REASSESSING THE ACADEMIC RECEPTION OF MOSES

WHARTON YOUNG'S NEUROSCIENCE CONTRIBUTIONS

by

DAVID MARTIN RAPHAEL HARRIS

(Under the Direction of Stephen Mihm)

ABSTRACT

This thesis examines the institutional factors that shaped the academic reception of Professor Moses Wharton Young's neuroscience contributions, challenging the prevailing narrative that attributes his scholarly neglect solely to "academic racism." While acknowledging the undeniable impact of racial discrimination—including documented instances of hotel accommodation denials and broader societal prejudice—this work argues for a more nuanced understanding of Young's academic legacy. Through careful analysis of historical records, institutional contexts, and the specific challenges facing Howard University's Medical Department, this study reveals that Young's exclusion from research resources stemmed from multiple interconnected factors beyond race alone.

Despite these obstacles, Young made notable contributions to neuroscience, particularly his World War II research on blast injuries that gained recognition from the U.S. Government and generated academic citations. This evidence contradicts claims of universal neglect and demonstrates that his work received acknowledgment when institutional barriers were overcome. By providing this balanced perspective, the thesis contributes to a more sophisticated understanding of how racial bias intersected with institutional, financial, and contextual factors to shape the careers of Black American scholars in the early-to-mid twentieth century.

INDEX WORDS: Twentieth-Century United States, M. Wharton Young, Flexner Report, General Education Board, Howard University, Unions, Neuroanatomy

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DEDICATION

I owe a special debt of gratitude to Kenneth R. Manning of Cambridge, Massachusetts, who shared his immense archive of science and medicine history with me in August 2003. Manning illuminated a world I didn't know existed, marking the origins of my research. Thanks.

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CHAPTER 1

INTRODUCTION

This work critically examines the assertion that 'academic racism' was the primary factor in Professor Moses Wharton Young's neuroscience contributions,[1] as posited by Heywood's biographical account,[2] which draws on Winston's notion of Black American,[3] scholars as "invisible men."[4] While Heywood argues that Young's research was systematically neglected due to racial bias—pointing to broader societal discrimination, such as Young being denied[5] hotel accommodations—a closer analysis of his exclusion from research resources at Howard University, reveals a more nuanced picture. Factors beyond race, including the quality, scope, and institutional context of Young's scholarship, played significant roles in shaping the reception of his work. Despite these challenges, Young made notable contributions to neuroscience, particularly during World War II (WWII), and his research was not universally overlooked, as evidenced by its recognition from the U.S. Pentagon and academic citations. By challenging the oversimplified narrative of neglect solely due to 'academic racism' this work provides a nuanced perspective on the interplay between racial bias and other determinants shaping Young's academic legacy.

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[1]Young, Moses Wharton. "Mechanics of Blast Injuries." *War Medicine.* August, (1945). vol 8, pp. 73 – 81.

[2]Heywood, P. "'Academic racism' and the neglected scholarship of the Anatomist M. Wharton Young, MD, Ph.D. (1904–1986). Journal of Medical Biography." (2018); 26. 1. pp 22-29

[3]Societal, economic, political and legal use of OMB (U.S. Office of Management and Budget) terms "Black" or "African American" remain intact with the same basic definition to categorize darker skin-tone persons with African ancestry in the U.S. There was public discussion about collecting data related to descent from persons who were enslaved in the United States (with various proposed terms like "American Descendants of Slavery," "American Freedmen," etc.), but OMB decided not to disaggregate the "Black" or "African American" category in this way. See "Revisions to OMB's Statistical Policy Directive No. 15: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity." Federal Register. Vol. 89, 22182. No. 62. Friday, March 29. (2024).

[4]Winston, Michael R. "Through the back door: Academic racism and the Negro scholar in historical perspective." Daedalus (1971): pp. 678-719.

[5]Young v. Albert Pick Hotels, 375 F.2d 331, 126 U.S. App. D.C. 155 (D.C. Cir. 1967). Young v. Albert Pick Hotels, 320 F.2d 719, 115 U.S. App. D.C. 400 (D.C. Cir. 1963). Young v. Pick Hotels-Washington Corporation, 420 F.2d 247 (D.C. Cir. 1969).

Historical Background

Young was born October 24th 1904 in Spartanburg, South Carolina. His father, Frank Young, a tailor by trade, commuted between South Carolina and his shop in St. Louis, Missouri. Young's mother, Lillie Reid Young was an Elementary School Teacher struck by Tuberculosis to which she succumbed not long after Young's third birthday. Her mother Cornelia Reid (Young's maternal grandmother) was a former slave. Cornelia single-handedly raised Young along with his two elder siblings, Harold[6] and Weldon.[7] Like his mother, Young obtained his High School Diploma in 1922 at Claflin College before moving on to Howard University for his Bachelor of Science degree. As an undergrad at Howard, Young took classes taught by Ernest E. Just, a distinguished scientist–also from South Carolina–and whose work in biological cell division was recognized by German scholars.[8] In 1926, the same year Young completed his undergraduate studies, Howard University stood as a beacon for educating Black elites in America. W.E.B. DuBois known for his book, "The Talented Tenth,"[9] aptly described Howard as "the largest Negro university in the United States,"[10] where "the best of this race … may guide the mass away from the contamination and death of the worst."[11] However, this concept was not solely crafted by DuBois and the notion of an educated Black elite was propagated by others including U.S. President Abraham Lincoln.

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[6]Mooney, Amy, M. "Woodard's Studios and the Delivery of Black Modern Subjectivity" (Photos of Style and Dignity). pp. 212-231. In Beyond the Face: New Perspectives on Portraiture, edited by Wendy Wick Reaves. National Portrait Gallery, Smithsonian Institution, (2018). Notes: Harold E. Young became a pioneering Photographer at Woodard's. pp. 217.

[7]Young, Frank Weldon. The 30's Donnybrook Decade in St Louis Public School Power Plants: A Geechee Mavericks Quest in a Jim Crow City. Nathan B. Young Historic Memorial. 1984.Moses Young's brother, Weldon, dedicated his book to "Cornelia Reid, my ex-slave maternal grandmother, who undertook the arduous task of rearing me and my two younger brothers after my mother died..."

[8]Byrnes, W. Malcolm. "Ernest Everett Just, Johannes Holtfreter, and the origin of certain concepts in embryo morphogenesis." Molecular Reproduction and Development: Incorporating Gamete Research 76, no. 10 (2009): 912-921.

[9]Du Bois, William Edward Burghardt. The Talented Tenth. New York, NY: James Pott and Company, 1903.

[10]Du Bois, William Edward Burghardt. Negroes in College. The Nation, Volume 122, No. 3165. (1926). pp 228-230

[11]DuBois (1903).

In his final speech on April 11, 1865, Abraham Lincoln proposed voting rights for "the very intelligent [colored man], and on those who serve our cause as soldiers,"[12] which would have enfranchised about 10-11% of Black Americans, primarily free Black men and soldiers.[13] This selective approach aimed to grant political rights to a small, educated segment of the Black population while excluding most recently freed slaves, preceding the "talented tenth" concept later popularized by Du Bois.[14,15] After Lincoln's assassination, his Secretary of War, Edwin M. Stanton appointed General Oliver Otis Howard to implement the Freedmen's Bureau Act of 1865, providing education and medical care to the formerly enslaved.[16] By 1869, General Howard steered construction of a building for Howard's Medical Department and Freedmen's Hospital on the university's campus for training Black physicians and addressing Black American healthcare needs in the District.[17] However, forty-one years later, following Abraham Flexner's assessment of the nation's medical schools, there was no guarantee Howard's Medical School nor any of the six other Black Medical schools would survive.[18,19] Flexner himself stated that, "it appears, then, that the country needs fewer and better doctors; and that the way to get

[12]Lincoln, Abraham. The Speeches of Abraham Lincoln. Chesterfield society, 1908. "Last Public address." April 11th 1865. pp. 412.

[13]United States Census Office. A Century of Population Growth from the First Census of the United States to the Twelfth, 1790-1900. Vol. 900. U.S. Govt Printing Office. (1909). According to US Census Bureau the total Black population in 1860 was 4,441,839, while the number of free Blacks was about 488,070 (calculated by subtracting slave population 3,953,760 from total Black population). The number of free Blacks, 488,070 divided by total Black population, 4,441,839, is 10.9%.

[14]DuBois (1903).

[15]Gates, Henry Louis. "Who Really Invented the 'Talented Tenth'." The Root. February 18 (2013). Notes; "a month after Lincoln's 1865 speech, the Black Republican newspaper in New Orleans foreshadowed the concept of the 'talented tenth' in an editorial it published as early as May 18, when it noted that "the [black] poor … are nine-tenths of the colored population."

[16]Howard, Oliver Otis. Autobiography of Oliver Otis Howard, Major-General, United States Army. Vol. 1. New York: The Baker & Taylor, 1908, p. 207.

[17]Dyson, Walter, "Founding of the School of Medicine of Howard University 1868-1873" (1929). Howard University. Studies in History. Published under the direction of the Department of History, General Publications. Number 10. November 1929.

[18]Epps Jr, Charles H. "Perspectives from the historic African American medical institutions." Clinical Orthopaedics and Related Research (1976-2007) 362 (1999): pp. 95-101. Notes; Following the decades post-Civil War, more than a dozen Black medical schools were founded as proprietary or church-affiliated institutions, but only two survived the 1910 Flexner Report.

[19]Harley, Earl H. "The forgotten history of defunct black medical schools in the 19th and 20th centuries and the impact of the Flexner Report." Journal of the National Medical Association. Vol. 98, no. 9 (2006): pp. 1425-1429. Notes; As many as 14 black medical schools existed in the late 19th century. In 1910, when Flexner wrote his report, only seven such schools had survived. Flexner further wrote, "Of the seven medical schools for negroes in the United States, five are at this moment in no position to make any contribution of value …" And by 1910, only two (Howard and Meharry) had survived.

them better is to produce fewer."[20] In his assessment, only Howard's Medical School in Washington, D.C. and Meharry's Medical College in Nashville, Tennessee met the standards for Black medical education. While Flexner's assessment was relatively positive compared to other institutions, he identified specific laboratory deficiencies that would plague Howard for years.

The laboratory space problems at Howard University Medical Department were first formally documented in the 1910 Flexner Report. It noted that "Howard lacked an organized museum for pathologic specimens,"[21] indicating inadequate space for essential medical education materials. The broader context of laboratory needs was established by Flexner's emphasis on scientific medicine. He "stressed the role of science in medicine and the function of the physician as a scientist. To inspire students to think creatively, he advised faculty involvement in research."[22] This scientific focus required adequate laboratory facilities, which Howard clearly lacked. The financial foundation underlying these laboratory problems was evident from the start. "The school relied essentially on student fees and a small annual federal grant for income, which scarcely covered expenses,"[23] making laboratory improvements financially impossible. As enrollment declined due to stricter admission requirements, the laboratory situation worsened. Howard Medical School Secretary-Treasurer William C. McNeill, (1908-1920) was already making great sacrifices to avoid annual deficits by underpaying the faculty and scrupulously minimizing educational expenditures.[24]

[20]Flexner, Abraham. "Medical education in the United States and Canada. From the Carnegie Foundation for the Advancement of Teaching." Bulletin Number Four, 1910. Bulletin World Health Organization. (2002): 80 (7). pp. 594-602.
[21]Epps, Howard R. "The Howard University Medical Department in the Flexner era: 1910-1929." Journal of the National Medical Association 81, no. 8 (1989): pp. 885-911.
[22]Epps, Howard R. (1989). pp. 888.
[23]Epps, Howard H. (1989). pp. 893
[24]Epps, Howard H. (1989). pp. 893

Howard Medical School Dean Balloch (1908-1928) identified laboratory deficiencies as central to the school's problems, noting it was "a disservice to the faculty to pay them so poorly and to furnish them with inadequate equipment and supplies."[25] In 1911, when Howard University President Thirkield (1906-1912) appealed to Andrew Carnegie for laboratory funding, it was denied. Thirkield desperately sought support from the General Education Board, explaining in 1912 that while it had "abundant material to explore the 'many problems of interest with the colored race that call for research work,'" it lacked funds for investigators.[26] The crisis reached such severity that in 1913, faculty approved a 10% salary reduction to fund laboratory facilities, literally paying from their own wages to maintain basic operations. The 1919 Council on Medical Education inspection documented the full extent of the laboratory crisis, finding facilities "seriously cramped" and the building structurally unsound with "iron braces having been inserted here and there to prevent it from falling to pieces."[27] Recovery began slowly with a 1920 General Education Board grant of $250,000 for faculty salaries, followed by a 1925 federal grant of $370,000 for a new medical building—though Howard still had to raise $130,000 for equipment. However, even with the 1928 completion of the new medical building, with its "ample and luxurious" laboratories, the space crisis that plagued the institution for nearly two decades was still not resolved.[28] The laboratory space crisis only served as a microcosm of Howard's broader challenges during this period—combining infrastructure decay, financial constraints, and the extraordinary dedication of faculty who maintained educational excellence despite seemingly insurmountable obstacles.

[25]Epps, Howard H. (1989). pp. 893
[26]Epps, Howard H. (1989). pp. 898
[27]Epps, Howard H. (1989). pp. 901-902
[28]Epps, Howard H. (1989). pp. 906

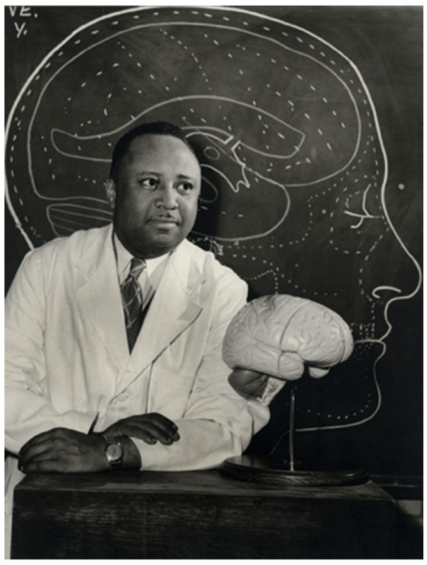

Figure 1. Moses Wharton Young (undated). Scurlock Studio Records, Archives Center, National Museum of Am. Hist, Smithsonian.

Figure 2. Moses Wharton Young (undated). The Moorland Spingarn Research Center, Manuscripts Archive, Howard University.

CHAPTER 2

INDIVIDUAL MASTERY AMIDST INSTITUTIONAL CRISIS

During this period of institutional struggle, Howard University Medical School continued to produce exceptional graduates who would eventually contribute to its transformation. Young, who completed his undergraduate degree in 1926, exemplified how individual excellence persisted despite the challenging conditions. Young went to Howard's Medical School and distinguished himself as an outstanding student, becoming Class Valedictorian and President of the Kappa Pi Medical Honor Society. While in his senior year, he was appointed by Medical School Dean Numa P.G. Adams as a paid ($400) Embryology Instructor for the 1929-1930 academic year, working alongside Professor Just from the Zoology Department. Young finished his Medical Degree in June 1930 and from 1930-1931 interned at Freedmen's Hospital. Getting into a medical internship–even at the same institution–was no small feat for Black students given the tiny number of accredited hospitals open to colored trainees,[29] and "no matter how well qualified Negro applicants for internships were, there was the likelihood of being rejected because of their race."[30] After completing his internship and venturing to St. Louis for his residency, Young took the National Medical Board Examinations for Missouri, Illinois, and Kansas in June 1931. This experience provided a stark revelation about Howard's educational limitations during its crisis period. Young found that in spite of his top ranking at Howard, he "lacked basic and clinical science knowledge." He later reflected: "It was this realization and the embarrassing experiences of these Medical Board Examinations that turned my interests toward the need for well-trained and efficient medical teachers."[31] This personal experience illuminated

[29]Freedmen's Hospital was the only hospital for Blacks within a fifty-mile radius of the Washington D.C. metro area.

[30]Morais, Herbert Montfort. "The History of the Afro-American in Medicine." (1976). International Library of Afro-American Life and History. The Publishers Agency Inc. Cornwell Heights, Pennsylvania. pp. 92

[31]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..." Manuscript Division, Moorland-Spingarn Research Center, Howard University. A Reply to Recommendations for My Dismissal from the Medical Faculty of Howard University as Previously made by the Dean and Vice-Dean of Same.

the broader institutional challenges Howard faced during the laboratory crisis years. Despite the faculty's heroic efforts to maintain "surprisingly excellent" instruction, the inadequate facilities and resources had real consequences for student preparation.

In August 1932, Anatomy Department Chair, Roscoe McKinney, offered Young a position for the second time. This offer included a two-year General Education Board fellowship for graduate study—the same organization that had been supporting Howard's institutional recovery. John D. Rockefeller had set up the General Education Board in 1902 without respect to 'race' and fellowships became available to Blacks for doctoral degrees in science.[32,33] McKinney extended this offer based on the recommendation by Howard's new President Mordecai Johnson. In a letter to Robert A. Lambert of the General Education Board, Johnson wrote that, "Dr. Moses Young of 1435 North Pendleton Avenue, St Louis, Missouri, be appointed General Education Board Fellow in Anatomy for a period of two years with a stipend of $2000 per year with the understanding that after the completion of such period of study he will accept a suitable teaching position as teacher on the faculty of the School of Medicine in Howard University."[34] Young accepted and went to the University of Michigan to study the comparative anatomy of the nervous system under pioneers G. Carl Huber and Elizabeth C. Crosby. Upon completion of his Ph.D. in 1934, illustrations from Young's dissertation were included in Kapper, Crosby &

[32]Winston (1971). "Negro college faculties were more isolated socially, but since no Negro graduate school offered a Ph.D. prior to 1958, they were trained in 'mainstream' universities." pp 717.

[33]General Education Board: "Purpose and Program," Family Records, Rockefeller Boards, GEB, III 2 O, Box 15, Folder 145. Rockefeller Archive Center, 15 Dayton Ave, Sleepy Hollow, NY 10591. Notes: The General Education Board began in 1902 and incorporated in 1903 to foster "the promotion of education within the United States of America, without distinction of race, sex, or creed."

[34]Mordecai W. Letter to Lambert, Robert A. regarding Young's recommendation for Rockefeller Foundation Fellowship application. August 29, 1932. General Education Board Early Southern Program Archive. District of Columbia. Folders. 260–271. Roll # 21. Scholarly Resources Inc. (2003). Notes: Young applied for Rockefeller Fellowship to study for a Ph.D. in Neuroanatomy at the University of Michigan. June 30th 1932.

Huber's authoritative text[35] and subsequent anatomy texts,[36,37] representing notable recognition for his seminal work on the neuroanatomy of the rabbit telencephalon. This happens to be one of the first pieces of evidence that refutes Heywood's 'academic racism'[38] claim. Because Young received notable recognition for his seminal work on the neuroanatomy of the rabbit telencephalon. Despite acknowledging this work[39] as his 'magnum opus' with 119 citations "between 1945 and 1979,"[40] Heywood's only concession that Young received recognition–in spite of racial barriers–was attributed to supervision by Crosby and Huber,[41] whose European-American ancestry supposedly legitimized Young's achievements.

In Winter 1933, while Young was completing his Ph.D. at Michigan, Dean Numa P.G. Adams (1929-1940) promised him "systematic advancement in rank and salary to $6000 per year" for his return to "serve on the Medical School faculty."[42] Young returned as an instructor in neuroanatomy on July 1, 1934—just six years after the completion of Howard's new medical building with its "ample and luxurious" laboratories. However, compared to the University of Michigan,[43] Young quickly became frustrated by the meager resources in Howard's Anatomy department, particularly the neuroanatomical slides and departmental funds for purchasing

[35]Ariëns Kappers, C. U. (Cornelius Ubbo), 1877-1946; Huber, G. Carl (Gotthelf Carl), 1865-1934; Crosby, Elizabeth Caroline, 1888-1983. The Comparative Anatomy of the Nervous System of Vertebrates, Including Man: Macmillan Publishing Company, New York. Volume Vol. 1. (1936). Volume Vol. 2. (1936). For Young's contributions see text figure 612; also pp. 1405, 1406, 1408, 1413, 1425, 1435, 1437, 1442, 1464, 1466, 1516, and 1733.

[36]Elliott HC. Textbook of Neuroanatomy. JB Lippincott Company, Philadelphia. 2nd Edition. 1969.

[37]Anderson J.E. Grant's Atlas of Anatomy. Williams & Wilkins, Baltimore. 8th Edition. 1983. See 7-162 Semicircular Canals ..

[38]Heywood, P. (2018). ''Academic racism'' pp 22

[39]Young MW. The nuclear pattern and fiber connections of the non-cortical centers of the telencephalon of the rabbit (Lepus cuniculus). Journal of Comparative Neurology 1936; 65: 295–401.

[40]Heywood, P. (2018). "Academic racism." pp. 23

[41]Guild, Stacy R. "G. Carl Huber 1865–1934. In Memoriam." The Anatomical Record 62, no. 2 (1935): pp. 1-6. Huber's parents were German and Swiss missionaries working in the British Empire (India), where he was born. Crosby was born and grew up in Michigan.

[42]Adams, Numa PG. Letter to Young, Moses Wharton regarding offer to return to Howard Medical School as an Instructor after completion of Rockefeller Foundation Fellowship. January, 1933. General Education Board Early Southern Program Archive. District of Columbia. Folders. 260–271. Roll # 21. Scholarly Resources Inc. (2003).

[43]Markel H. The University of Michigan Medical School, 1850-2000: an Example Worthy of Imitation. Journal of the American Medical Association. (2000);283: pp. 915-920. Notes; "Black medical schools find it difficult to compete with well-funded majority universities with a long-standing commitment to train African Americans, such as the University of Michigan."

research equipment. This experience highlighted that even with completion of the new medical building in 1928, the space crisis that plagued the institution for nearly two decades was not resolved and Howard still faced challenges in matching the research infrastructure of well-established institutions. Young briefly returned to Ann Arbor for the summer to take a Microscopic Techniques course before returning to Howard for the fall. Still in his early twenties, Young intended to transfer the latest insights and skills acquired at Michigan toward Howard's Medical students.

Figure 3. The Old Medical School building completed in 1928.

Institutional Conflict and Departmental Machination

Back at Howard and less than two weeks into the fall semester (1934), Young clashed with Roscoe McKinney (Anatomy Department Chair, 1930-1947).[44] The conflict between Young and McKinney at Howard University Medical School represents a classic case of institutional resistance to reform, complicated by personal animus, antagonism and class power dynamics. From Young's first days as a faculty member in 1934, McKinney obstructed and marginalized Young's research. This happens to be the second body of evidence that refutes Heywood's 'academic racism' argument because it shows how Young's access to research resources were curtailed by McKinney–a Black scholar. Heywood's analysis of "Young's relationship with Howard University"[45] faculty, instead focus on Young's conflict with Montague Cobb (Anatomy Department Chair, 1947-1969),[46] about incidents in 1953 and 1966 respectively. But Cobb was not the Anatomy Chair in the period that led up to charges against Young in 1939 nor was he Chair in the period that led to Young's most credible contribution to neuroscience in 1945. Young's 1945 article on blast mechanics is central to Heywood's 'academic racism' argument. Yet, Heywood's analysis made no mention of McKinney–who was both Anatomy Chair and Vice Dean between 1944 and 1946 when Young's paper was published–and Anatomy Chair in 1934, leading up to Young's charges in 1939. This work argues that Heywood's 'academic racism' allegation is limited and omits any consideration of intersectional analysis.[47] In this case, marginalization of Young's work originated from self-identified Black colleagues at a majority

[44]Manning, Kenneth R. "McKinney, Roscoe Lewis (1900-1978), educator and anatomist". February (2000). American National Biography.

[45]Heywood, P. (2018). "Academic Racism." pp. 26

[46]Rankin-Hill, Lesley M., and Michael L. Blakey. "W. Montague Cobb (1904–1990): Physical Anthropologist, Anatomist, and activist." American Anthropologist. 96, no. 1 (1994): pp. 74-96. And; Rankin-Hill, Lesley M., and Michael L. Blakey. "William Montague Cobb (1904–1990): Obituary." American Journal of Physical Anthropology. (1993): 92. pp. 545-548.

[47]Cole, Elizabeth R., and Safiya R. Omari. "Race, Class and the dilemmas of upward mobility for African Americans." Journal of Social Issues 59, no. 4 (2003): pp. 785-802.

Black institution. The interplay between personal ambition, faculty union politics, and university administrative power structures cannot be ignored when examining why Young's work was dismissed, allegedly due to 'academic racism.'

Limited research resources, heavy teaching loads, and departmental conflict with McKinney naturally impacted Young's research productivity and recognition. Young identified one of the early pivotal experiences that set the tone for their troubled relationship. When Young began teaching as a newly minted instructor in fall 1934, he sought laboratory space to continue his research from Michigan. However, now back at Howard, McKinney reneged on a promise to provide laboratory space for Young's research. According to Young, "When I asked if I might make the necessary changes in the 3rd floor lecture room to convert it into a laboratory for animal experimentation and technique, I was told that while it had been promised to me several months ago, he had decided to give this room to the department of Physiology instead."[48] McKinney's resistance to Young's initiatives appeared rooted in professional jealousy. Young observed: "If there were causes other than petty jealousy and a desire to throttle all departmental progress to his own pace, I do not know of them."[49] This assessment gains credibility from Young's documentation of McKinney's pattern of delaying or blocking improvements while contributing little himself. In a letter to the Dean, Young reports:

> "I do not have even an ordinary kitchen sink. There is not a single shelf on the wall. These are indisputable facts and my constant efforts for over five years to get the room altered have been of no avail. However, McKinney has put two modern sinks with drain boards in his laboratory. He has built in a brick wall partition, installed a sliding door, and made expenditures of over a thousand dollars on repairs and equipment for his laboratory. He has, however, produced no original research during the ten years he has been here–not even a preliminary report."[50,51]

[48]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..." pp 3

[49]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..." pp 3

[50]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation…" pp 15

[51]From all archival searches on McKinney's total publications, Young would still be correct today. Outside his Ph.D. advised work at the University of Chicago, McKinney had produced no original research. By contrast, Young's career culminated in over eighty publications outside his Ph.D. advised work. See "Publications by Moses Wharton Young (1934-1982)."

At this point, Young's patience had worn thin and he was more than eager to get on with his research.

A report from Howard Medical School Dean Joseph L. Johnson (1946-1955) on General Education Board Research Fund allotments, revealed that McKinney received the second highest allocation–in the Anatomy Department–for research he never completed. Young was allocated $1250.00, while McKinney and Montague Cobb were allocated $1438.85 and $1620.00 respectively. Dean Johnson wrote that, "it is impossible to tell from requisitions signed by the head of the department [McKinney] which division or individuals in the department are actually carrying on research."[52] Young's attempts to maintain professional courtesy despite these provocations are evident throughout his archival papers. He consistently framed his objections in terms of departmental efficiency and student benefit rather than personal grievance. However, the accumulation of incidents suggests a systematic effort by McKinney to undermine Young's effectiveness and authority. The conflict ultimately reflected deeper institutional issues beyond personality clashes. As Young noted: "originality of thought and individual viewpoint are necessary accompaniments of scientific research and discovery. Such qualities should be encouraged rather than condemned in our institutions."[53] The tension between Young's drive for excellence and McKinney's defensive territoriality exemplifies the challenges faced by reform-minded faculty in established academic hierarchies.

Young was in a hostile environment and there were many reasons he couldn't back away from Howard. He had given up his private practice; he accepted $4000 from the General Education Board for his neuroanatomical training and most of all he was obligated by a teaching

[52]Johnson, Joseph L. Letter to Drew, Charles Richard, regarding research expenditure from the General Education Board Research Fund. October 31, 1946. General Education Board Early Southern Program Archive. District of Columbia. Folders. 260–271. Roll # 21. Scholarly Resources Inc. (2003).

[53]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..." pp 3

contract. Throughout the Medical School, McKinney was known as 'Mac'[54] and 'Shortie Mac'[55] by faculty, students and staff. Like Young, he was a General Education Board fellowship recipient.[56] Unlike Young, he didn't go to Medical School.[57] However, as Vice-Dean of the Medical School and Secretary to the faculty (1944-1946), McKinney was a bureaucrat. During his term (1930-1947) as Anatomy Chair, McKinney was wary of Howard's faculty union. During the 1930s, the AFT (American Federation of Teachers), mainly a K-12 school teachers union, saw more college professors join, while the Communist Party gained influence within their union.[58] In 1934, conservative activist Elizabeth Dilling published "The Red Network," listing over 460 "radical" organizations including the AFT and 1300 individuals she considered communist radicals. Her book deemed 'radical' especially persons, "engaged in 'academic freedom' [who] teach anything, including socialism, communism or atheism."[59] McKinney and Dean Adams considered Young 'radical' because he took 'academic freedom' to heart. In a letter to Dean Adams, Young notes, "I can truthfully say that I have disregarded personalities (including my own) and pursued the objectives of 'teaching and research.' Every effort I have made, every letter I have written, every lecture or paper I have delivered, and all my subsequent study and research have been unselfishly directed toward these objectives and in the interest of their efficient attainment."[60] The conflict between McKinney, Dean Numa P.G. Adams and

[54]Howard University (1939) "Who's Who in Our Faculty," The Dentoscope: Vol. 19: Iss. 2, Article 5. Open access by Digital Howard @ Howard UniversityAvailable at: https://dh.howard.edu/dentoscope/vol19/iss2/5

[55]Oral Interview. Calvin H. Sinnette, M.D. Interview conducted Nov 21st 2003. Sinnette graduated from Howard Medical School in 1949. In later years, he returned to the Med School as Deputy Director of Health Affairs and retired in 1991 as Professor Emeritus of Pediatrics.

[56]McKinney, Roscoe. The Rockefeller Foundation: Personal History Record and Application for Fellowship in General Education Board Records. Box 28 and 29, folders 259–26, 267. Rockefeller Archive Center, Pocantico Hills, N.Y.

[57]Manning, K. (2000, February). McKinney, Roscoe Lewis (1900-1978), educator and anatomist. American National Biography. Professor Roscoe McKinney had such high hopes "to study medicine and establish himself a practice in the Washington, D.C., area," that even his classmates at Bates College, remarked, "we all shall watch with interest and admiration his work at Harvard Medicine for the next four years, and we know he will make some Doctor." However, McKinney 'never attended medical school.'

[58]Lyons, John F. "American Federation of Teachers." Editor, Arnesen, Eric (2007). Encyclopedia of U.S. Labor and Working-class History, Volume 1. Taylor & Francis. pp. 87–90

[59]Dilling, Elizabeth. "The Red Network: a 'Who's Who' and Handbook of Radicalism for Patriots." (1934).

[60]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

Young devolved into attacks on personal integrity. Dean Adams accused Young of "lack of honesty and principle,"[61] while Young countered by documenting what he saw as dishonest administrative practices. At the time, university administrators relied on opaque, hierarchical control. What made this conflict particularly significant is how it reflected broader tensions in 20th century academic medicine. These tensions included increasing emphasis on research credentials versus traditional administrative authority; questions of autonomy and oversight in university bureaucracies versus faculty unionization; and resource allocation and institutional priorities. These tensions became sharpened in the complex racial dynamics at Howard's Medical School, a historically Black medical institution.

During the more than five years at Howard, Young was unable to get wall shelves or a kitchen sink put in his laboratory, while McKinney had two modern sinks with drainboards and other accessories installed.[62] To carry out key research he relied upon the courtesies of his former doctoral advisor at the University of Michigan. This necessitated numerous trips to and from Ann Arbor, made for the most part during the summer, at holiday seasons or on week-ends so as not to interfere with his teaching duties at Howard. All of his voluntary efforts, all of the scientific conferences attended and all of the summer studies and numerous trips were self-financed. In April, 1938, the Anatomical Association met at the University of Pittsburgh where Young presented a paper.[63] During the summer of 1938, he returned to Michigan and began a research study on the accessory olfactory apparatus. During the subsequent months and following a series of experimental brain operations back at Howard, he presented at the next meeting of the Anatomical Association in Boston on April 1939. At this conference he delivered

[61]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation…" pp 24

[62]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..." pp 15

[63]Young, Moses Wharton. 1938. The Medial and Midline Nuclear groups of the Thalamus of the Rabbit. 54th Meeting of the American Association of Anatomists, University of Pittsburgh, Pittsburgh, PA. April. Vol 70. No.4, Suppl 3. pp. 85.

two presentations and was invited to conduct brain research in Scotland with colleagues from several major universities.[64,65] In summer 1939, Young requested permission from McKinney to join Crosby and a team of brain researchers on a trip to Scotland to continue their studies. However, McKinney denied his leave request on May 19. Young was steadfast. He took the denial as an opportunity to focus on lab work. Back from Boston in early Spring 1939, the constant drive to Ann Arbor took a toll. Young's physical condition was so poor that his physician urged immediate hospitalization, attributing his hypertension, tachycardia and headaches to overwork and eyestrain. But he refused, unwilling to interrupt his work. Focused, he toiled the hours away using the meagerly resourced research laboratory at nights and over the weekend.

Young's late-night work habits are documented by Maintenance Department records and witnesses, which showed he frequently worked past midnight.[66,67] His work was delayed by the department's month-long response time to several maintenance requests, forcing him to take independent action. During this period, he was also teaching neuroanatomy to the entire Freshman Medical Class, including lectures, laboratory work and quizzes. On Sunday, March 19, rather than enjoying early spring weather, he worked throughout the day. Around 7 pm, he left specimens of temporal bones boiling in his laboratory while he went to dinner. Upon returning to complete his work and prepare blackboard drawings, he found himself unable to gain entry despite ringing the bell for ten minutes and calling toward the Dental School (through which he

[64]Young, Moses Wharton. 1939a. Preparation of Casts of the Bony Labyrinth. 55th Meeting of the American Association of Anatomists, Boston Mass. In: Anatomical Record. April. vol 73, p 77.

[65]Young, Moses Wharton. 1939b. The Fiber Connections of the Accessory Olfactory Bulb of the Rabbit. 55th Meeting of the American Association of Anatomists, Boston, Mass. In: Anatomical Record. April. vol 73, p 58.

[66]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

[67]Email Correspondence. Harris, DR. to Alexis CP, Mon., June. 18, 2006 at 8:08 AM. Young's late night work habits are also "evidenced by his late night visits to the Gross Anatomy lab where he gave incredibly great pointers to understanding and remembering anatomy." Carlton P. Alexis recalled that Young would tell his students, "there is no structure without function and no function without structure." "That admonition," Alexis says, "has remained with me for the past fifty three years."

entered the Med School building). Concerned about his specimens burning, he climbed the back fence posts and entered through an open window. Around midnight, a janitor identified as "Brown" confronted him about his entry method. The situation escalated when Brown returned with another janitor who was armed with a pistol.[68] They demanded to know how he had gained entry, but Young dismissed their concerns and continued working. To avoid further confrontation with the armed janitor, he left around 2 am by climbing out a window – a method he had previously employed, once even in the company of the Dean. The next day, maintenance staff changed the front door locks, though this had little practical effect as Young had never possessed a key. He continued to access the building through windows when necessary. He acknowledged inconsistencies in signing in and out of the building, attributing this to various circumstances including alternative exits, overnight stays, and the occasional lack of available sign-out sheets or writing implements.[69] Young maintained that he had never been previously questioned or warned about such procedural oversights. Confronted by this conflict, Young sought advice from colleague and faculty union boss Henry Callis.

[68]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."
[69]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

Howard Teachers Union and Young's Defense Case

In the 1930s, faculty at Howard's Medical School played a pioneering role in faculty unionization. The university had hosted the first American Federation of Teachers (AFT) local on a college campus in 1918 (Local 33) and achieved the first negotiated faculty contract in 1947 through the United Public Workers of America (UPWA-CIO) Local 10.[70,71] While Local 33 dissolved in 1920 due to administrative pressures, faculty unionization returned largely at the Medical School in 1936 with AFT Local 440 (Howard Teachers Union, HTU). Under the leadership of Interim President Henry Arthur Callis (Associate Professor of Medicine), the HTU advocated for faculty benefits, higher salaries, and took political stances including opposition to neutrality in the Spanish Civil War. "During the 1937-1938 academic year … the local began focusing more explicitly on the situation at Howard, first by supporting a petition for increases in instructors' salaries and then by forming a committee on tenure and salary to make recommendations to institutional authorities."[72] Eventually, as much as Howard's President Mordecai Johnson supported unionization in words–even during Congressional testimony–his actions spoke otherwise. The pressure from Congress to cancel appropriations was too much and Johnson was duplicitous. Despite Johnson's verbal support for unionization, his actions proved otherwise under Congressional pressure. This led to the controversial dismissal of Callis, who despite having nine years of service, wasn't provided reasons or fair review from Howard's Board of Trustees. Hinging on the Callis' case, Local 440 asked the faculty senate in the College of Liberal Arts to come up with proposals for "new tenure and dismissal policies." To which "the

[70]Herbert, W.A. "The History Books Tell It? Collective Bargaining in Higher Education in the 1940s," Journal of Collective Bargaining in the Academy: Vol. 9, Article 3. (2017). pp. 28. "Local 10 was formerly created in June 1944 at Howard University Medical School under the leadership of Dr. Johnson with 41 doctors and 23 staff as members."

[71]Cain, Timothy Reese. "For Education and Employment: The American federation of teachers and Academic Freedom, 1926-1941." In Perspectives on the History of Higher Education. Routledge. (2017). pp. 67-102.

[72]Cain, Timothy Reese. "Only Organized Effort Will Find the Way Out!": Faculty Unionization at Howard University, 1918–1950. Gasman, M., Geiger, R.L., (Editors). Higher Education for African Americans before the Civil Rights Era, 1900-1964. Routledge, London. New York, Volume 29. (2017).

faculty unanimously concurred and authorized its Committee on Tenure and Retirement to propose changes to institutional policy. This committee, which included several HTU members, endorsed a policy substantively the same as the one proposed by the union."[73] Howard's Board approved and in June 1939, it was presented with its first trial. "Indicative of larger difficulties within the School of Medicine, Dean Numa P.G. Adams informed another HTU member, Assistant Professor Moses Wharton Young, that he was being released for insubordination. HTU protested, and the elected faculty committee reviewed the case."[74] In 1939, "HTU had aligned itself with such organizations as the American League for Peace and Democracy, the Citizens Committee on Fair Taxation, the District Suffrage Association, the Marian Anderson Citizens Committee, the National Negro Congress, and the Women's Trade Union League."[75] Most importantly, HTU took direct action against employee discrimination.

In Young's academic dismissal case, several procedural irregularities and contradictions emerged that called into question the fairness of the process. Despite receiving a recommendation for a four-year contract worth $14,000 in April 1938, Young faced an unusual sequence of events beginning in May 1939.[76] Following the denial from McKinney to accompany his colleagues to Scotland, Dean Adams formally requested Young's resignation in a letter dated May 19, 1939, followed by charges from McKinney dated May 22, 1939.[77] On May 25, 1939, Dean Adams handed him another letter, predated May 19, 1939 refusing his request for leave to go to Europe and stating the refusal was based on the demand for his resignation. At a faculty meeting on June 15, 1939, the Dean publicly declared that "There is no case against Dr. Young" and denied the existence of charges, despite McKinney's charges having been filed over

[73]Cain, Timothy Reese. 2017. pp 124
[74]Cain, Timothy Reese. 2017. pp 124
[75]Holloway, Jonathan Scott. Confronting the Veil: Abram Harris Jr., E. Franklin Frazier, and Ralph Bunche, 1919-1941. University of North Carolina Press, 2003.
[76]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."
[77]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

three weeks earlier.[78] In a July 13, 1939 interview about tensions at Howard's Medical School, Professor Raymond L. Gregory (1937-1939), commented on how Young became a central figure in faculty disputes with Dean Adams and McKinney. Gregory believed Young was fired solely because, unlike the eight other General Education Board recipients,[79] he demonstrated too much independence and refused to be a "yes man" to Dean Adams. Young challenged Adams' authoritarian management style that treated the institution "as a kindergarten with the Dean handling all the details."[80] Gregory also described McKinney as a "flop."[81] One former medical student, who later served on the faculty, described McKinney as a "slithery snake and someone who could not be trusted."[82] According to Gregory, Young was dismissed by Adams without explanation, despite being regarded as "the ablest man in the whole preclinical group" with an "excellent mind" and considered "best of the group" among General Education Board fellowship recipients.[83]

On August 8, 1939, the situation became more perplexing when McKinney submitted recommendations for dismissal producing thirteen pages of recommendations despite having limited professional interaction with Young, while Dean Adams, who had even more limited professional contact, submitted an excessive forty pages of recommendations for dismissal.[84] This reversal of established procedures, coupled with the contradictory public statements and disproportionate documentation, suggested potential irregularities in the handling of Young's

[78]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

[79]General Education Board fellowship recipients (Howard Medical School Faculty Preclinical Group). Moses Young (Neuroanatomy); R.S. Jason (Pathology); E.E. Collins (Pathology); Roscoe L. McKinney (Anatomy); H.A. Pointdexter (Bacteriology); P.B. Cornely (Public Health); J.L. Johnson (Physiology); W.M. Cobb (Anatomy); E.G. Weir (Physiology).

[80]Gregory, Raymond L. Interview regarding the General Education Board's work with past Rockefeller Foundation Fellowship recipients. July 13, 1939. General Education Board Early Southern Program Archive. District of Columbia. Folders. 260–271. Roll # 21. Scholarly Resources Inc. (2003).

[81]Gregory, Raymond L. July 13, 1939.

[82]Harris, DR. Interview of Calvin H. Sinnette conducted Nov 21st 2003. Sinnette is a member of the Howard Medical School Class of 1949. Sinnette served as the Deputy Director of Health Affairs and retired from Howard University as Professor Emeritus of Pediatrics in 1991. He described R.L. McKinney as a 'slithery snake and someone who could not be trusted.'

[83]Gregory, Raymond L. July 13, 1939.

[84]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

case. The timing and nature of McKinney's charges–submitted after the Dean's request for Young's resignation rather than before–suggested they were crafted to justify a predetermined outcome rather than reflecting genuine cause for dismissal. Young's detailed documentation provides a window into the personal cost of challenging established power structures in academic medicine during this period. Young's sixty-seven-page defense notes, that given the:

> "many other unpleasant experiences with my superiors, I was convinced that reason, logic and ability were of no avail. I did write Dean Adams for his opinion regarding a teacher's union. Dr. Mordecai Johnson had previously been asked the same question and gladly stated his opinion; he later publicly announced his position regarding unions. Yet, I regret the fact that Unions are necessary to bring mass pressure in such an intelligent organization as a university. I feel that logic, reason, and objectivity should be so dominant in a school sponsoring original research that there would be no place for, no desire for, and certainly no need for brutal force and mass pressure. In principle, I am therefore still against Labor Unions in a University. I trust the day will soon come when we can safely dispense with them and their tactics and let intelligence, logic, and reason prevail in their stead. But for the present, especially in this university, they must and shall prevail."[85, 86]

Young's defense explained, that "it is admittedly bad taste for one to speak or write of his own accomplishments, but under the circumstances, where a concerted and organized effort is being made not only to defame one's professional but also one's moral character, licenses to offset such an effort by stating the true facts may be assumed."[87] McKinney's efforts to engineer Young's ouster had failed. In response to Young's defense, "the committee found that the dismissal was unwarranted and recommended to the board that Young be retained—a recommendation that the board upheld."[88] As crafty as McKinney was, he could not get the Board to support his push to get rid of Young and, "although things remained somewhat troubled in the school, tenure was more secure than had previously been the case, in large part through HTU's work."[89] Young's

[85]Cain, Timothy Reese. 2017. pp 124
[86]Young's brother, F. Weldon Young was active in the International Union of Operating Engineers, Local No. 2 (St Louis, MO).
[87]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."
[88]Cain, Timothy Reese. 2017. pp 125
[89]Cain, Timothy Reese. 2017. pp 125

case offer valuable insights into the challenges faced by research-oriented faculty members in early 20th century medical schools, particularly at institutions undergoing modernization and professionalization. The detailed nature of Young's defense also provides a window into academic governance and personnel disputes in this crucial period of medical education reform. The conflict ultimately culminated in attempts to dismiss Young, leading to this detailed refutation and defense. Young's meticulous documentation and point-by-point rebuttal suggest someone fighting not just for his position, but for his vision of academic medicine centered on research and merit rather than administrative hierarchy. Young's case exemplified the larger institutional conflict between Adams' centralized control and faculty expectations for shared governance, with Young's academic excellence and professional independence making his unexplained dismissal particularly controversial among his colleagues.

Because the General Education Board was funded and guided by the Rockefeller Foundation, its Program Officer, Robert A. Lambert, closely monitored tensions at the Medical School. On Wednesday, November 1939, Lambert reported that:

> "during the past few months Young has been the center of a tempest at Howard which ended with his being reprimanded and suspended for a year by the Howard Board following report of a special faculty committee of which [Edward Lee] Howes[90] and [Raymond] Gregory[91] were members. Young comes to discuss with me plans for utilizing his free year, and I think also to get my ideas about the future. (Young's troubles at Howard evidently derives from personal conflicts with his chief, McKinney, and Dean Adams). The actual charges against him consisted of all sorts of petty matters such as tardy morning arrival at the school and disrespectful attitude towards the Dean. The Dean had recommended his dismissal."[92] 'However,' Lambert continued, "after a long talk with Young, I get the impression that he is, as both Howe and Gregory maintain, a very intelligent, well-trained man, well above average of the younger group at Howard. I am

[90]Syphax, Burke. "The Howard Department of Surgery." Journal of the National Medical Association 59, no. 6; (1967): pp. 441-446. Edward Lee Howes was brought to Howard University Medical School and Freedmen's Hospital under an arrangement made by Dean Numa P. G. Adams and funds supplied by the Rockefeller Foundation.

[91]Lick, French. "Arkansas: First Full Time Professor of Medicine." Journal of the American Medical Association. November 4th (1939); 113 (19): pp. 1742-1745. Raymond L. Gregory was a Professor of Medicine at Howard from 1937 until Dec. 1939.

[92]Lambert, Robert A. Letter regarding the General Education Board's work with past Rockefeller Foundation Fellowship recipients. November 29, 1939. General Education Board Early Southern Program Archive. District of Columbia. Folders. 260–271. Roll # 21. Scholarly Resources Inc. (2003).

> convinced, however, and so tell Young, that owing to the bad feeling between him and his superiors, his usefulness at Howard is probably ended and that he should not plan to continue there after his year's suspension."[93]

Lambert advised that since a good anatomist was badly needed at Meharry, Young should visit Nashville and ask [Edward L.] Turner[94] for the privilege of working there for the remainder of the current academic year. Lambert noted that since Young was on full salary from Howard, there would be no financial problem, as Young himself admitted. Lambert even suggested that an alternative arrangement for the future may be to obtain a position at Harvard, and agreed to write [George] Wislocki[95] if Young decided he would like to go to Boston. Young's dilemma was obvious. While he was suspended from Howard, there was only one Black "instructor at the Harvard Medical School," who held "annual appointments from 1918 until his retirement in 1950."[96] Lambert valued Young's work so much that he was willing to coordinate getting him onto Harvard Medical School's faculty despite it being near impossible. However, Young spent the Spring 1940 semester at Meharry followed by a brief stint at a Medical College in Mexico before resuming his duties at Howard. Back at Howard, he kept to himself and focused on research.

Fresh from his trip, Young was relentless. He refused to let his case interrupt his research. With his case over, he toiled on as if it had never happened, reading and working in his lab during the dark hours of night. This was 1941 and he read closely about blast injury syndromes

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[93]Lambert, Robert A. November 29, 1939

[94]Hansen, Axel C. "Meharry Medical College in Retrospect." Journal of the National Medical Association. Vol. 65, no. 4 (1973): pp. 275. Dr. Edward L. Turner was President of Meharry Medical College between 1938 and 1944. He modified the curriculum of the School of Medicine with new concepts in medical education including the scientific approach be used for solutions to clinical problems.

[95]Seligman AM. "George Bernays Wislocki, (1892-1956)." Journal of Histochemistry & Cytochemistry. (1957); 5 (1): pp. 96-97."Wislocki was the Parkman Professor of Anatomy at Harvard (1931-1941). He was known for training many students who became leading anatomists. Wislocki loved independent thinkers. He was scornful of mediocrity and took special delight in poking fun at self-righteous, pompous or vain, though capable scientists." Robert A. Lambert thought, it was a good idea for Young to work with Wislocki.

[96]Slater, Robert Bruce. "The first Black faculty members at the nation's highest-ranked universities." The Journal of Blacks in Higher Education. Vol 22 (1998): pp. 97-106.

seen among soldiers since World War I. The catalyst for modern concussion research emerged from the trenches of World War I, where soldiers faced unprecedented exposure to blast forces from high explosives. Military physicians confronted a perplexing phenomenon they termed "shell shock," struggling to differentiate between psychological trauma and physical brain injury.[97] In 1916, Frederick Mott's discovery challenged existing theories. He suggested that blast waves could cause microscopic brain damage without any visible external injury.[98] This finding marked the beginning of a new era in concussion research, suggesting that the injury's invisible nature made it no less real or significant. The interwar period also saw important advances in understanding concussion mechanics, with Denny-Brown and Russell's late 1930s experiments[99] demonstrating that rotational acceleration, rather than direct impact alone, could produce concussive symptoms. Their experiments were a direct result of the German Luftwaffe (Air Force) bombing campaign pounding British cities between September 1940 and May 1941. Beginning on "Black Saturday" (September 7, 1940), the campaign opened with devastating raids on London that killed 430 and injured 1,600, leading to 57 consecutive nights of bombing. German forces dropped 711 tons of high explosives and 2,393 incendiaries, killing 1,436 civilians.[100] To onlookers this was surreal because Germany was restricted from having weapons of this caliber. Piqued with interest, Young notes; "following the complete surrender of the Kaiser's forces in World War I, the Germans were forbidden by the Versailles Treaty (1919) to rearm while the Allies fortified the Maginot Line and rearmed. The military cadets in Germany

[97]Jones, Edgar, Nicola T. Fear D. Phil, and Simon Wessely. "Shell shock and mild traumatic brain injury: a historical review." American Journal of Psychiatry 164, no. 11 (2007): 1641-1645

[98]Mott, Frederick Walker. War neuroses and shell shock. Published by the Joint Committee of Henry Frowde and Hodder & Stoughton. 17 Warwick Square, London (1919).

[99]Denny-Brown, Derek, and W. Ritchie Russell. "Experimental cerebral concussion." Brain. Vol. 64, no. 2-3 (1941): pp. 93-164

[100]German Air Attacks on England, 8 August 1940 –10 September 1940, Catalogue ref: AIR 2/7355 (Air Ministry and Ministry of Defense: Operation Record Books). British National Archives. Kew, Richmond, Greater London, TW9 4DU.

had to drill with broomsticks for rifles were forbidden by the disarmament treaty."[101] However, unknown to Allied forces, and even to Young, between 1933 and 1940, German scientists and engineers covertly led research to build innovative bomb capability despite the Versailles Treaty (1919) restrictions.[102] Ultimately, Germany built bombs which challenged Allied scientists to reverse engineer how it caused death in its victims.

In 1941, British pathologists and anatomists faced a critical challenge in understanding civilian bomb casualties where "no gross trauma was evident" but severe internal injuries were present. This phenomenon, termed "haemorrhagic pulmonary concussion," emerged as "a potentially new form of injury" during the wartime bombing raids.[103,104] In the effort to understand civilian bomb casualties, Young observed that German military scientists had "developed a new lethal weapon called the Blast Concussion bomb that killed its victims by acute atmospheric compression without leaving a scratch upon the human body."[105] He elaborated that this "lethal effect was enhanced by a preliminary sound (buzz and screech bombs) which the Allies ascribed to 'psychological effects.' According to Young, some news reports indicated that "deaf persons were less susceptible to the London bombing attacks," and that since he had been researching the ear since 1937,[106,107] he "was asked to study these preliminary sound effects which led to investigating the blast effects themselves." By the time

[101]Young, Moses Wharton. Letter to Guth, Lloyd. (Circa 1975-1977). Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Washington D.C

[102]Johnson, Ian Ona. "The Faustian Pact: Soviet-German Military Cooperation in the Interwar Period." Ph.D. dissertation. The Ohio State University, 2016. Notes; This rearmament was so effective that by the start of WWII, Germany possessed some of the most advanced military technology in the world, largely due to the research and development conducted on secret facilities in the USSR.

[103]Ross, Joan. "Haemorrhage in the Lungs in Cases of Death Due to Trauma," British Med Journal (18 January 1941): pp. 79-80. See also, "Lung Injuries in Air Raids: A Discussion on Pathology and Diagnosis," British Med Journal (16 August 1941): pp. 239-242.

[104]Bell, Amy. The Development of Forensic Pathology in London, England: Keith Simpson and the Dobkin Case, 1942. Canadian Bulletin of Medical History. Bulletin canadien d'histoire de la médecine. (2012). Fall;29(2). pp 265-282.

[105]Young, Moses Wharton. Letter to Guth, Lloyd. (Circa 1975-1977). Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Washington D.C

[106]Young, Moses Wharton. 1937b. Preparation of Casts of the Bony Labyrinth. Science, vol 86, pp. 619 – 620, December 31st

[107]Young, Moses Wharton. Letter to Guth, Lloyd. (Circa 1975-1977). Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Washington D.C

Young read John Fulton et al. work on blast injuries in 1942, he was well on his way to present the first definitive article, 'Anatomical Bases of Concussion Shock' (blast syndrome)[108] at the Anatomical Association meeting in 1944, followed up by a more definitive report on 'The Mechanics of Blast Injuries' (published just before the bombing of Hiroshima, Japan) in War Medicine, August 1945[109] Between 1942 and 1944, Young's research on blast injury pathology was self-funded. Later on, he had little to no monetary backing from Howard, the U.S. Department of War (now U.S. Department of Defense) nor from philanthropic sources for research.[110]

[108]Young, Moses Wharton. 1944. The Anatomical Bases of Concussion Shock (blast syndrome). Meeting of the American Association of Anatomists, America. In: Anatomical Record, vol 88, p 469.

[109]Young, Moses Wharton. 1945. Mechanics of Blast Injuries. War Medicine, (August), vol 8, p 73 – 81.

[110]Most academic research was funded by philanthropic foundations (ie. Julius Rosenwald, John D. Rockefeller and Andrew Carnegie foundations, in particular) and industry. Note. "There was, if anything, an aversion among academics to public funding, reflecting concerns that it may restrict scientific freedom."

CHAPTER 3

BLAST INJURY STUDIES: INSIGHT FROM YOUNG'S WORK

Young's pioneering experiments in the 1940's investigated the effects of blast explosion pressure waves[111] on the human body, focusing on the brain and lungs. Using anesthetized dogs (weighing 14-22 kg), he simulated pressure changes by constricting and loosening canvas bands around their thorax and abdomen, monitoring pressure dynamics in the cerebrospinal fluid, carotid artery, jugular vein, and lungs.[112] These controlled experiments replicated the physiological impacts of actual blasts, though at a slower pace. Young showed that blast-induced pressure surges force blood to flow backward toward the brain, transmitted through incompressible bodily fluids per Pascal's Law.[113] This amplified pressure wave, upon reaching the brain, mimics direct physical trauma, causing hemorrhaging in the lungs and cerebral cortex.[114] In his War Medicine paper (1945), Young introduced the concept of the central nervous system as a "closed box" system.[115] Unlike earlier studies by Denny-Brown and Russell,[116,117] emphasizing direct trauma, he demonstrated that blast injuries stem from pressure transmission through enclosed fluid spaces, causing damage without external signs. He also noted a military tactic: preliminary sounds, such as sirens in German antipersonnel mines, trigger reflexive muscle contraction, elevating venous and cerebrospinal fluid pressure. This

[111]Young (1945). pp. 73. "The molecular displacement produced by the detonation causes a pressure wave to travel outward in all directions from the center of the explosion, and this pressure wave, which has been designated the shock wave by Robinson (see Figure 4), produces destructive effects at great distances from the site of the explosion."

[112]Young (1945). pp. 77

[113]Young (1945). pp. 76. "Pascal's law for equality of pressures not due to action of gravity: Pressure exerted anywhere on a mass of liquid is transmitted undiminished in all directions and acts with the same force on all equal surfaces and in a direction at right angles to those surfaces."

[114]Young (1945). pp. 74

[115]Young (1945). pp. 75. "The mechanics of the closed box" was observed by Guild [Guild, S.R. Circulation of Endolymph. American Journal of Anatomy. 39: March (1927). pp. 57-81], "in regard to the inner ear."

[116]Denny-Brown, Derek, and W. Ritchie Russell. "Experimental cerebral concussion." Brain. Vol. 64, no. 2-3 (1941): pp. 93-164

[117]Denny-Brown, D. "Cerebral concussion." *Physiological Reviews* 25, no. 2 (1945): pp. 296-325.

preconditioning amplifies the subsequent blast's effects.[118] Young further drew a parallel between concussion bombs and depth charges, highlighting their shared pressure wave mechanics in air and water. He likened humans to living "at the bottom of a sea of air," suggesting concussion bombs could transform warfare as depth charges did for antisubmarine efforts.[119]

Young's insights extended to ocular blast injuries, a critical concern during World War II. The eye's unique anatomy makes it susceptible to pressure waves, which can cause severe damage without physical contact. Rossi and Scott's studies in 2011 and 2012 built on Young's 1945 observations, proposing that pressure wave interference in the orbital cavity generates opposing stress waves, forming a resonating "steady wave" that leads to ocular trauma.[120,121,122] This concept, initially proposed by Young and later validated, advanced the knowledge of blast-related eye injuries. This understanding of how pressure waves interact with eye tissues has been crucial for developing both protective measures and treatment protocols for military personnel exposed to explosive environments. Early researchers,[123] including Duke-Elder,[124] suggested that both positive and negative pressures played crucial roles in causing eye damage, but the precise mechanisms remained untested for decades. Rossi and Scott's research built upon Young's observations made during wartime studies, particularly those from his 1945 publication when blast injuries were systematically documented. The comprehensive understanding of these wave mechanics has significant implications for both protective equipment design and treatment

[118]Young (1945). pp. 75 and pp. 81

[119]Voyetekhov, Boris (1943). "The Last Days of Sevastopol." Translated from the Russian by Ralph Parker and V. M. Genne. Published by Alfred A. Knopf, New York, NY.

[120]Rossi, Tommaso, Barbara Boccassini, Luca Esposito, Chiara Clemente, Mario Iossa, Luca Placentino, and Nicola Bonora. "Primary blast injury to the eye and orbit: finite element modeling." Investigative Ophthalmology & Visual Science 53, no. 13 (2012): 8057-8066.

[121]Scott, Robert. "The Injured Eye." Philosophical Transactions of the Royal Society B: Biological Sciences 366, no. 1562 (2011): 251-260;

[122]Rossi, Tommaso, et al (2012). pp. 8061

[123]Bellows, JG. Observations on 300 consecutive cases of ocular war injuries. American Journal of Ophthalmology. 1947; 30:309–323.

[124]Duke-Elder, Stewart (William). Concussion injuries. In: Text-Book of Ophthalmology. Volume 6: Injuries. London: Henry Kimpton; 1954: pp. 5751–5961.

protocols for blast-related ocular injuries. Young's integration of physics, anatomy, and fluid mechanics provided a novel framework for understanding blast injury pathophysiology offering lasting contributions to both military and clinical fields.

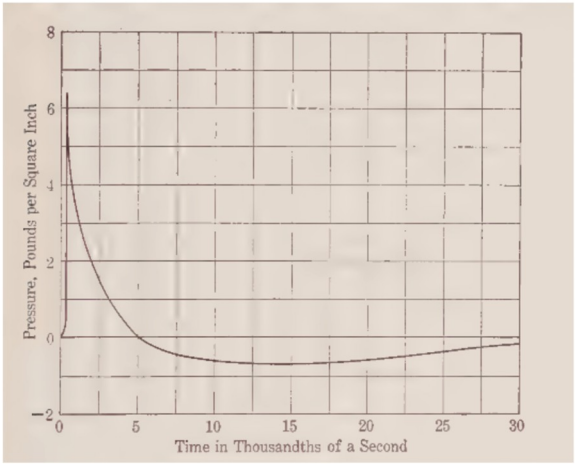

Figure 4. Young applied Robinson's 'shock wave' observations to the Central Nervous System. See "Robinson, C.S. *Explosions: Their Anatomy and Destruction*, New York, The McGraw-Hill Book Comp. Inc. (1944)."

CHAPTER 4

CITATION LIMITATIONS AND SCHOLARLY RECOGNITION

Heywood's biographical account of Young draws on Winston's (1971) paper, "Through the back door: Academic Racism and the Negro scholar in Historical Perspective." It notes that Black scholars are "rarely, if ever ... invited to present papers to the national meetings of their professional organizations, despite the 'high regard' some of their work is supposed to enjoy." He elaborates that it wasn't "unusual for their work to be omitted from consideration entirely." This phenomenon cannot be attributed to Young's scholarship. Young was invited to national meetings of the American Association of Anatomists for over 43 years. He attended and presented papers at those meetings almost every year (1939-1982) without fail,[125] despite refusal for hotel accommodation. This doesn't even include the international conferences he was invited to, attended and presented. Interestingly, Young was among Winston's (interviewed) sources during the research phase of his paper.[126] However, throughout the entire paper, there is no biographical account of Young nor thoughts about his scholarship in relation to 'academic racism.' There's irony in that Young–a Black scholar–had his ideas omitted from a study on 'academic racism' by Winston–a Black scholar. In 1975, five years after Winston interviewed Young, the U.S. Department of Defense recognized Young's 1945 work on blast mechanics. Heywood cited Winston's omission of Young because he had another alibi for 'academic racism.' Heywood thought the "14 non-self-citations," between 1945 and 1979 indicates

[125]See the American Association of Anatomists national meetings Abstracts (between 1939-1982) listed among the "Publications by Moses Wharton Young (1934-1982)." Young and Howard University Anatomy dept colleagues faced racism when trying to get hotel accommodation. This is well documented by the court cases filed by Young based on public accommodation discrimination.

[126]Interview in June 1970 with M. Wharton Young, Professor of Neuroanatomy at Howard University. See pp. 718. (footnote reference 71) in "Winston, Michael R. "Through the back door: Academic racism and the Negro scholar in Historical Perspective." Daedalus (1971): pp. 678-719." – "Winston had interviewed Young while preparing the paper from which this quote is excerpted, however, no specific information about him is included." Heywood (2018). pp. 25

‘academic racism.’ Heywood asks, "Did Young’s article receive this scant attention in the years immediately after its publication, because it was conducted by an African American scientist at a historically black university who lacked association with well-known scientists in this field?"[127]

Citation research findings indicate that methodological limitations and not racism alone provide better context to non-self-citation patterns on Young’s 1945 paper. In addition to the "14 non-self-citations" between 1945-1979, it had "been cited 10 times" between 2009-2017 (prior to Heywood’s article in 2018). Young’s article had been cited 14 times in 34 years and 10 times in 8 years; a rate of "10 times in 8 years" was approximately 203.5% higher than the rate of "14 times in 34 years." To understand how and where Heywood got "14 non-self-citations," an email was sent to Heywood asking, "can you tell me how you assessed” that Young’s article was "cited 10 times since 2009 ... and what method you used to arrive at this conclusion?"[128] Heywood wrote back, "I went to Google Scholar and typed the title of Young’s 1945 paper. When I clicked on this, it gave me the information … I counted the papers cited since 2009 and those cited during 1945-1979."[129] The underlying falsehood in Heywood’s claim is that his use of Google Scholar citation counts is problematic. While Google Scholar is widely used for scholarly output evaluation, its credibility as a fair and accurate metric is deeply flawed. In "Google Scholar is manipulatable," Hazem Ibrahim and colleagues expose how its citation metrics can be easily manipulated through purchased citations, fraudulent papers, and permissive indexing practices.[130] There is further evidence that challenges the reliability and validity of citation counts as comprehensive measures of scholarly impact. Perhaps the most significant limitation of citation

[127]Heywood (2018). Academic Racism. pp. 25

[128]Harris, DR. Personal Communication (dahvedh@gmail.com), Sat., Sept. 14, 2024 at 4:40 PM. to P. Heywood, Personal Communication (peter_heywood@brown.edu), Mon., Sept. 16, 2024 at 7:48 PM. Electronic Mail Correspondence.

[129]Heywood, P. Personal Communication (peter_heywood@brown.edu), Sept. 17, 2024. to Harris, DR. Personal Communication (dahvedh@gmail.com), Sat., Sept. 14, 2024 at 4:40 PM. Mon., Sept. 16, 2024 at 7:48 PM. Electronic Mail Correspondence.

[130]Ibrahim, Hazem, Fengyuan Liu, Yasir Zaki, and Talal Rahwan. "Google Scholar is manipulatable." *arXiv preprint arXiv:2402.04607* (2024).

metrics is their inherent temporal bias. Heywood's work offers a clear example: Heywood mentions that Young's article received only "14 non-self-citations" between 1945-1979, but then accumulated 10 citations between 2009 and 2017. This pattern reveals how citation accumulation is neither linear nor predictable over time.

Eugene Garfield, the founder of the Science Citation Index, acknowledged this limitation early on. From his article "Premature Discovery or Delayed Recognition,"[131] we see a clear example of citation metrics failing to capture scholarly impact over time: "Babich's paper was cited 70 times from 1965-71, but it received only 11 citations from 1972-79."[132] This demonstrates how citation patterns can dramatically shift over time. The macromolecular theory of memory paper initially received significant attention with many citations, but interest declined substantially in later years. This citation decline illustrates that measuring scholarly impact through citation counts at any single point can be misleading, as a paper's perceived significance may fluctuate dramatically as scientific paradigms evolve. Papers may experience periods of high citation followed by near-obscurity, making citation metrics an unreliable sole indicator of lasting scholarly impact.

There's a clear limitation of using citations to measure scholarly impact. Research by Wang and others state that, "Paradigm-changing discoveries have notoriously limited early impact,[133] precisely because the more a discovery deviates from the current paradigm, the longer it takes to be appreciated by the community.[134] Indeed, although for most papers their early-and-long-term citations correlate, this correlation breaks down for discoveries with the most long-term citations. Hence, publications with exceptional long-term impact appear to be the hardest to

[131]Garfield, E. (1980). Premature discovery or delayed recognition—Why? Essays of an Information Scientist, Current Comments. Volume 4. pp. 488-493.
[132]Garfield (1980) pp. 492
[133]Redner, Sidney. "Citation statistics from 110 years of physical review." Physics today 58, no. 6 (2005): pp. 49-54.
[134]Kuhn, Thomas S. The Structure of Scientific Revolutions. Vol. 962. Chicago: University of Chicago press, 1997.

recognize on the basis of their early citation patterns."[135] This highlights a significant limitation of citation metrics—they often fail to identify the most groundbreaking work in its early stages. Papers that eventually become the most impactful are frequently those that challenge existing paradigms, and these revolutionary ideas typically take longer to gain recognition and citations, making early citation counts a poor predictor of their ultimate impact.

Based on analysis of Toni Morrison's speech, "A Humanist View,"[136] the term "academic racism" itself may be an expression of how academic language may perpetuate racist ideas and structures. In a sense, Heywood's "academic racism" argument may perpetuate racial "malignancy." Morrison showed that historical statistics reduced enslaved people to mere numbers, erasing their humanity and individual stories. Morrison argued that "it's important, to know who the real enemy is, and to know [that] the function of racism ... is distraction." She says, "*it keeps you from doing your work*. It keeps you explaining over and over again, your reason for being."[137] Thus, using citation metrics and "academic racism" arguments may be conjecture and speculation about scholarly contributions without examination of institutional power structures (ie. the Howard University Medical School administration; 1934-1973).

[135]Wang, Dashun, Chaoming Song, and Albert-László Barabási. "Quantifying long-term scientific impact." Science 342, no. 6154 (2013): pp. 127.

[136]Morrison, Toni. Morrison's speech is entitled, "A Humanist View," From Portland State University's Oregon Public Speakers Collection: "Black Studies Center Public Dialogue. Part. 2,," Part of the Public Dialogue on the American Dream Theme, via Portland State University Library. May 30. (1975). Transcribed by Keisha E. McKenzie.

[137]Morrison, Toni. (1975).

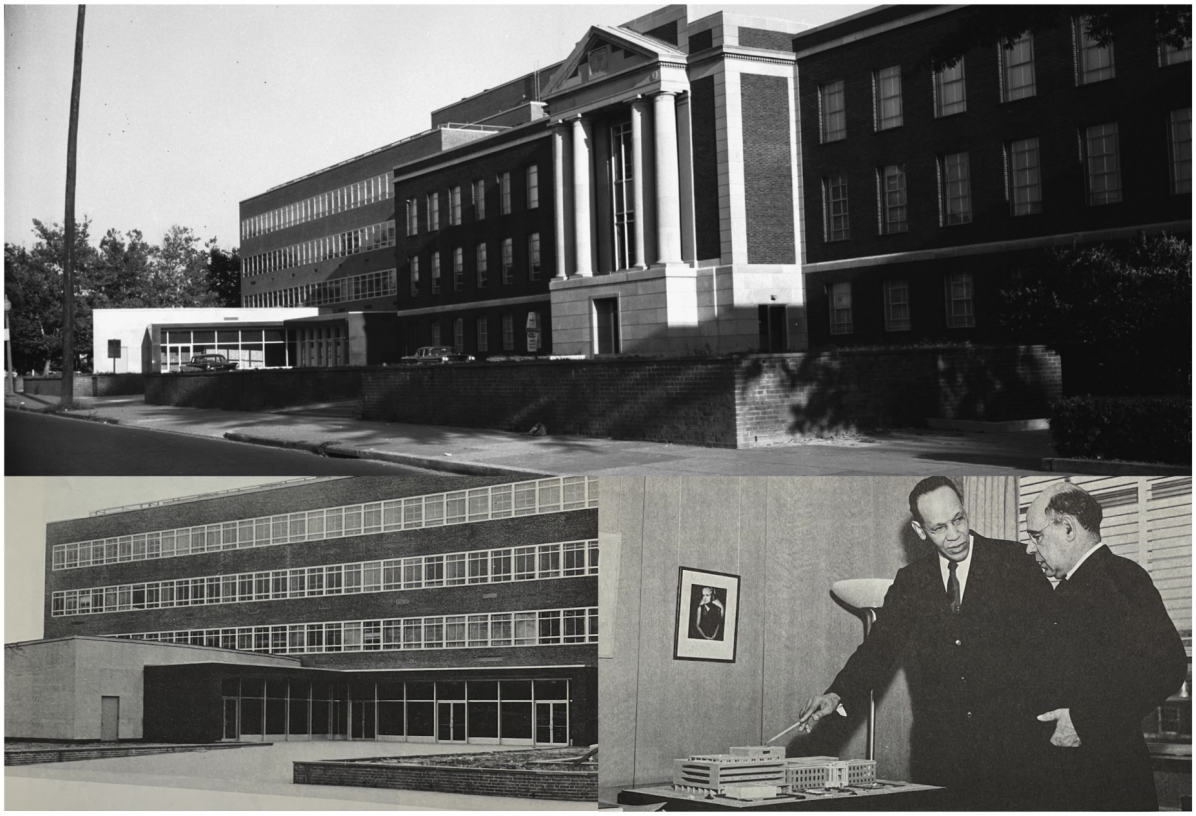

Figure 5. Dean Jason uses a scale model to point out some of the features of the new building to President Mordecai Johnson. The building enabled the College to increase the size of its freshman class to 100 students. It adjoined the Old Medical Building which went under complete renovation. *Photo from Howard University Bulletin, March 15, 1958*.

CHAPTER 5

PRIOR PROBLEMS AND THE NEW BUILDING COMMITTEE

In addition to his work on the inner ear and following the 1945 paper in War Medicine, Young conducted studies (between 1947 to 1979) on asthma, glaucoma, and baldness because they were 'pressure related problems.'[138] Heywood admits there were valid reasons why Young's scholarship–outside his work on the inner ear–didn't get that much attention. Heywood says, these works existed "only as abstracts, with the exception of an article in Japanese [and] is probably warranted as the quality of the work does not match Young's contributions in other areas. The abstracts on asthma and glaucoma present no experimental evidence, and so it is unsurprising that they are not cited. Although his work on baldness received some popular attention, it seems to be flawed and has received few citations."[139] Young's research on the inner ear, however, shows exactly why he would have rejected any characterization of his work as 'neglected.' Young promoted his own work just as his father promoted his own tailor business. Using his own money and tools, Young manufactured metal casted earrings of the inner ear.[140] "On the back of a business card belonging to M. Wharton Young, M.D., Ph.D.," it says, "These Inner Ears may be worn on the Outer Ears for better exposure, observation & study."[141] Young brought much attention to his own work by endlessly donating his inner ear styled jewelry to colleagues in the U.S. and abroad. However, Young's enterprising and independent attitude

[138]Young, Moses Wharton. Letter to Guth, Lloyd. (Circa 1975-1977). Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Wash DC. Young noted he worked on "pressure related problems. glaucoma from eye pressure; deafness from ear pressure even in aviation; hypertension from blood pressure; bends, compression diseases from atmospheric and aquatic pressure; jack-knife and collusion effects from intracranial pressure."

[139]Heywood, P. (2018). pp. 25

[140]Young, Wharton, M. to Guth, Lloyd. "These casts are by-products of my early ear studies: 'Preparation of Casts of the Human Labyrinth' in Science v.86, 1937, and 15 years later: 'Mercury as a Casting and a Contrast Medium' in Science, v.116, 1952, which led to our new concept of the structure and function of the ear in health (physiology) and in deafness (pathology) that is chronic and progressive (otosclerosis)."

[141]Heywood, P. Metal Casts Showing the Three-Dimensional Structure of the Human Inner Ear were converted into Jewelry. Otol Neurotol. 2015; 36: pp. 936–940. Notes: The card accompanied a pair of earrings, a tie clasp, and a lapel pin, each of which featured a gold-plated cast of the human inner ear

brought him in conflict with university administrators who did not share his values. Young's relationship with McKinney and Dean Adams not only showed tension between the faculty union and university administration, it also showed tension among Black physicians who had been given complete authority to manage a Medical School.

In 1927, Howard Medical School underwent a major transformation under President Mordecai Johnson, the first Black university president at Howard. Johnson replaced the existing white-dominated, part-time faculty to give Black physicians full control of the Medical School. Dean Numa P. G. Adams led the reorganization, recruiting top Black faculty nationwide, who all received General Education Board fellowships for Ph.D. training, including; Roscoe L. McKinney (microscopic anatomy at Chicago, 1930), W. Montague Cobb (physical anthropology at Case Western Reserve, 1932) and Moses W. Young (neuroanatomy at Michigan, 1934). Even though Howard Medical School was conceived to counter the exclusionary practices of majority white Medical Schools, it often reproduced exclusionary practices among the faculty. Du Bois's 'talented tenth' philosophy—the idea that Black college-educated elites would lift up the broader Black American community—introduced inherent tensions among Black faculty elites. The pursuit of prestige and recognition, while necessary for institutional survival, created internal hierarchies which mirrored broader academic elitism between faculty and administration. The scarcity of physical resources and poor lab infrastructure in the 1928 Medical School building undermined relations among faculty. Some faculty administrators apparently saw themselves as the 'talented tenth' and became self-appointed gatekeepers. Owing to social mobility aspirations and the drive for career recognition, they were conditioned to allow few others access, as Abraham Lincoln and Abraham Flexner envisioned.[142]

[142]Rowley, Bob. "AMA Restricts Med School Admissions." Synapse. The University of California San Francisco Student Newspaper. Volume 19, No. 33, June 12. (1975). Note: "we have over a century of mismatch supply and demand to make up for in this country, as well as disproportionate access to medical training for people of color."

One individual who clearly exemplified 'talented tenth' ambition was W. Montague Cobb; a man "known to recite poetry and play the violin to demonstrate points he wanted to make regarding anatomy." Unlike McKinney, Cobb was prolific.[143] In addition to well over 1000 publications, Cobb integrated "art, literature, philosophy, history, physical anthropology, and anatomy," in teaching and research. Cobb graduated in 1921 from Dunbar High School, the embodiment of Du Bois's 'talented tenth' creed. This elite institution, called "possibly the best high school in the world,"[144] deliberately cultivated Black American intellectual leadership. Its alumni formed a social index of the Black elite, with faculty selecting graduates for admission to top colleges. McKinney and Cobb both grew up in Washington D.C. but McKinney graduated from Dunbar in 1917, four years before Cobb. Thirty years later, in 1947, McKinney stepped down and Cobb became Anatomy Department Chair. As head, Cobb wrote, "Dr. Young was made associate professor in 1941 and professor in 1947. Never placid, the Howard medical school waters have been stormy over the past generation and the fact that these three gentlemen [McKinney, Cobb and Young] are still there proves a certain sea worthiness."[145] On May 29, 1952, Young wrote to a colleague, "I just received a letter from my friend E. Franklin Frazier in Paris. My eighteen years on this faculty has convinced me that there is no place for a scholar at Howard – the culture pattern does not permit it; only those who leave here really achieve."[146] Young shared a strong bond with Frazier. In contrast to McKinney and Cobb, Young did not consider himself part of the 'talented tenth' in the sense advocated by DuBois and neither did

[143]Blakey, Michael L., and Rachel Watkins. "William Montague Cobb: Near the African diasporic origins of activist and biocultural anthropology." The Anatomical Record 305, no. 4. (2022): pp. 844. Notes: “By the time of his death in 1990, W. Montague Cobb had published 1,100 articles, many of which opposed racial determinism and sought equitable health care. His anthropometric measurements on the living body of Jesse Owens and other Black Olympians showed them to defy racialization.”

[144]Rankin-Hill, Blakey (1994).

[145]Cobb W. Montague. The Howard Department of Anatomy. Journal of the National Medical Association. 1967; 59, # 6. pp. 425.

[146]Young, Moses Wharton. Letter to Wright, Louis T. May 29, 1952. Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Washington D.C.

Frazier, who happened to be drafting, *Black Bourgeoisie*.[147] While viewed as a Black intellectual elite, Frazier had played a pivotal leadership role in Local 440, the Howard Teachers' Union, demonstrating his commitment to organized labor activism and progressive causes. Frazier was "a founding member of the American Federation of Teachers (AFT), Local 440, at Howard. The next year (1937), Frazier became the president of the Local."[148] Under Frazier's leadership, the union transformed into a vehicle for faculty activism that mirrored student progressive movements on campus. Overall, Frazier fundamentally opposed DuBois's vision of Black leadership and so did Young. He accused Black elites of engaging in "conspicuous consumption,"[149] "wish fulfillment,"[150] and a "world of make-believe."[151] After eighteen years at the Medical School, Young was disgusted with how he had been treated by the leadership.

In a study on unhealthy workplace environments, one author found that "the worst workplace stress is not caused by the job but by the managers"[152] This also applied to historically Black colleges (HBCUs), where systematic management problems created widespread stress. A faculty member noted that "administrators at HBCUs must all go to the same school to learn how to brutalize people," suggesting these were not isolated incidents but part of a broader pattern.[153] At HBCUs, employee stress stemmed primarily from dysfunctional management practices rather than the challenges of education itself. Workers faced difficulties not from serving students or advancing education, but from management failures that prevented them from doing their work effectively. Cobb's autocratic style of department governance was reminiscent of McKinney's.

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[147]Frazier, E. Franklin. *Black Bourgeoisie: The Rise of a New Middle-Class in the United States*. The Free Press, Glencoe, Illinois and The Falcon's Wing Press (1957). This offered a class analysis of the Black middle class. Its origin and development, its behavior, attitudes, and values during the 1940s and 1950s.

[148]Holloway, Jonathan Scott. Confronting the Veil: Abram Harris Jr., E. Franklin Frazier, and Ralph Bunche, 1919-1941. University of North Carolina Press, 2003.

[149]Frazier, E. Franklin. (1957). pp. 4, 5, 82, 94, 202, 219, 236.

[150]Frazier, E. Franklin. (1957). pp. 146. Chapter VIII

[151]Frazier, E. Franklin. (1957). Part II. "The World of Make-Believe."

[152]Bass, C. D. "Professors find many workplace environments unhealthy." Tallahassee Democrat. Thursday, May 11. E 1 (2000).

[153]Evans, Adeline L., Virden Evans, and A. M. Evans. "Historically Black Colleges and Universities (HBCUS)." Education 123, no. 1 (2002). pp. 3-16.

Like McKinney, who had denied Young permission to go abroad, Cobb tried to deny Young the opportunity to teach Anatomy in Tokyo, Japan during 1952-53. In writing to Louis T. Wright in September 1952, Young stressed:

> "I was interested in the NAACP regarding the negroes who opposed the white family moving into their neighborhood. It is certainly true we must fight for principles and obviously no race has a monopoly on virtues nor vices. A case in point follows: I was recently presented a Fulbright Scholarship for the school year 1952-1953 by the U.S. State Department. This was the first such offer ever received by this medical school and assigned me as a lecturer to the Anatomy Department of Chiba Medical School in Japan with all expenses paid. Dr. Cobb, the head of my department refused my requested, first leave in 18 years of service here, stating that I did not deserve a leave-of-absence and that I had not demonstrated the qualities that should represent us on foreign soil." "On the other hand," Young continues, "a white Virginian who taught me at Michigan had just the opposite to say."[154]

By 1953, while the anatomy department continued to grapple with inadequate facilities and resources, plans were underway for construction of a new pre-clinical building. In true autocratic style, Cobb would remove equipment from Young's lab without his permission. On October 27, 1953, Young told Cobb, "I ..request the return of the microtome, [and] microscope ..assigned to my research laboratory in order that I might start the departmental and research activities started. I trust you will understand that these are not personal requests but obvious and necessary procedures in the best interest of the Department, the School and the University."[155] By November 6, Cobb replied that, "The microscope and microtome previously assigned you have been returned to your office. In this connection I point out that when you left the premises in September 1952 you failed to comply with the Dean's written request properly to turn over all keys and University property to the Departmental office, but you left with no word of any kind to anyone in authority."[156] Heywood mentions that, "In disobeying Cobb, Young

[154]Young, Moses Wharton. Letter to Wright, Louis T. September 14, 1952. Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Wash. DC.

[155]Young, Moses Wharton. Letter to Cobb, W. Montague. October 27, 1953. Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Wash. DC.

[156]Cobb, W. Montague. Letter to Young, Moses Wharton. November 6, 1953. Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscripts, Moorland-Spingarn Research Center, Howard University, Wash., D.C.

showed himself to be a determined and strong-willed individual and it is possible that these qualities had led to earlier clashes with Cobb who retaliated by denying approval of Young's sabbatical leave."[157] Heywood even observes that, "It is ironic that during the very time that African American academics faced such challenges of recognition within their fields that Young did not receive the whole-hearted support of his departmental chair." Despite these institutional challenges, Young's colleagues were busy working on the "New Building Committee," with faculty members like Cobb taking an active role.

As part of the "New Building Committee," Cobb wrote to Dean Joseph L. Johnson, that he had "gone over separately and with Drs. McKinney and [Ruth] Lloyd, the set of plans for the new pre-clinical building" with the architect firm for lab space allocation.[158] While the Committee did make efforts to get faculty input through various means (Dean's Memoranda, Department Head consultations, and Building Managers), Young was not directly included in the meetings themselves. By 1957 with near completion of the new pre-clinical building, the Committee held a meeting on July 26 to discuss lab space allocation. "Dean Jason reported that he had received a communication from Dr. M.W. Young indicating that he was not satisfied with the space assigned him for Research on the first floor. It was his understanding that the Committee had agreed that Anatomy would not be assigned additional space on the fourth floor for Research or Office since it had ample space for such activities within their area on the first floor."[159] Young wanted clarification on whether the fourth floor would be available for his research projects. Committee member, Hawthorne advised that one of the Cold Rooms would be

[157]Heywood, P. (2018). pp. 25

[158]Cobb, W. Montague. Letter to Dean Joseph L. Johnson regarding new building plans with Justement, Elam & Darby (Architectural firm). July 27, 1953. Moses Wharton Young Personal Papers, 1904–1986. Box 1. New Building Committee Folder. Manuscripts, Moorland-Spingarn Research Center, Howard University, Washington, DC.

[159]Young, Moses Wharton. "New Building Committee, Dr. Wharton Young, M.D." (1953). Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Washington D.C.

made available to Young for his research projects. Rather than exclusion, this Committee meeting appeared to have taken Young's concerns seriously. On March 15, 1958, just five months before the new pre-clinical building would be dedicated in September, Dean Robert S. Jason wrote that, "The fourth floor of the building was set aside for research."[160] However, the research facilities for Neuroanatomy was allocated on the first floor and no mention of research space for neuroanatomy on the fourth floor. By July 1958, Young was jaded. He wrote, "the situation here at Howard grows worse by the month and I have at long last decided to leave. I really regret having turned down the offer made to me by the Chicago Medical School where I worked in Summer of 1956."[161] Young was stuck and in the following years, the new building didn't change relations between himself and Cobb. One of the issues Young had with Cobb is how he taught students.

Among the items in Young's personal archive was a textbook, "*What is Man*," written by Cobb.[162] Sandwiched between its pages was a note written by Young addressed to Michael R. Winston, (Moorland-Spingarn Research Center, Director, 1973-1983).[163] "Dear Michael," Young wrote, "This copyrighted book was recommended as the standard textbook for our medical students – instead of Gray's Anatomy.[164,165] I was able to block this effort. If you will merely check the page sequences you will get a good idea as to its accuracy." Young went on to explain

[160]Jason, Robert S. "Pre-Clinical Medical Building." Howard University Bulletin. Published by The Office of Public Relations, Howard University, Washington, D.C. Vol. XXXVI, No. 17. March 15, (1958). pp. 14-16

[161]Young, Moses Wharton. Letter to L.H. (Chicago Medical School). July 1, 1958. Moses Wharton Young Personal Papers, 1904–1986. Box 1. Correspondence Folder. Manuscript Division, Moorland-Spingarn Research Center, Howard University, Washington D.C.

[162]Cobb, W. Montague. *What is Man: Synopses of Lectures on Human Anatomy*. Washington, DC: Howard University (textbook). (1935)

[163]Staff, Editorial (1990) "86 Years of Service To Howard University," New Directions: Vol. 17: Issue. 3, Article 4.

[164]Hirsch, Bruce Elliot. "Gray's Anatomy: the Anatomical Basis of Clinical Practice." Journal of the American Medical Association. 301, no. 17 (2009): pp. 1825-1831.

[165]Ghosh, Sanjib Kumar, and Ashutosh Kumar. "The Rich Heritage of Anatomical texts during Renaissance and thereafter: a lead up to Henry Gray's Masterpiece." Anatomy & Cell Biology. 52, no. 4 (2019): pp. 357-368.

that, "About the same time another Howard teacher published a book; "The Biology of the Cell,"[166] which is a near perfect publication in every respect for the author was Ernest E. Just, Professor of Zoology. I have never found a typographical error in this book and I would recommend that everyone read the Preface & Introduction." At the end of the letter Young recommends Just's book for Moorland-Spingarn's "Collection of Rarebooks." In writing to Winston, Young not only showed Cobb's textbook to be inferior, he showed that medical students were not getting the best anatomy lecture material, an issue he had been passionate about since he had taken the National Medical Board Examinations back in June 1931.

When Young took his National Board Medical exams in 1931, he identified how underprepared he was. Young sincerely cared about students learning pre-clinical sciences so they can perform well on the boards. But after thirty-five years, Howard Medical School still had a high failure on the National Boards. In his attempt to improve Howard's national standing on the Medical Board exams, Young mentioned that:

> "when James M. Nabritt became President [of Howard University] in 1960, he personally attended our faculty meeting and admonished the Dean and faculty to 'Get Howard off the Bottom,' but five years later (Journal of the American Medical Association, June 7th 1965),[167] we still maintained the highest failure rate of any medical college in the United States. Among the 84 medical colleges, we ranked 84th, with 50% more failures than Meharry on the State Boards. This year, 1966 [Howard's Centennial Year] we increased our failures by 1/3 in a single year and on our National Medical Board, scores show failure rates above 80%. These recorded results may well raise the question whether we can in-fact operate an institution that is dedicated and devoted solely to the 'teaching and research' of medicine."

On October 1966, Young wrote that '". . the record of our school in both teaching and research leaves much to be desired."[168] In 1969, Student protest leader Ewart Brown explained: "We

[166]Just, Ernest Everett. *The Biology of the Cell Surface*. Publisher. Presley Blakiston's Son & Company, Philadelphia, Pennsylvania. (1939).

[167]Wiggins, WS. Medical Licensure Statistics for 1964: Sixty-Third Annual Presentation of Licensure Statistics by the Council on Medical Education of the American Medical Association. Journal of the American Medical Association. (June 7th, 1965). 192 (10): pp. 855–904. Note; See the "Appendix Table 1 – Candidates Examined by Medical Licensing Boards, 1964" for "Howard University" on pp. 880-881.

[168]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

determined early in the game that one of the reasons for that, particularly in anatomy, was that students weren't given the material that would ultimately appear on the Boards." Brown noted, "So you'll find that most of my classmates will remember Dr. Cobb in terms of the theatrics—playing the violin while we dissected cadavers, offering $10 to anybody who could remember the source of a quote."[169] According to Brown, Cobb's lectures included "quotations from the Bible or Shakespeare or the classics or whatever; his own reflections on history or philosophy or sociology or current events, or whatever; and his miscellaneous comments on subjects ranging from the structure of Jesse Owens' heel bone (again) to sexual practices through the ages."[170] Cobb's condescension, if unintended was felt. Brown contended that "It was the way he ran the department, though [what] most concerned us. He was the responsible leader of the anatomy department, charged with providing students with an adequate curriculum. And we found out he hadn't had a faculty meeting in years." In 1969, Cobb was forced to step down from his position as Anatomy Chair after first-year medical students boycotted his classes. Interestingly enough, Young's brother Weldon, had waged a similar battle when he got more Black men in St Louis, Missouri, to successfully pass examinations to obtain engineer's licenses.[171]

[169]Scarupa, Harriet Jackson. "W. Montague Cobb: His Long, Storied, Battle-Scarred Life." New Directions 15, no. 2 (1988): 2.
[170]Scarupa, Harriet Jackson. (1988).
[171]Young, Frank Weldon. In "Lift Every Voice and Sing: St Louis African-Americans in the 20th Century." Wesley DA. [Editor]. University of Missouri Press, Columbia, MO. 1999. pp. 29. Weldon said, that "no white man would sign the application of a Negro" for engineer's license. And that "early in the fifties I got our union, the International Union of Operating Engineers, Local No. 2, to start an integrated training program to train men to pass the examination to obtain a license."

CHAPTER 6

CONCLUSION

Young's journey—from Howard student during the crisis years, to recognition of institutional deficiencies through national examinations, to advanced training at Michigan, and return to Howard as faculty—embodies the fact that he achieved more recognition with less resources compared to colleagues at richly resourced non-Black Medical Schools. Despite facing undeniable racial barriers—such as hotel accommodation discrimination—Young achieved significant recognition for his neuroanatomy research, foundational work on blast injuries, and international honors like the Fulbright Professorship and the S. J. Joshi Gold Award. In 1975, the U.S. Pentagon said, "his work on blast pathophysiology was so original and scientifically sound that it became the framework for all subsequent medical research regarding blast injuries."[172] While racism posed real obstacles for Black scholars of his era (before the legal end of segregation),[173] the notion that Young's work was systematically neglected due to his race oversimplifies the evidence. His recognition varied with the quality and rigor of his research: high-quality studies, such as his work on the rabbit telencephalon and blast injuries, earned arguably appropriate citations, whereas other works faced criticism for methodological limitations or unsubstantiated theories. Institutional conflicts within Howard University and disciplinary biases also influenced his academic reception, suggesting that his challenges were not solely race-driven. Reception of Young's academic contributions shows he concurrently experienced a ratio of discrimination and appreciation throughout his career, depending on the specific audience and institutional context. His research efforts experienced both deep appreciation and severe neglect from Howard Medical School's administration who self-

[172]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."
[173]Brown v. Board of Education, 347 U.S. 483, 74 S. Ct. 686, 98 L. Ed. 873 (1954).

identified as Black. Young's academic contributions revealed the broader pattern of faculty micromanagement. In 1939, Young's case victory was an early example that proved faculty unions successfully challenged unilateral administrative decisions through political and legal channels. This intersectional lens is absent from Heywood's analysis. McKinney, Dean Adams and Cobb feared Young's independent mindset because they feared losing institutional control by faculty organizing. For example, the Morris Schappes case at City College New York in 1936 exemplified why administrators feared faculty organizing. Schappes' dismissal exposed what Schrecker calls the university's "semi-feudal employment practices," where job security depended on administrative favor rather than transparent criteria.[174] Despite over five years of teaching, Schappes, like Young, lacked formal tenure, leaving him vulnerable to arbitrary dismissal.

Young's career underscores the fact that scientific recognition hinges on multiple elements—methodological rigor, strategic publication, institutional support, and networking within specialized fields. His experiences reveal that while racial prejudice was a significant hurdle, his professional struggles also stemmed from administrative dynamics and personal conflicts, not just societal bias. His most acclaimed work, often conducted under mentors at the University of Michigan, points to the critical role of institutional affiliation and mentorship in amplifying recognition. For example, one of Young's Howard colleagues, Herman Branson, experienced societal bias in media coverage and personal conflict with Linus Pauling—a founder of quantum chemistry and molecular biology. "Branson believed that he had not received sufficient credit for the discovery of the alpha and gamma helices."[175] He was "particularly

[174]Schrecker, Ellen W. No Ivory Tower: McCarthyism and the Universities. Oxford University Press, New York. (1986). pp. 5

[175]Goertzel, Ted George, and Ben Goertzel. "Linus Pauling: A Life in Science and Politics." Basic Books, Harper Collins. New York, NY. (1995). Pauling listed Branson as a coauthor on the paper detailing the discovery, and acknowledged Branson's assistance in his 1970 Daedalus article, "Fifty Years of Progress in Structural Chemistry and Molecular Biology." For more analysis see; Eisenberg, David. "The discovery of the α-helix and β-sheet, the principal structural features of proteins." Proceedings of the National Academy of Sciences 100, no. 20 (2003): pp. 11207-11210.

angry"[176] upon reading a news story in the Pasadena StarNews titled "Secrets of Proteins Uncovered: Two Caltech Chemists Untangle Building Blocks of Life."[177] It featured Pauling and Corey as the main discoverers, relegating Branson to a brief mention as someone who merely "assessed Dr. Pauling's work."[178] Branson resented this characterization until his death in 1995, even claiming that Corey had no involvement in the discovery.[179] This case exemplifies the ongoing challenge of fairly crediting scientific discoveries and how media coverage can shape historical narratives at the expense of overlooked contributors. Back in the 1950's, Branson's criteria may be best suited to assess Young's contributions. Branson says, a Black "scientist shall be considered to be doing or to have done significant work if he has published or is publishing research articles in recognized scientific periodicals of international circulation, or if he is working as a scientist in the basic or developmental research laboratory of a major industry."[180] Ultimately, Young's academic contributions transcend a singular narrative of 'academic racism,' reflecting instead a scholar who navigated a challenging landscape with talent, determination, and a commitment to Howard University.

Despite his struggles with faculty and administration, Young's enduring commitment to Howard was relentless. He possessed a keen sense of history and what it meant to build a strong institution for learning. He wrote to the Gamma Chapter of the Alpha Omega Alpha Honor Medical Society in 1981 making reference to M.O. Dumas and reasons for continued support. He said, "I won the Dumas Prize in 1930 and following the death of Dr. Dumas, I re-established the award (anonymously) and continued to finance and support the award each year. My last year

[176]Goertzel (1995). pp. 97 and 98.
[177]Ava Helen and Linus Pauling Papers, 1873-2013. Newspaper Clipping: "Secrets of Proteins Uncovered," Pasadena (California) Star-News, September 4, 1951.
[178]Pauling, L., Corey, R. B. & Branson, H. R. (1951) Proceeding of the National Academy of Science. USA 37, pp. 205–211
[179]Goertzel (1995). pp. 97 and 98
[180]Branson, Herman. "The Negro And Scientific Research." *Howard University, Department of Chemistry Faculty Publications*. Paper 19. (1952).

on the faculty was 1973, which was the semi-centennial of the Dumas Prize and I raised $1000.00 for the 1973 Dumas Prize Award. I have continued my support from my personal funds each year including 1981."[181] What Young hadn't mentioned was mentioned–many years later–by Kenneth Manning during a talk at Howard. Manning said, "I remember spending many hours in the cold house of M. Wharton Young, a neuroanatomist, right around the corner from here. I used to say, why doesn't he turn up the heat? I mean, it would be so cold, so cold. He was telling me how he was trying to save money. . . He got fixated on the inner ear, which he was working on. When he died, he left Howard University a lot of money, and I'm sure it was from what he saved by turning down the heat."[182] In 2010, twenty four years after Young's death, the Medical School "received $600,000 from the Estate of M. Wharton Young to fund the M. Wharton Young Endowed Chair."[183]

[181]Young, Moses Wharton. June 1939. "Young's reply to dismissal. Howard University Recommendation..."

[182]Manning Kenneth, R. "Reflections on E. E. Just, Black Apollo of Science, and the experiences of African American Scientists." Molecular Reproduction and Development. (2009). 76: pp. 897–902.

[183]Howard University. "M. Wharton Young Endowed Chair Receives a Boost from Namesake." Financials. Alumni Respond to Alma Mater. Office of the President Annual Report. 2010-2011 Fiscal Year ended June 30, 2011. pp. 42.

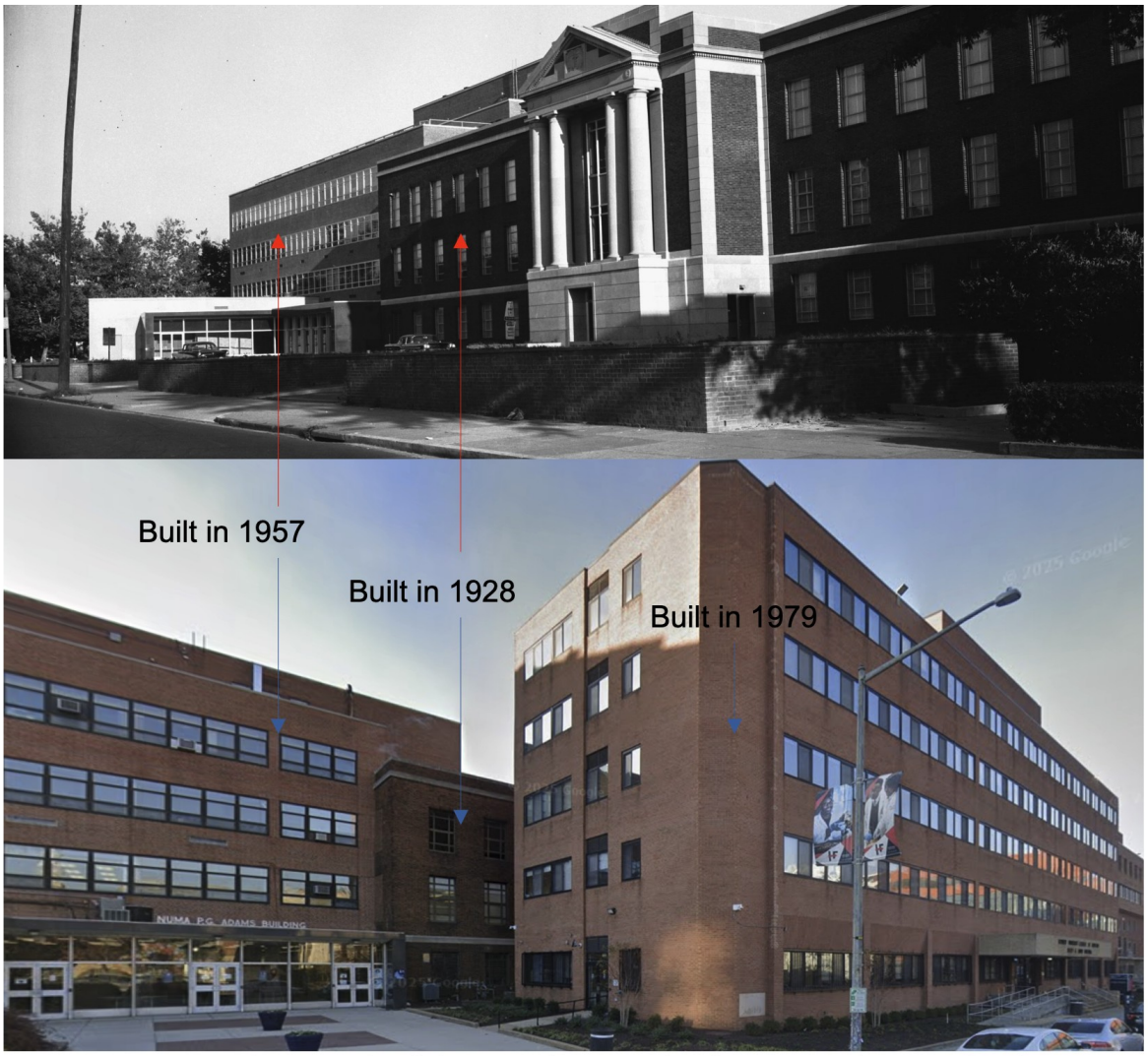

Figure 6. Pre-Clinical Bldg (1957), Old Medical School Bldg (1928), New Medical School Bldg (1979).

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