

Samuel morton's theories on race



SAMUEL GEORGE MORTON:**A VIEW INTO HIS PSUEDO-SCIENCE**

Samuel Morton was an American born physician that helped shape world views on racism in the 1800's. His work in the measurements of various human skulls was one of the major influences he introduced to racism. Although it was initially planned as a scientific exploration into the physical differences of races, it may have influences on racial hate everywhere. Some researchers have investigated the possibility of Morton's own racial biases being the reason for some of his conclusions from his research. This paper intends to show that Morton was strictly scientific in his studies and refrained from intentional or unintentional potential biases of his research.

The story Samuel Morton begins the 26th of January in 1799, when he was born to a small family. Soon after his birth his father passed away. (Wood, 1852) After the death of his father, he and his family moved to New York State. While in the New York he was placed in Friends boarding school where he got a rudimentary English education and found his love for the sciences. (Wood, 1852) His mother was plagued with illness for most of Morton's childhood, her final illness 1816 was tended to by several physicians. This is where he acquired the respect and affection for the medical profession. (Wood, 1852) Shortly after the death of his mother he began attending lectures at the University of Pennsylvania. In the spring of 1820 he received his doctor of medicine degree from U. Penn. (Wood, 1852)

During his initial years as a physician, he found that practicing medicine was not in his best interest. In 1834 he had the opportunity to go to the West

Indies, the initial reason for the trip is unclear. (Wood, 1852) It is thought that during this trip he found his niche of human crania, and began his collection and studies that influenced the world. He spent of his time, when not practicing medicine, collecting and measuring skulls of various races and origins. It was from this collection that two of his most famous books were born, *Crania Americana* and *Catalogue of Human Crania*. Throughout his successful career in research and writing, he became a member of the Academy of Natural Sciences. He remained a member of the Academy of Natural Sciences until his death in Philadelphia on May 15, 1851. (Wood, 1852)

This brings us to Morton's first book of discussion, *Crania Americana*. In this book he categorizes various skulls from around the globe. (Morton, 1839) He claims to make his observations under a strictly objective lens, refraining from all his personal views and biases. For the most part this is true, in regards to his measurements. But, there are some his descriptions that one can't help but to put under scrutiny and view them as potentially biased.

When he is reviewing his subjects he notes their physical characteristics, but also some subjective biases. He notes skull proportions in relation to their bodies, but also intellectual characteristics that are his own ideals about the race. (Morton, 1839) For each race, reviews the skull size and shape, face proportions, as well in the intellectual characteristics. He divided his subjects into five races, and twenty-two subdivisions. The races: Caucasian, Mongolian, Malay, American, and Ethiopian. (Morton, 1839)

Upon reviewing his data in the book, it appears the physical characteristics he noted of each race were factual descriptions. The physical characteristics he reviewed for each race include: hair texture, hair color, skull size, face proportions, nasal bones, eyes, lips, cheekbones, etc.

(Morton, 1839) As for the intellectual characteristics, it appears this is where the biases, either intentional or unintentional, show their ugly faces. Of the bat, the first race you see in the book is the Caucasian race, trying to place his race above the others. (Morton, 1839)

The intellectual biases for each race are quite apparent when reviewing his work. The Caucasian race is the only race that Morton says only positive things in regards to the intellectual characteristics. He says, " This race is distinguished for the facility with which it attains the highest intellectual endowments." (Morton, 1839) The other four races he distinguishes in this book do not have such positive reviews of their intellectual character; The Mongolian race: "...ingenious, imitative, and highly susceptible of cultivation." (Morton, 1839) The Malay race: " this race is active and ingenious, and possesses all the habits of a migratory, predatory and maritime people. (Morton, 1839) The American race: " the Americans are averse to cultivation, and slow in acquiring knowledge; restless, revengeful, and fond of war, and wholly destitute of maritime adventure." (Morton, 1839) The Ethiopian race: " In disposition the negro is joyous, flexible, and indolent; while the many nations which compose this race present a singular diversity of intellectual character, of which the far extreme is the lowest grade of humanity." (Morton, 1839) These quotes show a clear bias against the American and Ethiopian races, they have the most negative ' intellectual

characteristics' of all the races in this book. This could be from the time this book was written, the height of the slavery in America. His upbringing could have clouded his judgement and made it be some form of unintentional bias. At least one would like to assume the biases presented here are unintentional.

The other book, written by Samuel Morton, to be discussed in this discussion is *Catalogue of Human Crania*. This book goes into detail with the physical characteristics of the skulls he was studying. He says that race would better be described as groups. (Morton, 1857) Morton compared the physical characteristics of skulls from various races (groups) of men and the skulls of inferior animals. (Morton, 1857) he not only viewed the outside of the skulls, but also attempted to measure the inside capacity of the skulls to find the relative brain size of each race and subsequent inferior animals. This book shows all the raw data from his research, true science with no regard to personal biases.

Catalogue of Human Crania is also the book that introduced the world the pseudo-science of phrenology. Not only was Morton measuring the capacity of the brain, he was examining the skulls for pathological conditions either from disease, wounds, or possible developmental preternatural growths. (Morton, 1857) Attempting to gain knowledge about a race's intellect without the proper psychological test is frivolous. There is no way to tell the intellectual capabilities of any race based solely on the physical characteristics of the skull. There are several intellectually disabled individuals that have proportional and normal skull sizes.

That being said, the actual measurements of the skulls are accurate to best of the present knowledge, and that is the only thing anyone should take away from this book. The sizes of the skulls studied and nothing else. One should not use this book to make assumptions about races or intellect. Since one person's intellect is not representative of the group, only individual intelligence tests be performed used, individually. As this book did introduce the world to the pseudoscience of phrenology, that should not detour from the statistics of the presented subjects. Those are still valid numbers of cranial capacity for those individuals, even if not representative for the groups.

Over the centuries, Morton's writings and research has been the victim of much scrutiny by the scientific community. One of the individuals that scrutinized his work was Stephen Gould. In Gould's paper, *Morton's Ranking of Races by Cranial Capacity*, he criticizes the findings of Morton. He says that Morton either intentionally or unintentionally manipulated his data to show that the Caucasian race is superior to the other races. (Gould, 1978) Gould says, " Unconscious or dimly perceived finagling's is probably endemic in science, since scientists are human beings rooted in cultural contexts, not automatons directed toward external truth." (Gould, 1978) He is trying to show the possibility that Morton unintentionally altered the data to show the Caucasian race above the other races. Gould cites two main reasons to scrutinize the findings George Morton, the first reason is that he did not distinguish the difference of sex or age between the skulls. As we know from science and the works from Morton's earlier works, the difference skull sizes from different skulls is substantial. (Gould, 1978) The second reason cited by

Gould, is that Morton switched the way he measuring the skulls, mid-way through the study. He initially used mustard seed to measure the skulls, but this made a range of up to four inches difference when measuring the same skull. Morton later switched to a more standardized method of measurement with a lead shot, which resulted in a mere one inch difference when measuring he same skull. (Gould, 1978) Since Morton changed his measurement method that means that he was aware of the faulty methods of his research. We can use this to conclude that he also altered some other aspects of his data. According to Gould, Morton “ included a large subsample of the smallest heads to pull down the Indian mean, and excluded just as many small Caucasian heads to raise the mean of his own group.” (Gould, 1978) This is stated in Morton’s research as well, so we can assume that Morton that this procedure was appropriate. But, since the science community also is aware that brain size is correlated to the stature and size of the individual. We can assume that without Morton taking sex or stature into account, his data and research is basically worthless to generalize to each race.

Gould also offered some possibilities to the differences in the original data by Morton. The first: favorable inconsistencies and shifting criteria. He chose to include or exclude outliers that he knew would alter his data out of his favor. (Gould, 1978) The second reason Gould states; Morton was convinced before he began that differences in cranial capacity reflected innate mental ability. (Gould, 1978) The third was just accidental slips, Morton, apparently, reported one of the Indian means incorrectly. (Gould, 1978) Fourth possibility was convenient omissions. Morton omitted outliers that would put other

racial groups above the mean of the Caucasian group. (Gould, 1978) The fifth and last possibly, simple miscalculations. (Gould, 1978) Even with all of this, there is no indication that Morton intentionally manipulated his research, he didn't try to cover his tracks and he published all of his raw data. (Gould, 1978)

Even with this scrutiny, a more recent scientific group reviewed all of the claims made against Morton by Gould. In the paper, *Correction: The Mismeasure of Science: Stephen Jay Gould versus Samuel George Morton on Skulls and Bias*, the claim of bias against Morton is put to rest. This research showed that Morton, is his original theory was incorrect. Human variation in skull size is not racial, but rather largely a function of climate and evolution. (Lewis, 2011) These researchers also physically measured 308 Morton's collection of 670 skulls themselves, and compared it to his original data. They found that only 7 of the 308 skulls differed from Morton's original findings. (Lewis, 2011) " If Gould's hypothesis that Morton physically mismeasured some of the skulls due to racial bias were correct, we would expect the mismeasured crania to be non-randomly distributed by population." (Lewis, 2011) Since Morton's errors were random in each population, the racial bias claim made against Morton is hereby falsified.

Gould also claimed that Morton manipulated his data in his favor. According to the research done by Lewis et al, all of the errors found actually go against Morton's hypothesis. Morton did not manipulate his findings to support his hypothesis (Lewis, 2011) Overall the Lewis et al findings falsified Gould's hypothesis that Morton manipulated his results based on his own biases. (Lewis, 2011)

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In conclusion, Samuel George Morton, was a major influence in the world's thoughts of racism during his time. Although his theory was incorrect on phrenology and race being correlated with intelligence, his research has helped develop the study of human skulls. His research should not be used as a racial classification system, but rather a statistical measure to show migration of humans across the globe and the evolution of humans.

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