Teaching Race and Medicine at Columbia

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Elana Sulakshana Discussing Teaching Race and Medicine at Columbia: [video] <u>https://www.youtube.com/watch?v=eO8Y9PEhhnU</u>

Introduction

In July 1788 to celebrate the ratification of the constitution of the United, Columbia College alumni led a procession through the streets of New York carrying a banner that read "Science and Liberty mutually adorn and support each other." Columbia's president, William Samuel Johnson, professors, and students followed behind.[1] The banner and the members of the Columbia community failed to recognize that the constitution affirmed and supported the institution of slavery. A more appropriate sign would have read: "Science and the *Selective Application of* Liberty mutually adorn and support each other." Such a modified banner would have been particularly relevant because Columbia was home to a growing body of scientific knowledge in the late eighteenth and early nineteenth centuries that classified humans by their race.

This scientific knowledge was taught largely within the expanding discipline of medicine, and Columbia, at the forefront of medical knowledge and instruction, was instrumental in the development and dissemination of this knowledge. In 1767, King's College established the second medical school in the Colonies. Columbia's Board of Trustees, in affirming the decision to invest in the instruction of medicine, wrote that the school was established to "tend to the honor and reputation of this college" and also be "a public benefit to society" by "promoting the true knowledge of medicine."[2] In 1770, it became the first institution in the Colonies to confer a Doctor of Medicine (M.D.) degree. In order to keep up with demand and educate the growing numbers of young men that sought to be doctors, the New York State Board of Regents established the College of Physicians and Surgeons (P&S) in 1807. In 1814, P&S absorbed Columbia's medical students and faculty. This mission professed by Columbia's Trustees—of teaching the truth about medicine in order to promote good for mankind—continued as a central tenet of medical instruction at P&S.

In the nineteenth century, race science, which asserted the superiority of Europeans, was a crucial element in "true medical knowledge." This essay traces the changing contexts in which racial science was taught and debated, highlighting three distinct periods. In the late eighteenth century and first thirty years of the nineteenth century, this teaching was framed by the emancipation of slaves and new societal order in New York City. This essay argues that the growing prominence of race science was a response to the new free status of blacks. Lectures within the classroom at P&S—and the diffusion of these ideas beyond the medical school and into society—created and reinforced a racist ideology which was now needed to understand and justify the political and social exclusion of free blacks in a professed liberal, post-slavery, northern society. The increased visibility and professionalization of the medical field in the Americas was also important in legitimizing this racist ideology.

In the second period, approximately 1832-1865, the discussions were situated in broader sectional debates over slavery in the United States. At Columbia, doctors and scientists argued that though the African race was inferior, slavery should be abolished. They advocated colonization and only allowed medical education for black men who

would practice medicine Liberia. In the third period, the post-Civil War era through the first few decades of the twentieth century, this racist science was unmoored from slavery and it took on a life of its own. The field was changed by Darwin's theories of natural selection and evolution, but ideas of white superiority persisted, fundamentally rooted in the evidence collected and ideology formed in the earlier two periods.

The analysis that follows is based on lecture notes from P&S students in 1812-13 and 1829-32, syllabi from courses at Columbia and P&S, the work of students and professors, and textbooks. In order to trace the development of race thinking over the nineteenth century, the writings and curricula are contextualized at three levels: within the history of slavery in New York City, the development of P&S, and the national medical and anthropological discourse around race and the origin of species. The essay begins with a brief discussion of the process of emancipation in New York.

Emancipation in New York City

In the seventeenth century, New York City became known as a slave center, as the British sought to turn it into the economic hub of the colonies. Slaves physically built the city, and they also farmed the nearby agricultural land. By the end of the century, New York City had a larger black population than any other city in North America. Slavery continued to be central to the city through the 1700s and only Charleston and New Orleans were the only two North American urban areas with larger numbers of slaves. The American Revolution introduced a secular language of liberty and equality that was then utilized to critique slavery. It also provided opportunities for slaves to seize their freedom. They did this both legally, by joining the British and American armies, as well as illegally by fleeing in the midst of chaos. However, the war itself did not lead to the end of slavery in New York, given the economic importance of slaves. In the 1790s, a few factors came together to shift public opinion in favor of emancipation in New York City. The New York Manumission Society convened influential white men in opposition to slavery. Slaves had grown more restless, and the number of runaways and arson plots in New York City swelled, in tandem with slave rebellion across the Americas. In

addition, with the increased rates of European immigration to America, slaves became less important economically.[3]

In 1799, "An Act for the Gradual Abolition of Slavery" set up a long process of emancipation. This law mandated that after July 4, 1799, slaves were reclassified as indentured servants, which meant they remained in effect enslaved. Children born of enslaved mothers were to become free at the age of 28 if male and 25 if female and under the control of masters until then. The act did not address legal and civil rights, instead enforcing white paternalism and black dependency as non-citizens. In 1817, the state passed a law that granted freedom for all slaves in 1827. In the meantime, the 1821 constitution disenfranchised the majority of black men while granting universal suffrage to white men. As Leslie Harris writes, "New York State had granted black people freedom, but not equality."[4]

The Expanding Medical Sphere

As the growing population of free blacks in New York City was relegated to an unequal non-citizen status, all-white medical institutions expanded. A1797 book titled *The Present State of Medical Learning in the City of New York*, likely written by Samuel Mitchill though published anonymously, extolls the benefits of studying medicine in "a great city" such as New York. He wrote that the study of physic—referring to medicine and surgery—"must always be found in populous towns and cities." In addition to the fact that a larger population is better to study disease and engage in clinical practice, Mitchill discussed the importance of public-facing medical initiatives, such as lectures and societies, in cities. He wrote that students in cities have an "advantage" because their location, embedded in a broad medical community, allows them to "hear[] the opinions, and attend[] the practice, of such professional men as are engaged in imparting instruction as public lecturers, and administering to the infirm as public prescribers."[5] Professional societies and journals were founded in this period, and though academics and practitioners controlled these institutions, they often had a public-facing angle.

Science also played an increasingly vital role in debates over slavery and race in the courts. The 1808 case of Commissioners of the Almshouse v. Alexander Whistelo, a Black Man in New York City demonstrated how science had emerged as an authoritative voice in the shaping of the law. At its core, the case was a question of paternity, but it addressed many larger issues related to race. The courts explored guestions of racial characteristics, particularly color, and how they transferred across generations, as well as how race affected individuals and society. The medical witnesses drawn upon were considered experts on race and reproduction, as members of an emerging "scientific academy building a new intellectual order" based on the hierarchy of the races.[6] Columbia and P&S were both heavily represented at the trial. Expert witnesses affiliated with the two schools included George Anthon (professor and trustee at Columbia College), David Hosack (professor at Columbia College, who joined P&S in 1813 with the merger), Wright Post (professor of surgery at Columbia, who joined P&S in 1813), Edward Miller (professor at P&S), and Mitchill. The case unfolded in June, July, and August, so the professors must have been involved in the trial in between sessions of instruction. This involvement in the courts was part of the professionalization and growing prestige of medicine in the first half of the nineteenth century. P&S provides an apt example as to how the medical sphere thrived in this period.

P&S was chartered in 1807 in fulfillment of a law passed by the New York Legislature in 1791. The first lectures began on November 7, 1807. According to John Shrady, who wrote a history of P&S in 1903, 1811 marked the second phase in the history of the college. In that year, it was decided that P&S should merge with the Medical Department of Columbia College, given the shrinking number of students at Columbia. From 1793 – 1813, the department graduated only 35 students. From 1807 – 1810, two MDs graduated.[7] In 1811, four years after P&S opened, its first class graduated—totaling eight students. The administration just consisted of eight men, five of whom were professors: Samuel Bard, M.D (President), Vice President (Benjamin De Witt, M.D.), Professor of Anatomy, Surgery, and Physiology (J.A. Smith, M.D.), Professor of the Theory and Practice of Physic and Clinical Medicine (David Hosack, M.D.), Professor of Chemistry (William James M'Neven, M.D.), Professor of Natural History

(Samuel L. Mitchell, M.D.), Treasurer (John D. Jaques), and a Registrar (John W. Francis).[8] In order to graduate, candidates had to submit and defend a thesis on a topic of their choosing and were subsequently orally examined by the faculty on a standard set of course material.[9]

P&S was located in a small building on Pearl Street, which the College officers criticized in January 1813 as being "ineligibly situated." In agreement, the Regents approved the sale of the existing building, and later in 1813, the school moved into Number 3 Barclay Street, a former three-story tall warehouse. After the move to the new building, there was a steady increase in the number of students. In the 1814-5 session, P&S enrolled 121; in 1815-6, 148; and in 1816-7, 192. By 1817, the building had become too small for the growing number of students, and it was renovated, doubling in size. In 1820, the Regents said that the college was "in a state of rapid improvement." That year, there were more than two hundred students, and by 1822, it was noted in the yearly circular that students were moving to study at P&S from other states.[10] Examining the student registry of Columbia College Faculty of Medicine from 1812-13, of the 27 students, only six were not listed as being from New York. The non-locals came from three east coast states: Connecticut, Massachusetts, and New Jersey.[11] By the end of the 1820s, sessions, the classes had grown significantly and diversified geographically. Of 111 students registered in 1828-9, 56 were from New York City, and seven were from the south (Virginia, North Carolina, and South Carolina).[12]

A circular from 1818 lists the classes that were taught, a schedule that was likely similar to that of 1812. In the forenoon, Dr. Hosack taught Theory of Practice and Physic (9-10AM), Dr. Mott taught Principles and Practice of Surgery (10-11AM), and Dr. Post taught Anatomy, Physiology, and Surgery (11AM-12PM). In the afternoon, Dr. Mitchill taught Natural History (1-2PM), Dr. Macneven taught Chemistry and Materia Medica (5-6PM), and Dr. Hosack taught Obstetrics and the Diseases of Women and Children (4-5PM on Mondays and Thursdays). Other days included clinical practice. It was in these classrooms that ideas about race were cultivated and taught.

Race Science in the Classroom

Two debates dominated the discourse of race science at Columbia College, P&S, and nationally from the 1790s-1830s. The first was how races ought to be categorized, drawing on developing imperial knowledge of non-white populations. The second, and related, point of contention was whether humans originated from one or many species. This debate—succinctly described as monogenism versus polygenism—brought science in tension with religion. The evidence collected and utilized to answer these two questions centered on anatomical differences between humans. In identifying and analyzing these perceived differences, medical professionals fit evidence to their firm conclusion that people of European descent were intellectually superior to non-white races. Various sources are utilized in this essay to explain how race science was taught at Columbia. The evidence is primarily drawn from notes on lectures found in the student notebook collection at P&S: two lectures from the 1812-13 session and one from sometime between 1829 and 1832. Summaries of course syllabi printed in Columbia and P&S pamphlets also refer to how race science was integrated into the curriculum. Published works and public lectures by students and professors provide further information on their beliefs.

In 1794, Dr. Samuel Mitchill wrote a book detailing the syllabi of courses at Columbia College—*The Present State of Learning in the College of New York*.[13] One syllabus listed was for a class that he had created on *Economics* two years earlier in 1792. The course of study included the "classification and arrangement of natural bodies." The primary focus of 'natural bodies" is the study of the Earth, not human bodies, but the course also included facts that "form the basis of Medicine, Agriculture, and other useful arts." Though this description does not explicitly mention race, it is likely that race was included in this course according to information on other lectures by Mitchill. The course was a requirement for physic students, which referred to students studying medicine and surgery.[14]

In 1797, Mitchill's book on medical learning lists a very similar course under his role as "Professor of Chemistry and Natural History.[15] The course was also a requirement only for physic students, and non-medical students in the college "seldom [thought] it worth their while." Mitchill described his own class as teaching "fundamental truths." He added that these truths are "substantiated by *experiments*; and the subjects under consideration are elucidated by *specimens*." This sentence underscores the objectivity that these scientists sought—and thought they had achieved. They examined the natural world for evidence that would substantiate universal "truths" to fit their worldview of white supremacy.

Despite their contribution to this racist ideology, many of these thinkers in the North did not support slavery. Mitchill, for example, became an official member of the Manumission Society of New York in the mid-1790s.[16] The New York Society for Promoting the Manumission of Slaves, and Protecting Such of Them as Have Been or May Be Liberated, as the full name of the organization explains, advocated for a gradual end to slavery to New York. However, as Mitchill's lesson demonstrates, its members did not believe in racial equality. The constitution of the Manumission Society referred to Africans as being raised with "hostile prejudices and "habituated to submission." The Society denied membership to blacks and saw their role as paternalistic, acting as necessary guardians to slaves and free blacks, who were unfit to function in society.[17] Mitchill also engaged in politics, representing New York in the House of Representatives and Senate. His career reveals the overlap between the spheres of medicine and local and national politics.

John W. Francis was likely enrolled in Mitchill's courses as an undergraduate student of physic. Perhaps inspired by Mitchill's teaching on the classification of humans, he wrote his undergraduate dissertation on the "Negro" race. Francis graduated from Columba College in 1809 and received an M.D. from P&S in 1811. He was a professor at P&S from 1813-1826, trustee from 1814-1826, the registrar from 1811-1826, and a co-founder of the New York Academy of Medicine. He presented the paper, titled "A Dissertation on the Bodily and Mental Inferiority of the Negro" as an undergraduate student to the Medical and Surgical Society of the University of the State of New York on January 27, 1808. His paper was divided into three parts. In the first, Francis discussed various origin theories, though he did not argue for monogenism or

polygenism. He then identified physical differences between Europeans and Negroes. These included the shape of the forehead, size of the female buttocks and pelvis, distance between nose and mouth, size of fingers and toes, the length of Achilles tendon, and propensity to sweat. The last section affirmed the intellectual superiority of Europeans. He based his claim on the observed characteristics and professions of the black population. He wrote: "there never has appeared among the negro a single poet, a single mathematician, in a word a single character who can claim preeminence by the powers of the mind." He then cited exceptions of black men and women who were poets and orators, but ultimately dismissed them as a "trifling objection."[18] Race was not a common subject for inquiry; of a sample of 70 dissertations by P&S students from 1771 to 1857, no other students researched and wrote on race science for this required research project.[19]

These P&S students were indeed taught similar ideas of racial difference and hierarchy, though more anatomically focused and technical than those found in Francis' dissertation. An 1813 pamphlet lists the "Syllabus of the Several Courses of Lectures" delivered in the College of P&S." Of the courses described, only one specifically refers to race science: Mitchill's Natural History course. In the unit on Zoology in this course, Mitchill moved from discussing the classification of animals to that of humans. The syllabus describes how humans are divided into six races: the Caucasian or European, Hyperborean or Laplander, Mongol or Tartar, South American, Malay or Philippine, and Ethiopian or Negro. He even discussed how "the Aborigines of North America" migrated from different places and therefore are comprised of different races. Mitchill's focus was on how the races ought to be classified, which is geographically determined, though he does make a claim about origin. He said that the six races are all descendants of the "original pair." This draws on the Bible directly, supporting the monogenist view that humankind is all one race. This *Zoology* unit is preceded by *Botany* and followed by Uranology.[20] By placing this science in the category of zoology and in conversation with disciplines like botany and uranology, it legitimizes the scientific basis of the discipline.

Race science also fell under the headings of Anatomy and even Theory and Practice of Clinical Medicine at P&S in 1812-3, according to published material and student notes. The pamphlet does not refer to race science as forming part of the curriculum of those courses, which may suggest that race questions were not a central feature of the classes. But the omission of race science may actually indicate the normalization of its inclusion in the curriculum as suggested by. J.A. Smith's anatomy course. Smith delivered "A Lecture Introductory to the second Course of Anatomical Instruction" at P&S on November 11, 1808. One year later, the lecture was published in the New York Medical and Philosophical Journal and Review. In this course, race was central, and Smith began the yearly lessons with a discussion of the differences between men. The intent of the lecture was to "prove the anatomical structure of the European, whatsoever the cause, is superior" to other races. The concept of "race," at this time, did not have a well-understood or universal definition.[21] In 1808, Smith defined it as "the fact that differences do exist" rather than "an original or radical distinction" between men. He developed this idea of race over the course of his career, as he gave similar lectures through the 1840s.

Charles Drake was the author of a bound set of lecture notes titled "Lectures on Physiology, Anatomy, and Surgery as delivered in the College of Physicians and Surgeons in the City of New York in the session of 1812 and 1813." This volume includes one lecture on race science.[22] Drake took these notes in lectures taught by J.A. Smith, who served as the Professor of Anatomy, Surgery, and Physiology from 1808-1814. Drake graduated from P&S in 1811with an M.D. The notebook is also stamped twice with the name "Benjamin Drake," who graduated P&S in 1826. Though Benjamin Drake had not completed all of the required courses, Smith, who was also his professor more than ten years later, recommended to the Board of Trustees that his degree be approved because of his mastery of the material. [23] This double label indicates that these notes were passed down within families and, by extension, that the ideas were disseminated and read beyond the year they were taken. Charles Drake, furthermore, went on to practice medicine in various places: the New York Infantry in the war of 1812, New York State Prison, Bellevue Hospital, and a Yellow Fever Hospital. He was also a P&S Fellow from 1812-1835 and Trustee of P&S from 1820-35, contributing to a reinforcing cycle of knowledge.[24]

A second set of relevant class lecture notes belonged to John Taulman. Though there is no professor name indicated on this collection, it was most likely also Smith, given the nature of his argument, the language used, and the date.[25] Taulman's notes include a lecture on race on Monday, December 14, 1812, which was a period in which Smith was lecturing on race, as established through Drake's notes. The Taulman lecture, titled "On the differences observable in the human race, and their causes," is similar but not identical to the one contained in Drake's collection.

The heading of the Drake lecture is "On the Difference of Structure in the human Race and between other animals." The notes, which are impeccably penned—they were outsourced to be transcribed into their current bound notebook—are written in full sentences, as if Drake copied down the entire lecture in exact form. The notes begin by outlining the differences between the five races of humans. Humankind is "generally said" to be comprised of European, Asiatic, Tartar, Aborigine, and African races. Though Smith does not address it here, the number of races was definitely a question open to debate. In fact, Taulman's lecture notes make no mention of the Tartar race, although it refers to the other four. By 1843, J.A. Smith had dropped the Tartar and refined his classification to those four races, following the division of the continents.

The Drake lecture began by briefly listing each race and three to four characteristics skin color, stature, eyes, and hair. Smith emphasized the contrast between the European and African races, "they being the extremes of the scale." The Taulman notes only describe the contrasting characteristics of the European and the Ethiopian. Smith, as did his contemporaries, focused on the differences between the people of Europe and Africa and had less to say about the inhabitants parts of the world. This is logical given that the peoples of other areas were less relevant to American life. The population of the United States was largely European and African. Limited American imperial experience also resulted in a narrow view of the world. The focus of both lectures was on anatomical differences between the European and African: namely facial and cranial structure. Smith taught that the line drawn from the forehead to the upper jaw—known as "facial angle"—was a function of intelligence, utilizing the examples of humans, monkeys, dogs, and geese. He also ranked races within the human species, both past and present, in terms of facial angle. Greeks and Romans boast the most obtuse and Africans the most acute angles. The knowledge of Greek and Roman facial structures was drawn from ancient sculptures, an example of the excessive lengths to which these scientists went to collect evidence. In the Drake lecture, Smith proposed a correlation between the obtuse angle of the Greek and Roman statues and the great intelligence of these ancient civilizations. The Taulman lecture notes similarly argued that facial angle has often been a "test of intelligence" and is a "good criterion" for explaining difference in intelligence between species and races, though not between individuals.

A more direct indicator of intelligence was the "capacity of the cranium," a metric deduced from skull size. The two lectures claimed that Africans had a capacity of one-twelfth or one-thirteenth of the European. This Smith attributed to the fact that the African skull was an intermediary between that of the European and orangutans. This claim was supported by the location of the *foramen magnum*, a hole in the base of the cranium. Smith described this conclusion about the size and structure of African skulls as "invariable]" and would hold true for "a thousand skulls." The reference to a research method of examining thousands of skull samples suggests meticulous and comprehensive study. Smith sought to cultivate this image of systematic evidence in order to lend credibility to his conclusions.

In addition to empirical evidence collected through measuring and analyzing physical samples, Smith drew on the Bible as a source of scientific knowledge. In an 1840 book titled Select discourses on the functions of the nervous system: in opposition to phrenology, materialism, and atheism: to which is prefixed a lecture on the diversities of the human character arising from physiological peculiarities, he advocated for a thorough understanding of the Bible paired with deliberate thinking. He wrote that "enlightened piety" and "sound philosophy" must unite to "expand [] understanding,

strengthen faith, and augment...our felicity."[26] Smith, like many other doctors and scientists, relied upon Christianity in order to answer the question concerning the origin of species. Aligning with Mitchill, he said that man is "no doubt" descended from a common race because that is what the scripture "teaches us to believe." However, also like Mitchill, Smith took issue with the theorists who said all the differences between races could be attributed to climate. For him, climate was important in determining some factors, namely differences relating to skin and hair, but his lectures emphasized fundamental differences in the "bony system" that could not be explained solely via climate. In fact, he could not explain them at all, and so he did "not pretend to" know their cause. In the middle of the Taulman lecture, Smith told his students: "It is my duty as Professor of Anatomy to point out to you facts, however extraordinary, and when not able to explain them, candidly to confess my ignorance."

Smith ended his 1808 lesson on a similarly inconclusive note. While he confirmed the knowledge derived from the Bible-specifically Revelation-as being "clear and conclusive" in favor of common origin, he spent much of the second half of the introductory lecture disputing the claims of Reverend Samuel Stanhope Smith, then the president of Princeton University. Reverend Smith argued that climate was to account for all differences between races, including those of skull size and shape. Similarly to the later lectures, J.A. Smith does not propose the reason for these anatomical differences. At the end of the talk, he directed the students to "judge for [them]selves" because as he said, "far be it from me to fix the bounds of your faith." He also recognized that "different minds are satisfied with different degrees of evidence." He engaged the students to participate in the development of this race science, urging them to think for themselves and decide to what extent they believe the climate-centric theory of Reverend Smith. The question of single origin versus multiple origins is not divisive for J.A. Smith, given that he embraced the Bible with certainty. In fact, he critiqued those who propped up Revelation with additional arguments, such as Comte de Buffon with his theory on species and sexual reproduction. For J.A. Smith, Revelation was "sufficient and complete." Monogenism did not require proof beyond the word of God.

J.A. Smith and Mitchill were both committed to monogenism and did not engage with theories that opposed it, but an entire discipline existed around polygenism—and therefore in opposition to the teachings of Christianity—in the nineteenth century. This group of northern and southern anthropologists, scientists, doctors, and even politicians became known as "The American School of Anthropology." Influential men in the School included Samuel George Morton, Louis Agassiz, Josiah C. Nott, George Gliddon, and Charles Caldwell. These men believed that races had such different physical, mental, and moral faculties that they were separate species with distinct origins. [27] At Columbia, professors alluded to the polygenist theory but did not promote it nor explain it in detail.

A set of lecture notes titled "Lectures on the Theory and Practice of Medicine" taken by Benjamin Downing, who graduated P&S in 1832, includes a short lecture given by Joseph Mather Smith on race.[28] At just two pages, the lecture notes are much briefer than those from J.A. Smith's lectures, and the notes are fragments in comparison to the full sentences of Drake and Taulman. The lecture was given at P&S in the session 1829-30, 1830-1 or 1831-2, because Downing was only registered as a student at P&S in these three terms. In this period, Joseph Mather Smith served as the "Professor of the Theory and Practice of Clinical Medicine." Smith's course largely centered on how the human body functioned in healthy and diseased states. It is peculiar that a course on race classification and origin was included, given that it did not remotely address the functioning of the body or disease. It may suggest that these ideas were considered necessary, foundational knowledge for all medical students. Smith may have also believed that race had implications for treating disease.

Smith's lecture began by referring to the dispute over common stock. He did not take a stance, but instead he listed what the "Philosophers," particularly Buffon and James Cowles Prichard, argued. He did not mention by name any proponents of polygenism. Instead of dwelling on this dispute, Smith focused his lecture on the concept of race proposed by various thinkers. He outlined the divergent classifications proposed by Buffon, Johann Friedrich Blumenbach, and Georges Cuvier. Buffon conceived of five races: European, Arab, Mogul, Negro, and Hyperborean (a term that described

inhabitants of the polar regions and of eastern and central Asia). Blumenbach "superseded" this classification by replacing the three non-European and African races with Mongolian, American, and Malayan. Cuvier reduced the number to three, with just "Fair or Caucasian," "Yellow or Mongolian," and "Negro or Ethiopian." In each of these theories, there existed no dispute over Europeans and Africans being two distinct races. This is an indication of the extent to which the difference between white and black Americans was undisputed and embedded in the philosophies of these thinkers.

Smith's lecture is an exploration of a question that J.A. Smith skimmed in the lectures he gave in 1808 and 1812: how should humankind be divided into races? Joseph Mather Smith did not easily accept the division that J.A. Smith provided of five (or four) races. In this lecture, he sought to present the various proposals that circulated to answer that question, without positing an opinion on which he saw as correct. Moving beyond the division beyond white and black, these American and European thinkers debated how the world was divided geographically and racially. The conversation around how races were divided was a direct reflection of the newfound ideas that emerged from the imperial ventures of European powers. As Nancy Stepan argues, the science of human race began to develop in the eighteenth and nineteenth centuries only after Europeans had explored the entire globe, collected knowledge about the "wild" men and women that they encountered, and authenticated this information.[29] In the nineteenth century as imperial ventures thrived, new regions were discovered, and vast amounts of knowledge often in the form of travel literature accumulated, the number and classification of races was fiercely debated.

In this thrust for objectivity and rationality, these medical professionals, scientists, and anthropologists are in fact inconsistent. Their conclusion, that the "African race" was inferior, was so far ahead of their research that they created piecemeal and vague evidence to fit with their thinking. The goal was to prove difference, even though it could not be explained, as the open conclusion of J.A. Smith's lecture indicates. They built up their scientific theories on the basis that "the social and cultural indicates observed between peoples should be understood as realities of nature." [30] This ideology,

grounded in flawed science, spread beyond the scientific sphere into national political debates.

The Slavery Question

The race science taught in these classes was not confined to student notebooks and exams. The ideas that these professors imparted to students fundamentally shaped a lively public discourse on issues of slavery, race, and rights. Questions of morality—who deserved equal rights and should fulfill what roles in society—became questions of nature and science. The concept of racial inferiority shifted from the realm of the ethical and religious sphere to that of anatomy and physiology. Stepan says that in this context, the growth of the biological and human sciences in the late eighteenth century was "decisive for the racial debate."[31] Slavery and anti-slavery advocates alike adopted these ideas, using them to justify the expansion of slavery as well as the exclusion of former slaves from northern society. For those who opposed slavery on moral and religious grounds but did not believe in racial equality, this science provided justification as to why the black population ought to colonize Liberia.

In the few decades before the Civil War broke out in 1860, national questions of if and how slavery should be expanded across the Untied States divided the country geographically. Both the Northern and Southern factions drew on scientific thinking about race. Near the end of an 1843 public lecture at the Broadway Tabernacle Church on the different races of men, J. A. Smith turned to the issue of slavery. Though he had just spent the bulk of his speech resolving that the African race was less intelligent than the European, he said that their inferiority could never justify their enslavement. However, he made it clear that he was not an abolitionist, because he thought that the emancipation of all black slaves would result in a "struggle for the means of subsistence" between the white and black populations. Given their natural inferiority, the black population was "as sure to be exterminated as the sun to rise" in a race war if slaves were emancipated immediately. Interestingly, he said that there was more hope for the former slaves in the south because they were more adapted to the climate than whites, whereas in the "healthy North they must inevitably perish."[32] J.A. Smith provides an excellent example of how many in the antebellum United States supported abolition, but did not believe in equality for those of African descent. He undoubtedly opposed slavery. In addition to the 1843 speech, this is evident from his book of lectures published in 1840. In a footnote tucked away in an unrelated discussion of matter and materialism, Smith noted that when southerners make the pro-slavery argument, they omit "more than half the facts," and focus on "the number of trees which have been felled, and yards of ditch which have been dug—the state of society, as regards its improvement, religious, moral, and intellectual, its habits of feeling, and thinking, and its modes of acting, being counted for nothing!"[33] Smith used that slavery anecdote to illustrate the nature of a flawed argument. However, throughout this same book he endeavored to prove that the "Negro is inferior to the Caucasian" in intellectual faculties.

This view led Smith to adopt a stance in favor of African colonization, which he enacted as institutional policy when he assumed the presidency of P&S in 1831. Prior to this position, he had served as the president of William and Mary College in Virginia from 1814-1826. In his role as president of P&S, Smith had to confront the admission of black students. The previous president, John Watts, had admitted John Brown—a black student and former servant. Brown attended lectures in the sessions of 1830-31 and 1831-32. At the end of his second session, he sought to stand for examination in order to receive an M.D. degree, but J.A. Smith would not allow Brown to do so. In 1840, New York's Colored American, a newspaper that circulated in free black communities, reported that Smith's position was that "no diploma should be granted to a colored man, whatever might be his pretensions, unless he would sign a pledge that he would not avail himself of its benefit in any place but Liberia." J.A. Smith aligned with the mission of the American Colonization Society (ACS) to send—and cultivate as doctors—free blacks to colonize Liberia. This is a logical extension of the argument of his 1843 lecture that the presence of many free blacks in the north would lead to a race war in which the white race would triumph. To avoid this outcome, he said that free blacks should emigrate to Africa, where they originally came from. Brown would not sign the statement that he would settle in Liberia, and so he did not receive his M.D. from P&S, though the free black community in New York still granted him the title of "Doctor." [34]

Under J.A. Smith's tenure as president, at least one black student did indeed attend medical lectures with the intention of practicing medicine in Liberia. Washington W. Davis left Liberia, where his family had moved from Virginia two years prior, at the age of 17. The ACS asked Smith if Davis could attend lectures, and Smith approved his attendance with no cost or stipulations. He attended for one year—1832—and then, for unknown reasons, did not return to P&S. He remained in New York and with the financial assistance of the ACS, and studied under Dr. Edward G Ludlow, who graduated from P&S in 1823. Smith would have allowed Davis to receive a degree because he intended to return to Liberia as an ACS physician and "be useful to the people."[35] Though Brown, Smith, and a handful of other students of African descent enrolled in courses throughout the nineteenth century, it was not until 1908 that the first black student, Travis J.A. Johnson, officially graduated, according to P&S records.[36]

Post-Civil War

In the meantime, ideas surrounding slavery and race changed rapidly. In 1859, Charles Darwin published *On the Origin of Species*, which irrevocably shifted the paradigm of race science to which Mitchill, J.A. Smith, and everyone else subscribed. Darwin's book effectively settled the debate between monogenism and polygenism by substantiating the monogenist theory with an entirely novel argument. Darwin proposed that all species formed a self-sustaining organic kingdom that changed continuously across geological epochs. He worked with a time scale that stretched much further in time than that through which the monogenists and polygenists conceived of human history.[37] Though Darwin affirmed scripture in terms of supporting the one species theory, his beliefs also posed threats to Christianity.

Darwin fundamentally altered the field of race science, but its foundation on white superiority endured. Doctors and scientists continued to develop a scientific basis for a strict racial hierarchy with the European race on top, drawing on increasingly precise and detailed evidence. There were no longer mainstream debates over humankind consisting of one species or multiple species. In the second half of the nineteenth century and early twentieth century, the focus of race science shifted to an anatomical study of the cranium. Like in the early nineteenth century, various measures of the brain were thought to be corollaries for intellect. As the scientific disciplines of craniometry and phrenology gained popularity, the precision around these metrics advanced. This can be seen in an examination of anatomy textbooks published after 1859 and through the early twentieth century. The textbooks discussed were likely used at P&S.[38]

A 1902 "Applied Surgical Anatomy" textbook by George Woolsey, who was a Professor of Clinical Surgery at Cornell, discusses the racial differences marked by the brain, though it warns that these differences may "shade into each other." It lists three categories of skull shape, which correspond to the negro, the Mongolian or Esquimaux, and the European.[39] Cunningham's Textbook of Anatomy is a foundational text in the field of anatomy. It was first published in 1902 and underwent 15 editions-the most recent in 1986. Older editions make explicit ties between intelligence and the structure of the cranium. The fifth edition of the book from 1910 includes a section titled "Measurements and Indices Employed in Physical Anthropology," which elaborates on Woosley's claims. In this section, craniometry sought to deal with the cranial "features which are more or less characteristic" of various groups of mankind. It lists three categories of skull based on cranial capacity-microcephalic, mesocephalic, and megacephalic—and the corresponding races in each group. This categorization depends on the extent to which the race is considered "civilized" and intellectually developed. Precise mathematical calculations define these categories, with the listing of the "cranial capacity," calculated by filling the "cranial cavity with some suitable material" such as seeds or beads. This represents a leap in methodology and precision from J.A. Smith's claim that the African race has a brain capacity one-twelfth or one-thirteenth of the European. Cunninham's textbook specifies that Europeans have a cranial capacity over 1450 cubic centimeters, whereas African Negroes fall within 1350 to 1450 cubic centimeters.[40]

These ideas moved down the intellectual spectrum until they were established as common knowledge. Charles H. May is the author of a textbook titled *Human Anatomy, Physiology, and Hygiene: with Special Reference to the Effects of Stimulants and Narcotics for Use in Primary and Intermediate Schools.* In 1883, May received an M.D.

from P&S, where he also won prizes for clinical reporting and proficiency at examination. He went on to become a renowned ophthalmologist and the instructor and Chief of the Ophthalmology Clinic at P&S from 1890-1903. This textbook provides a simple overview of the human body and how it functions for children and young adults. The New York law mandated that students in public schools study physiology and hygiene, specifically the effects of stimulants and narcotics on the human body. The section titled "Different Parts of the Skeleton" includes the cranium and a short paragraph differentiates the shape of the *frontal bone* between dogs and cats, the Negro race, and the white races—arguing that the bone is oriented more upright from animal to the Negro race to the white race. The textbook correlates the "prominence of the forehead" with the "development of the brain," saying that those who study more have more prominent foreheads.[41] This book that was taught to many students in New York public schools and although it was not used at the medical school level, it drew on the prevailing ideas of the time. The equation of skull structure and size with intellectual capacity ran from the early nineteenth century through the twentieth century. and it moved beyond medical scientists to reach primary schools and therefore all of society.

Conclusion

This essay traces how racial science was taught at Columbia and P&S from the late 1790s to the early 1900s in order to show that there was not a static approach to the discipline. However, the fundamental thread of white superiority and black inferiority, primarily intellectual, persisted throughout. This shaped how doctors and professors researched, taught, and understood the world throughout the century, in the contexts of emancipation in New York City, sectional debates over slavery's fate in the United States, and the post-Civil War era. Race science responded to the demands raised by the political sphere in each of these circumstances.

Columbia was at the forefront of medical knowledge in the colonies and, with the incorporation of P&S, continued to be one of the premier institutions of medical learning throughout the century. Mitchill, J.A. Smith, and Joseph Mather Smith were three

prominent, well-respected doctors and members of society. The lectures given in the classrooms at Columbia College and then P&S on race had far-reaching implications, as the ideas filtered into society through public-facing medical initiatives, the courtrooms, and the engagement of these professors in politics. They also reached many students, who graduated and went on to practice medicine and engage in other activities, some of which likely related to slavery and politics. Though these particular lessons are not taught to students in the medical school today, as an institution Columbia has not reconciled its recent and not so recent past in which these insidious theories of racial hierarchy were researched, developed, and taught.

Endnotes

[1] William Duer, *Reminiscences of an Old New Yorker* (New York: W. L. Andrews, 1867), 64.

[2] Shrady, John. *The College of Physicians and Surgeons, New York, and Its Founders, Officers, Instructors, Benifactors and Alumni: A History* (New York: Lewis Publishing Co., 1903), 15.

[3] Leslie M. Harris, *In the Shadow of Slavery: African Americans in New York City, 1626-1863*, Historical Studies of Urban America (Chicago: University of Chicago Press, 2003).

[4] Ibid.

[5] Samuel Mitchill, *The Present State of Medical Learning in the City of New York* (New York: T. and J. Swords, 1797), 3-4. The online versions of this book note that the author is Professor Mitchill, but the physical version that I examined in Columbia's Rare Book and Manuscript Library did not have an author.

[6] Craig Steven Wilder, *Ebony & Ivy: Race, Slavery, and the Troubled History of America's Universities*, First U.S. edition (New York: Bloomsbury Press, 2013), 212.

[7] Shrady, *The College of Physicians and Surgeons, New York, and Its Founders, Officers, Instructors, Benifactors and Alumni: A History*, 53. It is unclear why Columbia's Department of Medicine had so few students, but it may have had something to do with the emergence of pure medical colleges like P&S.

[8] Catalogue of the Alumni, Officers and Fellows, 1807-1880 [College of Physicians and Surgeons] (New York: Bradstreet Press, 1880).

[9] Shrady, The College of Physicians and Surgeons, New York, and Its Founders, Officers, Instructors, Benifactors and Alumni: A History, 35-6.

[10] Ibid., 54-8.

[11] Columbia College Faculty of Medicine 1791 – 1813 Student Register, Augustus C. Long Health Sciences Library Archives and Special Collections.

[12] P&S Student Records, 1816-1919, Augustus C. Long Health Sciences Library Archives and Special Collections.

[13] Again, the online versions of this book note that the author is Professor Mitchill, but the physical version that I examined in Columbia's Rare Book and Manuscript Library did not have an author.

[14] Samuel Mitchill, *The Present State of Learning in the College of New York* (New York: T. and J. Swords, 1794), 8.

[15] Ibid., 6.

[16] Philip Barnard, Mark Kamrath, and Stephen Shapiro, eds., *Revising Charles Brockden Brown: Culture, Politics, and Sexuality in the Early Republic*, 1st ed (Knoxville: University of Tennessee Press, 2004) 156.

[17] Foner, Eric. "Columbia and Slavery: A Preliminary Report" (October 2015), 12.

[18] John W. Francis, "A Dissertation on the Bodily and Mental Inferiority of the Negro" 1808, John W. Francis Papers, New York Public Library. I did not examine the entire document myself, instead relying on archival notes from Professor Foner and an image of the first page.

[19] This sample of dissertations was found in the Digital Collections of the Augustus C. Long Health Sciences Library Archives and Special Collections here: http://libraryarchives.cumc.columbia.edu/digital-collections-columbia-university-health-scienceschools.

[20] John W. Francis, *Historical Sketch of the Origin, Progress, and Present State of the College of Physicians and Surgeons of the University of New York* (New York: C. S. Van Winkle, 1813), 147.

[21] Winthrop D. Jordan, *White over Black: American Attitudes toward the Negro, 1550-1812*, 2nd ed (Chapel Hill: University of North Carolina Press, 2012), 51.

[22] Drake, Charles, "Lectures on Physiology, Anatomy, and Surgery as delivered in the College of Physicians and Surgeons in the City of New York in the session of 1812 and 1813." Student Notebook Collection, Augustus C. Long Health Sciences Library Archives and Special Collections.

[23] John Augustine Smith, "Letter from John Augustine Smith to the Board of Trustees of P&S" 1826, College of Physicians and Surgeons manuscript collection, 1755-1962, Augustus C. Long Health Sciences Library Archives and Special Collections.

[24] Catalogue of the Alumni, Officers and Fellows, 1807-1880 (College of Physicians and Surgeons).

[25] Taulman, John, "Volume One on Anatomy and Surgery." Student Notebook Collection, Augustus C. Long Health Sciences Library Archives and Special Collections.

[26] John Augustine Smith, Select Discourses on the Functions of the Nervous System: In Opposition to Phrenology, Materialism, and Atheism : To Which Is Prefixed a Lecture on the Diversities of the Human Character Arising from Physiological Peculiarities (New York: Appleton, 1840), 90.

[27] William Ragan Stanton, *The Leopard's Spots: Scientific Attitudes Toward Race in America, 1815-59* (Chicago: University of Chicago Press, 1982).

[28] Downing, Benjamin, "Lectures on the Theory and Practice of Medicine." Student Notebook Collection, Augustus C. Long Health Sciences Library Archives and Special Collections.

[29] Stepan, Nancy. *The Idea of Race in Science: Great Britain, 1800-1960.* (Hamden, Conn: Archon Books, 1982), xiii.

[30] Ibid., xx.

[31] Stepan, The Idea of Race in Science: Great Britain, 1800-1960, xiii.

[32] Charles Lyell and John Augustine Smith, *Lectures on Geology Delivered at the Broadway Tabernacle in the City of New York* (New York: Greeley & McElrath, 1843), 54.

[33] John Augustine Smith, Select Discourses on the Functions of the Nervous System: In Opposition to Phrenology, Materialism, and Atheism : To Which Is Prefixed a Lecture on the Diversities of the Human Character Arising from Physiological Peculiarities, 165-6.

[34] Russell Irvine, "Pride and Prejudice," *The College of Physicians and Surgeons of Columbia University*, Winter 2000, 14.

[35] Irvine, "Pride and Prejudice," 15.

[36] Irvine, "Pride and Prejudice," 16.

[37] Stanton, *The Leopard's Spots: Scientific Attitudes Toward Race in America, 1815-59,* 186.

[38] The textbook dataset that I examined was solely Anatomy textbooks that were contributed to the Medical Heritage Library digitization project by the Augustus C. Long Health Sciences Library in 2010-11. Thus, it is likely, though not certain, that these books were used in classrooms at P&S. They may also be related to P&S in another way, such as the Charles H. May book. Accessed here: https://archive.org/details/columbialongmhl.

[39] George Woolsey, Applied Surgical Anatomy, Regionally Presented, for the Use of Students and Practitioners of Medicine (New York: Philadelphia, Lea brothers & Co, 1902).

[40] D.J. Cunningham, *Cunningham's Text-Book of Anatomy* (New York: William Wood & Company, 1918), 284.

[41] Charles H. May, Anatomy Physiology and Hygiene: With Special Reference to the Effects of Stimulants and Narcotics, for Use in Primary and Intermediate Schools (New York: William Wood & Company, 1896).

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