

Chapter 1: Introduction

22

Psychology 402 - Fall 2014 - Dr. Michael Daler

Basic Concepts

- What is a psychological test
 - measurement device or technique
 - quantifies behavior
 - data is used to make predictions
 - usu. composed of individual items
 - often scored w.r.t. normative data

23

Psychology 402 - Fall 2014 - Dr. Michael Daler

Why use tests?

- Why use tests? vs. the alternative -- just measure the thing directly
 - faster - saves time
 - more convenient, portable, virtual
 - standardize across space & time
 - less dangerous (e.g. brain surgeon)
 - more accurate(?)
 - \$\$\$\$ profit

24

Psychology 402 - Fall 2014 - Dr. Michael Daler

Arguments against testing

- UnReliable -- inconsistent results
- InValid -- doesn't measure what it claims
- Biased -- treats sub groups differently
- Enforced conformity -- punishes creativity
- People & Institutions adapt -- "study for the test", expensive tutors
- Expensive -- few large private companies hold most of the business
- Privacy & Security & Cheating

25

Psychology 402 - Fall 2014 - Dr. Michael Daler

Test types: administration

- Types of tests:
 - Individually-administered Tests
 - Group-administered Tests
 - Computerized (?)

26

Psychology 402 - Fall 2014 - Dr. Michael Daler

Test types: domains

- Ability, Capacity or Potential
 - Achievement
 - learned skills or knowledge in specific area
 - Aptitude
 - ability to learn new skills / knowledge in specific area
 - Intelligence
 - general ability

27

Psychology 402 - Fall 2014 - Dr. Michael Daler

Test types: domains 2

- Personality
 - Structured (“Objective”)
 - Projective
- Military & Civil Service
- Vocational Counseling
- Industry / Business
- Clinical Psychology / Psychiatry
- Health Psychology
- Neuropsychology
- Research

28

Psychology 402 - Fall 2014 - Dr. Michael Deiter

History - Antiquity

29

Psychology 402 - Fall 2014 - Dr. Michael Deiter

History : China

- Han Dynasty (206 BCE thru 220 CE) had test batteries for law, military, agriculture, geography, etc.
- The “Imperial Examination”

30

Psychology 402 - Fall 2014 - Dr. Michael Deiter

Gold, silver, brass, iron

“Citizens, we shall say to them in our tale, you are brothers, yet God has framed you differently. Some of you have the power of command, and in the composition of these he has mingled gold, wherefore also they have the greatest honor; others he has made of silver, to be auxiliaries; others again who are to be husbandmen and craftsmen he has composed of brass and iron; and the species will generally be preserved in the children. But as all are of the same original stock, a golden parent will sometimes have a silver son, or a silver parent a golden son.”

-- Plato, *The Republic*, circa 380 BC

32

Psychology 402 - Fall 2014 - Dr. Michael Deiter

History : 18th - 19th Century

- The zeitgeist : colonialism, independence, contact between new races & ethnicities. Slavery.
- The needs: justify slavery, inequality.
- The techniques: very crude statistics, physical measurements
- Evolution vs. Creationism

34

Psychology 402 - Fall 2014 - Dr. Michael Deiter

Racial Attitudes of the 1800s

“[...]There is a physical difference between the white and black races which I believe will for ever forbid the two races living together on terms of social and political equality. And inasmuch as they cannot so live, while they do remain together there must be the position of superior and inferior, and I as much as any other man am in favor of having the superior position assigned to the white race.”

-- 1858, in a debate with Stephen Douglas

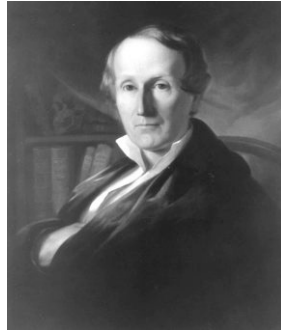
Abraham Lincoln

35

Psychology 402 - Fall 2014 - Dr. Michael Deiter

Samuel George Morton

- Theory of Polygenism
- Humans are composed of different species, created by god
- Craniometry
- Biological Determinism
- “Scientific Racism”
- The “American School”
- d. 1851



Psychology 402 - Fall 2014 - Dr Michael Deter

36

History : 18th - 19th Century

- The zeitgeist : colonialism, independence, contact between new races & ethnicities. Slavery.
- The needs: justify slavery, inequality.
- The techniques: very crude statistics, physical measurements
- Evolution vs. Creationism

Psychology 402 - Fall 2014 - Dr Michael Deter

37

Species

- Old definition:
 - group of organisms that can breed
- Modern definition:
 - “Species are actual or potential interbreeding populations sharing common gene pool, reproductively isolated from other groups.”
- Example:
 - male donkey + female horse = mule (sterile)
 - female donkey + male horse = hinny

Psychology 402 - Fall 2014 - Dr Michael Deter

38

Species

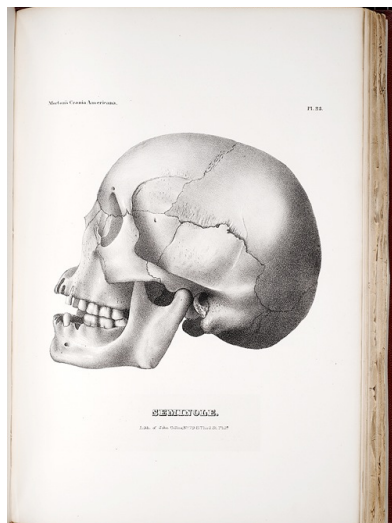
- Hybrids
 - Mule = male donkey + female horse
 - Hinny = female donkey + male horse



39

Crania Americana

Samuel George Morton
1839



Psychology 402 - Fall 2014 - Dr Michael Deter

40

Visible differences?

Indigenous
Australian
Melanesia
African
European

Australian and
Africans are most
genetically
different

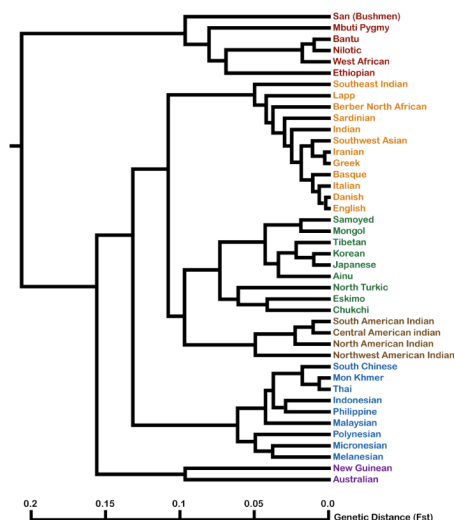


Psychology 402 - Fall 2014 - Dr Michael Deter

41

Genetic Differences

- Sub-Saharan African
- Indo-European
- East Asian
- Native American
- South Asian
- Aboriginal



42

Psychology 402 - Fall 2014 - Dr. Michael Deter

History : 19th - 20th Century

- The zeitgeist : Industrialism, world conflict, communism, capitalism
- The needs: healthcare, war, government -- desire to identify unusually high & low functioning people
- The techniques: Advanced statistics, measurement theory
- Theories of psychological development, intelligence, genetics.

43

Psychology 402 - Fall 2014 - Dr. Michael Deter

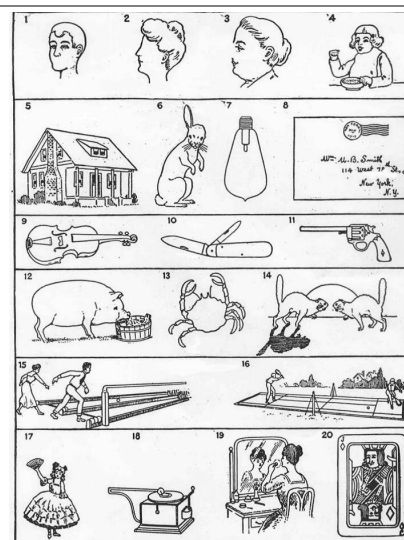
Early 20th century

- Notable events in history:
 - Binet-Simon Scale
 - introduced idea of IQ as ratio of mental age to actual age
 - use of standardization sample
 - Army tests -- WWI
 - Alpha -- literate
 - Beta -- illiterate

44

Psychology 402 - Fall 2014 - Dr. Michael Deter

Army Beta



45

History 3: IQ tests

- Charles Spearman : “g” -- theory of general intelligence factor underlying all other special abilities.
- David Wechsler: WAIS and WISC tests
 - Subtests - Verbal vs. Performance Scales
 - Large normative group -- IQ = performance as related to peers
- Thurstone, Cattell, Guilford, Gardner, others: further theories of intelligence (covered later)

46

Psychology 402 - Fall 2014 - Dr. Michael Deter

History 4: Personality Test

- Traits vs. States
- Structured (“objective”):
 - WPDS (early)
 - MMPI, CPI (modern)
 - 16PF (modern, based on factor analysis)
- Unstructured / “projective”:
 - Rorschach (inkblot test, Exner’s scoring)
 - TAT (Thematic Apperception Test)

49

Psychology 402 - Fall 2014 - Dr. Michael Deter

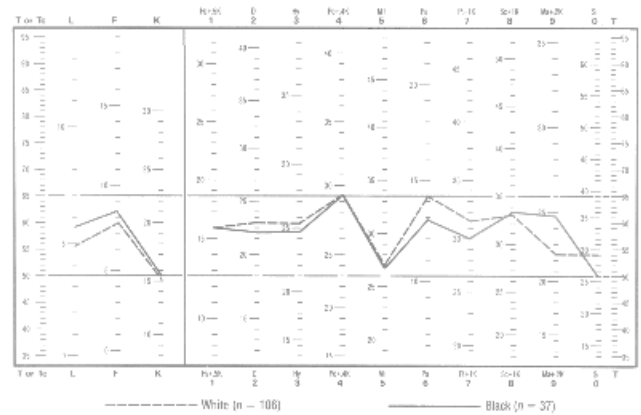
MMPI

1. I like mechanics magazines
2. I have a good appetite
3. I wake up fresh & rested most mornings
4. I think I would like the work of a librarian
5. I am easily awakened by noise
6. I like to read newspaper articles on crime
7. My hands and feet are usually warm enough
8. My daily life is full of things that keep me interested
9. I am about as able to work as I ever was
10. There seems to be a lump in my throat much of the time

50

Psychology 402 - Fall 2014 - Dr. Michael Deiter

MMPI



51

Psychology 402 - Fall 2014 - Dr. Michael Deiter

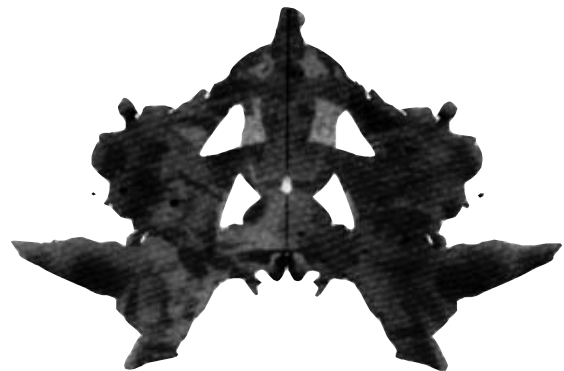
TAT



52

Psychology 402 - Fall 2014 - Dr. Michael Deiter

Rorschach 1



53

Psychology 402 - Fall 2014 - Dr. Michael Deiter

MMOM - Themes

- Biological Determinism - a theory of limits
- Measuring intelligence as a single quantity
- Plato: dialectic. Church: dogma. Now : science.
- "Book is about the scientific version of Plato's tale"
- "Socrates knew that he was telling a lie"
- Science (and scientists) are not objective
 - social endeavor
 - fraud, but also (and worse) unconscious bias

55

Psychology 402 - Fall 2014 - Dr. Michael Deiter

MMOM - Fallacies

- Reification
 - naming a thing gives it disproportionate power
- Ranking
 - over-simplifying complexity by ordering on a single scale

56

Psychology 402 - Fall 2014 - Dr. Michael Deiter