Anthropometry Lab

- Living
- Anthropometric (measurement of living)
- Anthroposcopic (non-metric traits in living)

Anthropometric

- Head length
- Stature
- Genetic basis: polygenic
- Continuous variables

Anthroposcopic

- Qualitative variables
- More discontinuous variation
- Percentages
- Genetic basis: complex
- Subject to selection
Skeletal Measurements

- Osteometry: measurement of bone
- Craniometry: measurement of skulls

Non-Metric Traits

- Skeletal
- Dental
- Cranial

Instruments

- Anthropometer
- Calipers: sliding and spreading
Index (Indices)

- Cephalic Index = Head breadth/ Head length X 100

Cephalic Index

- < 75%: dolichocephalic, or 'long-headed'
- 75%-80%: mesocephalic, or 'medium-headed' (sometimes mesaticephalic)
- > 80%: brachycephalic, or 'short-headed'

Constitution and Physique

- Anatomical structure
- Function
- Behavior
Classification

- Fat
- Muscle
- Bone

Schools

- Italian (Viola) school: longtype; brachitype; normotype; mixed-type
- French School: muscular; digestive; respiratory; cerebral
- German (Kretschmer): leptosome or asthenic; athletic; pykinic
- American School (Sheldon, 1940)

William Sheldon's Somatotypes

- William Sheldon (1898-1977) American psychologist
Sheldon’s Method
1 (low) to 7 (high)

pure mesomorph: 1-7-1
pure endomorph 7-1-1
pure ectomorph 1-1-7

Endomorphic Body Type
• soft body
• underdeveloped muscles
• round shaped
• over-developed digestive system

Mesomorphic Body Type
• hard, muscular body
• overly mature appearance
• rectangular shaped
• thick skin
• upright posture
Ectomorphic Body Type

- thin
- flat chest
- delicate build
- young appearance
- tall
- lightly muscled
- stoop-shouldered
- large brain

Constitution & Behavior

Endomorphy: Endotonia

- love of food
- tolerant
- evenness of emotions
- love of comfort
- sociable
- good humored
- relaxed
- need for affection
**Mesomorphy: Mesotonia (Somatonia)**

- adventurous
- desire for power and dominance
- courageous
- indifference to what others think or want
- assertive, bold
- zest for physical activity
- competitive
- love of risk and chance

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**Ectomorphy: Ectotonia (Cerebrotonia)**

- self-conscious
- preference for privacy
- introverted
- inhibited
- socially anxious
- artistic
- mentally intense
- emotionally restrained

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**Alombroso’s Theory of Born Criminal**

- Criminality was inherited, and that the born criminal could be identified by physical defects, which confirmed a criminal as savage or atavistic.
Constitutional Types and Endocrine Functioning

17-Ketosteroids: muscle in body, 17-Ketogenic excretion: width of shaft of bones
Creatinine steroid: muscle
e.g., ectomorphs - pulmonary tuberculosis,
higher thyroid secretion.
endomorphs - coronary thrombosis, diabetes (late onset)