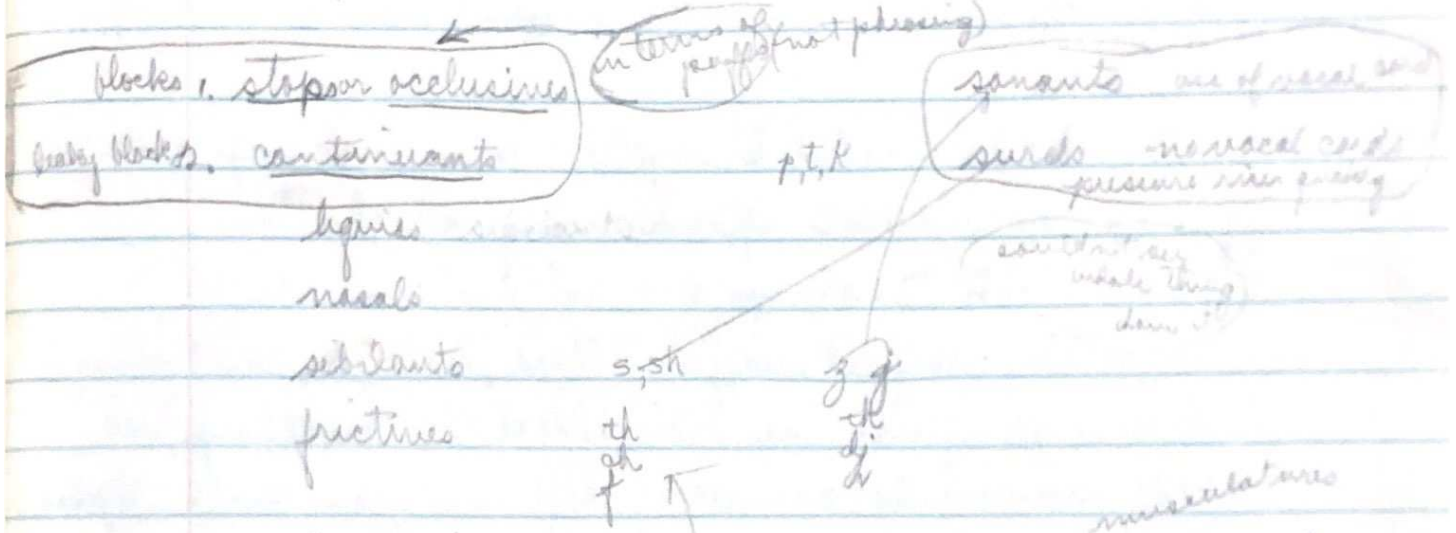
up \rightarrow pup pup-pup-pup-pup $\frac{p}{p}$ - the releasing consonant remains



two forms of muscular

1. Internal & External intercostals for puffing up
 2. Rectus abdominis & diaphragm for pressure, change of pattern
- another ^{he said} ^{look at this?} ^(The diaphragm contracts)
 vs D. Expiration is not a matter of relaxation (this is only in sleep breathing)

A fault in speak-g + sing-g to inflate chest + try to keep it so.



don't have to know details merely the fundamentals - of the flexor releasing & resting ballistic movements

external internal intercostals

showing that the movements are ballistic

Accent said accenting process is matter of supporting muscles abdomen ^{muscle} is a culmination of supporting muscles.

Fr. has phrase accent not word accent. In English the phrase accent has to be accommodated to word accent.

French has dropped resting consonants phrases grouped together into periods which corresponds to one breath ^{phases slow down when a large breath + expiration}

Period → phrase → (syllable or puff.) ^{quizzical}
Chap

(Notice enormous range from simple perceptions to symbolic (implicit) notice development of perceiving. for next semester)

Speech abbreviated to implicit forms. D says you perhaps an internal speech running all the time.

Experiments D. slangs are extremely crude

Stetson says it may be there, but you can't prove it.

Internal speech does not affect the breathing, so these movements are very different from normal speaking.

Thinking (just as reading) goes on in part in words, though it is not a mere matter of implicit speech.

[The syllable is a ballistic thing] ^{from beginning child} and so you can't get slow speech. Child's phrasing is almost as ^{rapid} fast as adults. the pause between syllable phrases is where he slows up. Child gets syllables + accent even if ^{not} sounds like phrasing expression. words come separately ^{later than} expression

Ruskin Selections C.B. Tuckered

- 1. Introduction } style
- The earth and sea
- The mountains and valleys
- The grand style } See balance & defn

quiz

- 2. 10. 39-76
- 3. 76-100
- 4. 100-164
- 5. 164-199

- 5. 164-199
- 164-170
- 170-180
- 180-199

Ruskin's 7 Lamps of Architecture

Past + Present

- | | |
|-------------------------------|------------------|
| 1. I | 2. II ✓ |
| 2. II* | 3. III ✓ |
| 3. III | 4. IV |
| 4. IV | 5. Review |
| 5. V | 6. + |
| 6. Finish quiz | Garnet's wife |
| wr. titles of Chaps. in Guide | |

One lamp a lesson

Notebook 1

Def-> behavior -> individual = our schedule work

We don't know how sense organs act as yet

Learning = a psychological change - but no method of inspection psychological law to discover the difference between a person's file and other

We can explain input in terms of physics and chemistry what goes on between them?
output

James 'brain path' and the 'condition reflex' are no longer accepted as true. Have fallen down.

Review Questions. First Semester, 1931-32

1. Using psychological material, illustrate the practical, aesthetic, philosophical and scientific attitudes.
2. Distinguish psychology from physiology.
3. What are the implications of the S-R formula:
 - 1) re the places where the organism may be stimulated;
 - 2) re the parts which respond;
 - 3) re the possibilities of self-control;
 - 4) re the conditions of motivation.
4. Cite concrete illustrations of the role of postural set in
 - 1) the conditioning process;
 - 2) skilled movements;
 - 3) mental attitudes.
5. "A certain amount of maladjustment of the animal to its environment is a sine qua non to novel response." Cite an instance in which the disturbing factor is (1) external; (2) internal. Indicate the receptors involved in each instance. Compare Dashiell's description of the character of the animal's R. to maladjustment with Dewey's in "Human Nature and Conduct," Pt. II.
6. What features of the activity of striped muscles are of special significance to the psychologist?
7. Cite three instances of the action (1) of smooth muscle, and (2) of gland, acting as self-stimulant.
8. Psychological processes are all reactions. Describe the reaction involved in a representative sensation, such as tasting sugar, or hearing a bell. Cite an instance illustrating the process by which a stimulus acquires meaning. Cf. Dewey's discussion of the meaning of impulse.
9. Indicate the role of kinesthesia in (1) tactile perception; (2) in visual sensation; (3) in skilled movements.
10. Cite five instances in which muscle tension (or distention) acts as a stimulus.
11. Does the organism act as an integrated unit, or is the reflex the elementary action-unit? Which concept constitutes the better basis for a theory of inhibition?
12. Characterize the child's innate equipment of reaction tendencies. Report your own conclusions re a minimal list.
13. Just what is the error of conceiving of an instinct as a driving force? How do you dispose of the factor of energy in mental activity? What parallel is there in behavioristic theory for McDougall's "boilerful of steam"?
14. Why do one's interests have such a hold as they do on one?
15. Review the position of the following groups with reference to the

Central features in human motivation: Platonists, Voluntarists, Psychoanalysts, Thorndike, Berman, Kempf, Dashiell, the Oberlin group.

16. How do one's dreams reveal one's personality?
17. Summarize Dewey's concept of human personality.
18. Report Dewey's method of disposing of the factor of "purpose" in connection with innate tendencies?

Revised ques let Semesters
1931-33 Psychology

Final - June 8, '34

1. Neurosis and psychosis; heredity vs. transmitted; pathological vs. a-normal.
2. Symptoms of hysteria: apnea, amnesia, fugues, tics, obsessions.
3. Dissociation theory of hysteria. False attitude, need of conversion.
4. Ideational factor. Suggestion=? Judgment=?
5. Theories as to cause of stammering. Methods of re-education.
6. Physiology of the sub-consciousness (Kempf, White.) Fixation, compensation, Oedipus complex.
7. Development of the delusion; relation to reasoning; source of the content of delusion.
8. Manic depressive insanity, why chemical? Degenerative insanities, why lesions?
9. Cretinism: cause, symptoms, treatment.
10. Use of tests and their limitations in dealing with f.m.
11. Training for the deaf: language difficulty and methods.
12. Aphasia: various forms; relation to the speech of the child, and of the f.m.