

## RACE

folk taxonomies

Taxonomic definitions of race

subspecies category

"A race is a division of a species which differs from other divisions by the frequency with which certain hereditary traits appear among its members "

"A race is a subdivision of a species, consisting of populations that have different combinations of gene frequencies".

trinomen ( e.g., *H.sapiens neanderthalensis*).

3 major approaches: typological, population, and clinal approaches.

### Typological Classifications

Blumenbach in 1775

Caucasian-White

Ethiopian/Negro-Black

Am. Indian-Red

Malayan-Brown

Mongolian-Yellow

Linnaeus: 4 races

Boyd (1950) 6 races/ 13 races

Coon, Garn and Birdsell (1951): 30 human races

### Populational Model

#### Clinal Model

Race and Behavior (behavioral genetics)

racism

I.Q. scores

Yasuhiro Nakasone (1986)

Japanese I.Q. 111 vs. 100 for Americans

### intelligence

Problem solving ability is often critical in judging one's intelligence.

Thinking logically is also important.

Imagination and abstract thought play a role.

The ability to synthesize theories and facts is also important.

Motivation plays an important factor.

### Idiot savants

## Do Genes Affect Intelligence?

### Behavioral Genetics

Monozygotic (MZ) or identical twins are two genetically identical individuals arising from the same fertilized ovum.

Dizygotic (DZ) or fraternal twins arise from two separately fertilized ova (they are as different as any sibs would be).

Arthur Jensen

Charles Murray (*The Bell Curve*)

William Shockley

heritability coefficient  $h^2$ : ratio of genetically ( $V_G$ ) caused variation to the total variation ( $V_T$ ) in one population at a specific point in time.

$$h^2 = V_G/V_T$$

$$V_T = V_G + V_E$$

1 = no environmental component, all variation is due to genetic differences

0 = no genetic component, all difference is due to environment

e.g., if  $h^2$  of I.Q. among U.S. elementary children is .70, this means that 70% of the I.Q. test score variation among elementary school children is attributable to genetic differences between members of that group and the rest is due to other (non-genetic) sources of variation in the same subjects. It does not mean that the trait relies on 70% heredity and 30% environment.

1.  $h^2$  applies only to the populations for which it was initially calculated. It says nothing about heritability of the same trait (like intelligence) in another group of humans.
2.  $h^2$  refers to a particular trait for which it was calculated, it says nothing about other traits.
3.  $h^2$  refers to variation differences from person to person for that trait in some specified population

Environment and I.Q.

Equality does not mean identity