

## ***Resolving Conflicts***

*Howard Stidham Brode's secularizing influence on Whitman College's Biology Department through his opinion about the relationship between science and religion*

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Secularization of Whitman College

### **I. Introduction**

Upon its publication in 1859, Darwin's *Origin of Species* reopened the debate about the relationship between science and religion. In contrast to fundamentalist intellectuals and religious leaders who agreed that the theory of evolution contradicted biblical truths about the origin of man, Howard Stidham Brode and Edwin Grant Conklin were among a group of biology professors, intellectuals, and religious people who interpreted the relationship between biological findings and biblical truths differently. Brode and Conklin argued that evolution did not conflict with Protestant beliefs. Instead, the modern method of acquiring knowledge used in all education—the scientific method—conflicted with dogmatic medieval method of inquiry that religion had adopted.

As Brode brought evolution to the religiously-affiliated Whitman College, the biology department followed a similar trend of secularization that Rueben describes in her book, *The Making of a Modern University*. By pushing out dogmatic methods of inquiry while adopting the modern scientific method, Brode, like other educators, continued to uphold the belief that religion and science had potential to harmoniously coexist. Even though he acknowledged that religion and science could coexist, Brode pushed discussions relating religion and science out of the classroom. Brode did not eradicate conversations about religion in the biology; instead, he moved to facilitate them outside to the classroom. As religion was no longer in the classroom to establish moral character in students, Brode's instruction in biology and his model character

continued to promote morals into students. Out of an attempt to remove dogmatism from science's methods of inquiry, Brode largely removed religion from the biology department despite his belief that science and religion could be compatible. Although religion did not inherently conflict with evolution, it was displaced from the classroom as instruction in biology and Brode's model character continued to promote morals previously instilled by Christianity.

## II. H.S Brode in Context

Historians generally agree that people do not often hold opinions in isolation, but people's ideas are influenced by the historical and cultural context.<sup>1</sup> Before exploring Brode's opinion about relationship between science and religion and his influence on the Whitman College Biology department, it is important to consider the educational and religious background that shaped him to become a professor at Whitman College.

After growing up in Illinois, Brode graduated from the state normal school in 1888 and then completed a his Ph.D. in zoology at the University of Chicago under C.O. Whitman, founding director of the Woods Hole Marine Biological Laboratory whose own research on pigeons contributed to the theory of evolution.<sup>2,3</sup> C.O. Whitman believed that students should not be treated a school boys or consumers of knowledge. Instead, they should be put to work doing research so that they could be generators of scientific knowledge.<sup>4</sup> By establishing the MBL at Woods Hole, Whitman pushed students to engage in active research and open inquiry. As a student, C.O. Whitman taught Brode to use the scientific method of inquiry that Brode would later defend and promote at Whitman College. C.O. Whitman had very high opinions about

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<sup>1</sup> J.W. Atkinson, "E.G. Conklin on Evolution: The Popular Writings of an Embryologist," *Journal of the History of Biology*, 18, no. 1 (Spring 1985): 34, <http://www.jstor.org/stable/4330919>.

<sup>2</sup> Robert Brode. "Howard Stidham Brode." [http://bobbrode.net/brode\\_tree\\_portraits/Howard\\_S\\_Brode\\_bio.html](http://bobbrode.net/brode_tree_portraits/Howard_S_Brode_bio.html).

<sup>3</sup> "Guide to Charles Otis Whitman Collection." University of Chicago Library, 2006.

<http://www.lib.uchicago.edu/e/scrsc/findingaids/view.php?eadid=ICU.SPCL.WHITMANCO>.

<sup>4</sup> Jane Maienshein, "Whitman at Chicago: Establishing a Chicago Style of Biology?" In *American Development of Biology; Philadelphia: University of Pennsylvania Press, 1988*, 158.

Howard Brode and recommended him to President Penrose as a candidate for the professorship of biology saying Brode “was the best man in Biology he had ever known.”<sup>5</sup>

As a student and a professor, Brode was immersed in a changing scientific environment. The appearance of the *Origin of Species* in 1859 catalyzed change in the principles of scientific knowledge and method. Before 1859, a majority of scientists used a method of inquiry rooted in Baconianism, an inductive method of careful observation of nature.<sup>6</sup> Through observation, scientists uncovered laws of nature that left little place for speculation. Because Baconians emphasized the value of the generating knowledge with certainty, they strongly discouraged the use of hypothesis in the pursuit of new knowledge.<sup>7</sup> When Darwin proposed his theory of evolution based on a plausible explanation for the origin of life without citing any observational evidence rooted in certainty, Darwin’s methodology directly challenged the established scientific method of inquiry.<sup>8</sup>

In addition to challenging the previous methodology of scientific inquiry, Darwin’s theory challenged the harmonious relationship between religion and science. Under the Baconian method, inquirers gained knowledge about God as they studied the nature.<sup>9</sup> Scientists reasoned that since the world was a divine construct, they reasoned that the knowledge about nature was directly linked to knowledge about its creator.<sup>10</sup> Under the Baconian model, scientific research was just as much of an act of spiritual devotion as praying or reading the Bible.<sup>11</sup> While the relationship between religion and science was not always cordial when scientist arrived at conclusions that seemed irreconcilable with the dominant views of the Bible, Julie A. Rueben

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<sup>5</sup> Thomas Edwards. *Triumph of Tradition*. Walla Walla: Board of Trustees of Whitman College, 1992, 183.

<sup>6</sup> Theodore Dwight Bozeman. “Summary and Concluding Reflections.” *Protestants in the Age of Science*. (Chapel Hill: University of North Carolina Press, 1977), [http://books.google.com/books?id=Ki09IzBd3fYC&printsec=frontcoce=gbs\\_ge\\_summary\\_r&cad=0#v=onepage&q=since%20the%20natural%20world%20&f=false](http://books.google.com/books?id=Ki09IzBd3fYC&printsec=frontcoce=gbs_ge_summary_r&cad=0#v=onepage&q=since%20the%20natural%20world%20&f=false).

<sup>7</sup> Julie A. Rueben, “Religion and Science Reconceived.” *The Making of the Modern University*, (Chicago: University of Chicago Press, 1996), 37.

<sup>8</sup> Croce, Paul Jerome. “Probabilistic Darwinism: Louis Agassiz vs. Asa Gray on Science, Religion, and Certainty.” *Journal Of Religious History* 22, no. 1 (February 1998): 44.

<sup>9</sup> Bozeman, “Summary and Concluding Reflections

<sup>10</sup> Rueben, “Religion and Science Reconceived.” 39.

<sup>11</sup> Bozeman, “Summary and Concluding Reflections.

explains that scientists often joined with religious leaders in arguing that knowledge that God revealed in nature and scripture were harmonious when the two sources were properly interpreted.<sup>12</sup> Before Darwin published the *Origin of Species*, the ties that joined faith and nature were inseparable. When Darwin proposed a scenario for the development of species that did not include the active guidance of divine Providence, people within the religious community perceived that Darwin theory refuted the existence of God and was directly opposed to Christian beliefs.

Sentiments of anti-evolutionism were especially high beginning in 1920's. During this decade, Brode closely followed the debate in the news. The brutality inflicted during World War I in the name of the theory of evolution caused a rise in the number of religious people who thought the theory of evolution was immoral and irreconcilable.<sup>13</sup> Fundamentalists like Reverend W.A. Williams called for school administrators to withdraw topics of evolution from college and high school curriculum because such education caused students to become atheists.<sup>14</sup> Fundamentalists followed W.A. William's belief that the Bible was the literal authority in all matters and any scientific knowledge that contradicted the Bible was antireligious. Despite calls to remove evolution from curriculum, Brode continued to teach the principles of evolution and the scientific method at Whitman College while remaining active in the religious community.

During his time at Whitman College, Brode was an active member of the Methodist Church. According the Union Bulletin, Brode was "a prominent figure in religious ... activities in Walla Walla."<sup>15</sup> As a Methodist, Brode was a part of a larger group of believers who were united in the understanding that the theory of evolution did not challenge their evangelical

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<sup>12</sup> Roberts, Jon H. and James Turner. "Religion, Science and Higher Education." *The Sacred and Secular University*. Princeton: Princeton University Press, 2000. 25.

<sup>13</sup> Atkinson, 34.

<sup>8</sup> Rev. W.A. Williams, "Sample Pages from Evolution Disproved," Box 5. Sample Pages From Evolution Disproved Folder, Howard Brode Papers, WCMss121, Whitman College and Northwest Archives.

<sup>15</sup> "Death Takes Dr. H.S. Brode, Long on Whitman's Faculty. Dec 16, 1955. Walla Walla Union Bulletin.

beliefs. In the years following the publication of the *Origin of Species*, the *Methodist Quarterly Review* did not voice opposition to the Darwin's theory. According to David C. Grant, even though the *Review* was not yet persuaded that theory of evolution was scientifically valid, the magazine emphasized the belief that if the theory were true, it would not challenge evangelical faith.<sup>16</sup> Although fundamentalists upheld the belief that evolution was antireligious, Brode agreed with other Methodists believers who believed that evolution did not conflict with religion.

In a time when the scientific community experienced dramatic changes in its principles and methodology, Brode's education as a teacher and biologist and his affiliation with the Methodist Church shaped his opinions about the relationship between biology and religion.

### **III. H.S. Brode and E.G. Conklin's Conception about the Evolution-Religion Relationship**

In his essay entitled "Evolution, What it is and What it is not," Brode further articulates his reasoning for his opinion about the relationship between science and religion. Because biblical observations cannot appropriately explain the development of life, Brode asserts that science establishes a more valid explanation of how life developed. Contrary to popular belief, Brode claims that the scientific explanation of the development of life does not inherently conflict with religion's explanation. While religious people who follow the medieval method of inquiry will continue to oppose evolution and other educational content, Brode argues that religion has a choice to be harmonious with science and education by acknowledging the validity of the scientific method.

As Brode frames his argument, he quotes a passage from Edwin Grant Conklin's essay published in 1922 entitled "Evolution and the Bible." In Conklin's paper, he criticizes those who believe that the theory evolution is unbiblical and invalid. Brode parallels Conklin's arguments as he addresses the misconception that the theory of evolution conflicts with religion. Because

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<sup>16</sup> David C. Grant, "Evolution and Darwinism in the Methodist Quarterly Review, 1840-1870," *Methodist History*, 29, no. 3 (1991): 178-182.

Brode frames his argument with Conklin's previous works, it is likely that Brode agreed with much of Conklin's philosophy about the harmonious relationship between science and religion. Conklin and Brode both came from Methodist religious background and were interested in the studying zoology when receiving their doctorate degrees.<sup>17</sup> Like Brode, Conklin was a first teacher and then returned to graduate school after sparking an interest in biology.<sup>18</sup> In the same way that Brode sought make the findings of science relevant to the greater community, Conklin wrote many popular works and gave over one thousand public lectures on the topic evolution for the public.<sup>19</sup> As both came from similar educational and religious backgrounds, these two scientists formed similar opinions about the relationship between their faith and their scientific work. Additionally, they assumed similar roles as public advocates who spoke about the relationship between religion and science. In the next part of this paper, I will establish Brode's philosophy about the relationship between religion and science by looking at his writings and the works by Conklin that resonate with Brode's opinions.

As Brode begins to explain the relationship between science and nature, he first establishes that the theory of creation is less valid than the theory of evolution because the theory of creation is based off observations about nature from the Bible. Because the biblical observations written by primitive people about the development of life are erroneous, Brode argues that such observations cannot be a foundation for a valid theory. He writes, "primitive people who lacked knowledge of the real nature of the world and man could scarcely be expected to give explanations of phenomena which would prove satisfactory to people of today who have learned many things about nature and man."<sup>20</sup> Brode argues that statements about development

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<sup>17</sup> Harvey, E. Newton. *Edwin Grant Conklin 1963-1952*. National Academy of Sciences: Washington D.C, 1958, 56.

<sup>18</sup> *Ibid.*, 61.

<sup>19</sup> "Edwin Grant Conklin." *Thirteen Americans: Their Spiritual Autobiographies*. The Institute for Religious and Social Studies: New York, 1953.

<sup>20</sup> "Evolution, What it is and What it is Not," Box 8, W.J Bryan and Evolution Folder, Howard Brode Papers, WCMss121, The Whitman College and Northwest Archives.

of life in the Bible are erroneous because primitive people had a much more limited knowledge about the world. Because a theory is an interpretation of fact, a theory like creationism that is based on erroneous facts is invalid.

While Brode asserts that biblical observations cannot be the foundation for knowledge about nature, Brode explains that these biblical passages about creation do not inherently oppose biological knowledge. Therefore, religion does not necessarily oppose evolution. As they outline the harmonious relationship between religion and science in their essays, both Brode and Conklin emphasize that early church fathers like Augustine gave an evolutionary interpretation of the first chapter of Genesis.<sup>21,22</sup> By emphasizing that prominent religious leaders interpreted the Bible in a way that was harmonious with concepts of evolution, Brode and Conklin acknowledge that religion does not inherently conflict with evolution.

Conklin further argues that the Bible should not be studied literally. According to Conklin, “The first chapter of Genesis gives, not a literal and scientific account of creation, but a poetic and symbolic account.”<sup>23</sup> Brode, although he does not explicitly voice this opinion about the Bible’s poetic nature, collected a pamphlet that reiterates Conklin’s reasoning.<sup>24</sup> By understanding that the biblical account of the formation of life is poetic, Conklin recognizes the Bible can be interpreted in multiple ways. Conklin claims that any position that holds that the Bible is an exact account of the formation of man is inappropriate. Conklin argues, “More than anything else, it is extreme literalism in the interpretation of religious symbols which has caused

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<sup>21</sup>Edwin Conklin, *The Direction of Human Evolution*, (New York: Charles Scribner's Sons, 1922) [http://books.google.com/books?id=fIRAAAAYAAJ&printsec=frontcover&dq=The Direction of Human Evolution&hl=en&sa=X&ei=8YenUtKHF4jwoASIsYDQDw&ved=0CDoQ6AewAA](http://books.google.com/books?id=fIRAAAAYAAJ&printsec=frontcover&dq=The+Direction+of+Human+Evolution&hl=en&sa=X&ei=8YenUtKHF4jwoASIsYDQDw&ved=0CDoQ6AewAA). 207.

<sup>22</sup>“Evolution, What it is and What it is Not,”1.

<sup>23</sup> Conklin, *The Direction of Human Evolution*. 206.

<sup>24</sup> “In the Beginning God,” *Popular Religion Leaflets*, 1957, Box 8, Folder 2, Howard Brode Papers, Whitman College and Northwest Archives. In the pamphlet it says ““Any attempts...to treat these highly poetical descriptions of Creation as through they were railroad timetables will inevitably invite disaster to our faith, in these days when science is disclosing the pathways of God in the universe” (30).

the conflict between science and religion.”<sup>25</sup> Conklin explains that having fundamentalist interpretation of the Bible causes the current perception of the conflict between religion and science. With a more modernist interpretation of the Bible, no conflict between evolution and religion exists.

In addition to arguing that evolution does not conflict with a modern interpretation of the Bible, Brode and Conklin further argue that evolution does not discredit the belief in the existence of God. Conklin argues that evolution “neither affirms nor denies the existence of God; it deals only with processes and does not profess to touch the question of ultimate causation.”<sup>26</sup> In the same way, Brode challenges the claim that those who accept the theory of evolution are to be classed as atheists.<sup>27</sup> Conklin explains the evolution only explains the way that man developed from other life forms; it does not explain how the first life form came into existence. While science can explain parts of nature in a more valid way than religious texts, Conklin acknowledges that science has a limited scope and cannot refute religion’s claim in the existence of God. Brode and Conklin’s assertion that evolution cannot deny the existence of God further supports their argument that evolution does not conflict with religion.

As Brode further articulates that religion does not inherently conflict with evolution, he develops his argument by redefining the perceived conflict. When describing the conflict Brode writes, “The objection is not primarily an objection to evolution, but rather to the scientific mode of thinking, which is pervading all modern education and differs in some important ways from the medieval mode of thinking.”<sup>28</sup> Brode explains that the conflict is actually between two methods of inquiry: scientific and medieval, not two bodies of knowledge. In making this distinction, Brode shows that such conflict can be resolved.

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<sup>25</sup> Conklin, *The Direction of Human Evolution*. 180.

<sup>26</sup> Conklin, *The Direction of Human Evolution*. 210.

<sup>27</sup> “Evolution, What it is and What it is Not,” 6.

<sup>28</sup> “Evolution, What it is and What it is Not,” 6.



By exposing the weaknesses of the medieval mode of thinking and the strengths of the scientific method, Brode establishes that religion ought to accept the validity of the scientific method and abandon the medieval method. In doing so, no conflict between evolution and religion will exist. Because a thinker who follows the medievalist method accepts knowledge based on faith in the authority of the person who establishes it, this is a dogmatic method and does not necessarily establish the truth. Instead, it has potential to firmly establish false belief. In contrast, Brode explains the strengths of the scientific method by writing, “The modernist seeks the facts... and then sits down before them and endeavors to interpret them. He is open minded and is willing to go where the facts lead.”<sup>29</sup> Brode emphasizes that the scientific method is not influenced by preconceived notions that may be false. Instead the scientific method yields theories based on facts. Because this method has an ability to establish knowledge with greater certainty, the scientific method ought to be adopted in all areas of knowledge, including religion.

Not only did Brode’s essay outline his disapproval about the dogmatic medieval method of inquiry, Brode was recognized in the community for his undogmatic approach to gaining knowledge. In describing Brode to his family and friends gathered to commemorate his 50<sup>th</sup> wedding anniversary, Brode’s former pastor Dr. Raymond C. Brooks explained that Brode “was able to avoid dogmatism in both science and religion.”<sup>30</sup> Throughout his life, Brode did not accept the validity of dogma when pursuing knowledge. Instead, Brode argued for the use of the scientific method in all disciplines. Brode argued that by rooting out the dogmatic medieval method from all areas of knowledge and accepting the open-minded scientific method, religion harmoniously coexisted with education and evolution.

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<sup>29</sup> “Evolution, What it is and What it is Not,” 7.

<sup>30</sup> “Golden Wedding Anniversary,” Howard Brode Papers, Box 6, Folder 11, WCMss121, Whitman College and Northwest Archives.

Conklin expresses sentiments that resonate with Brode's opinion that the religion ought to accept the scientific method of inquiry. In the same way that Brode asserts that religion has the ability to resolve the conflict between evolution by adjusting its method of interpreting facts, Conklin firmly calls the church to acknowledge their agency in making amends with science. In a conclusion to a speech in front of a Methodist congregation Conklin explains, "It is the duty of a progressive theology to relate this [scientific] knowledge to the old faith."<sup>31</sup> Conklin asserts that religion must accept the scientific knowledge acquired through the scientific method and adjust its interpretation of the Bible accordingly so spiritual interpretations and understandings about the natural world are harmonious.

The way that Brode and Conklin reasoned that there was no conflict between religion and science was similar to how a larger body of scientists came to believe that science and religion were harmonious. According to Rueben, these intellectuals in the late 19<sup>th</sup> and early 20<sup>th</sup> century argued that while there was no conflict between religious and scientific truth, there was a conflict between the openness of the scientific method and the dogmatism of theology.<sup>32</sup> By redefining the conflict, intellectuals could challenge dogmatism without being antireligious. While Brode did not distinguish between religion and dogmatic theology to explain his opinion that religion and science were harmonious, the way that scientists defined dogmatic theology is synonymous to how Brode defined the medieval method in essay "Evolution, What it is and What it is Not." Rueben explained that dogmatic theology was a method of inquiry that yielded an interpretation of the Bible laid down by an authority whose truth was not questioned. Intellectuals who made the distinction between religion and theology argued, "If religion would rid itself of dogmatic

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<sup>31</sup>Jane Maienschein, *Transforming Traditions in American Biology, 1880-1915*, Baltimore: Johns Hopkins University Press, 1991. 215

<sup>32</sup>Rueben. "Religion and Science Reconceived." 51.

theology, science and religion would be harmonious.”<sup>33</sup> Therefore, Brode was among a larger body of intellectuals who believed that as long as religion accepted the validity of scientific method and rid itself of the closed-minded method of establishing knowledge through theological dogma, science and religion would be harmonious.

Brode’s opinion that religion and science were harmonious is not only apparent in his arguments that he expressed in his essay. His dynamic involvement in the scientific and religious community also reveal his opinion about the harmonious relationship between religion and science. By looking at the Brode’s life activities, it is apparent that Brode’s professional life as a professor who taught evolution did not stifle his commitment to religious activities outside of the classroom. While a biology professor, Brode not only remained an active member in the local Methodist church, he also assumed church leadership roles. In recounting his father’s extracurricular activities, Malcolm Brode explains that his father faithfully assumed the role of the superintendent for Sundays Schools for over thirty years and served positions such as Clerk of the Church, Social Service Commissioner, Trustee, and Leader of Men’s and Young Men’s Classes.<sup>34</sup> Brode’s way of remaining active in the religious community is likely how community members began to call Brode “the salt of the earth.”<sup>35</sup> According to memories of a family friend, Brode was not only a prominent religious figure in the community; he was also the religious leader of his family. Rod Bunnell recalls one weekend when the Brodes and his family were on vacation together, Dr. Brode conducted a religious service for the two families since they were too far from any church.<sup>36</sup> As Brode continued to teach evolution at Whitman College, he did not weaken his involvement in the religious activities. Therefore, his opinions about the relationship

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<sup>33</sup> Ibid., 51.

<sup>34</sup> “Golden Wedding Anniversary.”

<sup>35</sup> Ibid.

<sup>36</sup> “Memories of the Brodes,” July 2002, Box 11, Brode, J. Stanley Folder, Howard Brode Papers, WCMss121, Whitman College and Northwest Archives.

between religion and science written in his essay are also visible in his actions. His religious and scientific activities throughout his time in Walla Walla did not conflict or contradict each other. Instead, his activities related harmoniously just as he believed that religious and scientific knowledge could.

In their essays that expressed similar opinions about the relationship between religion and science, Conklin and Brode argued that evolution does not inherently conflict with religion. As soon as religion would accept the validity of the scientific method and acknowledged the weakness of the dogmatic medieval mode of inquiry, religion would no longer stand in opposition against the evolution. Brode's activities as an active member of the Methodist church and as a biology professor further demonstrated his opinions about the harmonious relationship between religion and science.

As an educator who held the opinion that religion and evolution were harmonious in a time when there was a significant amount of outcry against evolution, Brode became a public advocate for evolution. He ensured that the public had a proper perception of the validity of evolution and communicated that religion had an ability to coexist with evolution. In the following section, I will explore Brode's role in monitoring and shaping the student and community members' perception about evolution and its relationship with religion.

#### **IV. Brode's Role in Shaping Perceptions about Evolution in Walla Walla**

As a biology professor and an active member of the religious community, Brode made efforts alongside Conklin to ensure people's perception of the relationship between science and religion was well informed. By being the president of the Science Club, Brode facilitated conversations about religion and science for interested students. Furthermore, although he did not discuss religion in most of his biology courses, he offered an academic space for seniors to

discuss the relationship between religion and science. Additionally, Brode monitored how evolution was represented in the press in order to ensure that the public was properly informed. As an educator, Brode focused on facilitating a conversation about evolution. As result, students and community members had a greater ability to make an informed decision about evolution and its implications.

At Whitman, Brode was the president of the Science Club from its beginning in 1904. According to the club's constitution, its purpose was the "furtherance of scientific knowledge and the study of current literature."<sup>37</sup> The bi-weekly meetings included lectures by professors and presentations of papers by students about subjects of original research or current magazine articles. Following presentation, the club would open up for discussion. As the president of the science club, Brode facilitated scientific discussion of a variety of topics that ranged from astronomy to geology. According to the club minutes for December 5, 1911, Brode spoke about "biology's place in immortality." Based on the club minutes that summarized his talk, Brode, when introducing the concept of death, explained, "it does not necessarily follow that when the brain has ceased to work that man's existence ceases, at least in the spiritual world." While he talked about the role of biology in death, Brode then acknowledged his faith in the existence of the spiritual world that science could not prove. Following his talk, discussion among club members resulted in a conclusion that behind "all scientific knowledge, there is... a power, a spirit that man cannot get away from." Through talking about biology and death, Brode opened up a conversation where students were able to relate their spiritual beliefs with the topic of biology.

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<sup>37</sup> Science Club Constitution, Box 1, Science Club Notebook, Science Club Records, WCA104, Whitman College and Northwest Archives.

Three years later, Brode gave a talk to the club members entitled “Religion and Morality from a Scientific Standpoint.”<sup>38</sup> By giving a lecture that related religion, morality and science, Brode again opened up the conversation with students about the relationship between these subjects. Although there is not any record that further details what Brode discussed during this club meeting, it is apparent that Brode was facilitating an open conversation about the relationship between religion and science. Through his leadership in the Science Club, Brode gave students and faculty the opportunity to learn and openly discuss the relationship between religion and science among many other scientific topics of discussion.

While Brode facilitated open conversation about religion and science outside of the classroom, the majority of his lecture and laboratory courses did not address this relationship. Based on the list of his lectures for his introductory biology course in 1927-1928, he entitled lectures about evolution as “Origin of Earth and Man” “Origin of Solar system” and “Man, Origin of Life.”<sup>39</sup> The titles of his lectures suggest that Brode taught the scientific theories of the development of life without addressing the religious implications. However, in class open to seniors entitled “Biology and Present Day Problems,” Brode did open up the discussion about the relationship between religion and biology as a part of the course content. In its course description for the third academic term in 1921-22, the college catalog explains, “This course will deal with the relation of biology to various problems in education, religion, eugenics, and social life in general.”<sup>40</sup> By opening the class up to all seniors, all Whitman students had the opportunity to engage in a more reflective course about the implications of biology. Through this reflective course, Brode enabled students to address the relationship between science and religion in a way that Brode did not make available in his other biology courses. In doing so,

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<sup>38</sup> “Religion and Morality from a Scientific Standpoint,” 18 March 1914, Box 1, Loose Science Club Papers, Science Club Records, WCA104, Whitman College and Northwest Archives.

<sup>39</sup> List of Lectures for Introductory Biology Course, 1927-1928, Box 6, Folder 6, WCMss121, Whitman College and Northwest Archives.

<sup>40</sup> “Biology Courses Third Term 1921-1922,” Box 6, Folder 6, Howard Brode Papers, WCMss121, Whitman College and Northwest Archives.

Brode facilitated the development of well-informed perceptions about the relationship between science and religion.

Outside of his activities at Whitman College, Brode monitored the way that evolution was portrayed to the public by the press. Brode collected a large number of newspaper clippings about stories that portrayed science and religion to the public. In addition to collecting opinions of pastors who attacked evolution, there are records showing Brode wrote a criticism to the editor of an article entitled "Is Evolution Scientific."<sup>41</sup> Because this article in the daily newspaper refuted the scientific validity of evolution, Brode wrote a criticism to the editor for lack of sound judgment. In a letter to the Editor, Brode argued that the newspaper article misquoted and misrepresented the scientists' opinions about the theory of evolution. While the article author emphasized that scientists no longer believe in evolution, Brode argued that such argument is based off outdated quotes said in the early days following the appearance of the *Origin of Species*. Because the author did not address more current comments made by the scientists, Brode expressed his outrage that the author misrepresented the certainty of evolution to the public.

In the margins of the letter that Brode edited before sending to the newspaper, he makes a point that it is just as absurd to ask a physicist if he believes in gravity as it is to ask a biologist if he believes in evolution.<sup>42</sup> In Conklin's essay "Evolution and the Bible," he makes a statement about gravity that may help contextualize Brode's comment. Conklin reminds his readers that the theory of gravity was once understood as atheistic in the same way that some authorities now believe evolution is antireligious.<sup>43</sup> While gravity and evolution have at one time been

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<sup>41</sup> "Letter to the Editor," Box 8, W.J Bryan and Evolution Folder, Howard Brode Papers, WCMss121, The Whitman College and Northwest Archives.

<sup>42</sup> "Letter to the Editor."

<sup>43</sup> Edwin G. Conklin. "Evolution and the Bible." Chapter IV, *Popular Religion Leaflets*, September 1922. <http://lclane2.net/conklin.html>.

controversial, Conklin and Brode argue that evolution is just as much a reality as gravity is. It is likely that Brode writes this letter to the Editor because he is upset because the article misrepresented scientific confidence about evolution to the Walla Walla public. The letter to the Union Bulletin shows Brode's commitment to ensuring that the public is provided accurate information to influence about evolution.

By facilitating conversation about the perceptions of religion and science in and outside of the classroom and monitoring the portrayal of evolution in the press, Brode refuted misconceptions about evolution and enabled people to informatively think about the relationship between religion and science.

#### **V. Brode's Role in Shaping Student Character**

Although Brode pushed the discussion of religion outside of his biology curriculum, Brode continued to model moral values as he taught his students the principles of biology and actively served the community. While he did not directly preach the principles of Christianity within his classroom, the content of his courses and Brode's overall character were morally edifying. Although it is not appropriate to use Brode's writings as evidence to propose that Brode intentionally sought to instill morals in his students, evidence does show Brode's instruction and community involvement had potential to improve thoughts and actions of students.

As religion was pushed out of the classroom, many educators in the late 19<sup>th</sup> and early 20<sup>th</sup> century believed that general science education had great potential to indirectly promote morals. Rueben expressed the common belief of the time by explaining, "Subjected to powerful but indirect moral discipline of scientific training, students were expected to mature into strong, honest, useful men."<sup>44</sup> While the aversion to religious dogma and promotion of scientific inquiry caused intellectuals to push religion out of the science classrooms, the establishment scientific

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<sup>44</sup> Rueben, "Scientific Substitutes for Religion." 136.



methods in the science department led to the morals that religion had instilled to remain in the classroom. Christian values of honesty, diligence, and purposefulness continued to be emphasized through scientific instruction.

Like the other educators of his time, Brode explained that the primary purpose of teaching biology was not to simply teach biological principles. He wrote in a letter to President Penrose that biological instruction “give[s] a general view of living things in all their relationships so that students shall come to think and act better because they have discovered something fundamental.”<sup>45</sup> According to Brode, knowledge in biology had the dynamic ability to influence student’s perceptions about themselves and the world. In an article that summarized the content taught in the biology department, the 1910 Whitman College Yearbook explained that the courses in biology deeply focused on exploring the mechanism of life and man’s place in the universe.<sup>46</sup> By teaching a curriculum whose content emphasized the relationship between man and all other living and non-living things, Brode instilled knowledge that had the potential to cause students to acquire a new perception about their place and purpose in the world that was probably quite humbling.

While intellectuals acknowledged the moral potential of the subject of science, many also understood that biology had another more specific moral value. According to Rueben, educators believed that because biology encouraged clean living and good habits, it was an appropriate form of moral training. They pointed out that biologists could now address many moral dilemmas traditionally addressed by religion, such as sexual relations.<sup>47</sup> By teaching courses like hygiene, students could learn to apply biological principles to determine appropriate action. Brode was among a larger group of intellectuals to claim that instruction in hygiene allowed

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<sup>45</sup> Needs of Biology Department 1913-1914, Box 6, Folder 6, Howard Brode Papers, Whitman College and Northwest Archives.

<sup>46</sup> “Biology,” *Wailatpu*, Volume IV. Whitman College and Northwest Archives. 24.

<sup>47</sup> *Ibid.*, 141.

students to approach general problems that they faced in college using the biological knowledge and the scientific method. In his essay entitled “College Hygiene,” Brode defended the importance of teaching hygiene in the biology department by explaining that “applying the knowledge gained through biological study in the broadest meaning” could solve the most important problems.<sup>48</sup> For Brode and other educators, instruction of biology enabled students to tackle a wide range of problems that they faced, including moral issues. Although religion was no longer a focus in scientific instruction, teaching hygiene to students could continue to students to answer ethical questions.

Brode was also a part of a larger trend in colleges around the United States to bring eugenics into the biology course curriculum. While there is not record of Brode explaining that the content of the eugenics courses was meant to instill morals into the students, other intellectuals of his time praised eugenics as a topic of high moral value. According to Reuben, these scientists reasoned that since knowledge about heredity would lead to the improvement of the human race, heredity had the potential to promote moral improvement of all people over time.<sup>49</sup> Because eugenics explained how to improve the human race through knowledge about heredity, scientists believed that its ability to contribute to the progress of civilization qualified its high moral value.<sup>50</sup> Because Brode taught courses about eugenics, he instilled ideas that promoted of progress. Because the course work promoted progress, other academics would have recognized his course in eugenics as morally edifying.

In addition to instilling morals through the content of his courses, Brode’s own moral character may have promoted good Christian morals to students. In speaking at his parents’ 50<sup>th</sup> wedding anniversary, Malcolm explained, “In his [Dr. Brode’s] teaching of biology and in

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<sup>48</sup> “College Hygiene”, Box 6, Folder 6, Howard Brode Papers, Whitman College Archives, Penrose Library.

<sup>49</sup> Reuben, “Scientific Substitutes for Religion.” 143.

<sup>50</sup> Ibid.,137.

friendly consultations, he was instrumental in happily leading young minds beyond the pitfalls of a hard-boiled<sup>51</sup> period of the American scene.”<sup>52</sup> In a period of time when people thought that everyone acted in their own self-interest, H.S. Brode pushed students past their cynical tendencies. Because H.S. Brode was teaching natural selection that outlined principles of the survival of the fittest, and it would be reasonable to believe that such instruction would have caused students to become more cynical. It is possible that H.S. Brode’s involvement in the community served as a model that disproved cynicism.

Brode’s service to the community was exceptional. He volunteered at the Walla Walla Public Library, he was a naturalist for the local YMCA and the Boy Scouts, and was an officer of the County and State of Washington Tuberculosis Society. Additionally, Brode was among a group of Whitman faculty members who volunteered with Red Cross during WWI. According to Thomas Edwards, Brode nearly spent all of his weekends away from campus on behalf of the Red Cross. Through their service, Brode and his colleagues were an moral examples to the students. In reaction, Pioneer newspaper wrote these teachers “offer the students...a splendid example of those who, in spite of the burdens of the daily routine, are willing to assume more responsibility in order to help the country in its need.”<sup>53</sup> Brode’s service to his community was an example that showed that people do not necessarily act out of their own interests.

Furthermore, after teaching and serving the Walla Walla community for 25 years, alumni and the president acknowledged Brode’s exceptional character. A former student wrote, “rarely does one meet one who is so thoroughly informed and yet has such a modest spirit.”<sup>54</sup> Similarly,

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<sup>51</sup> According to the Oxford English Dictionary, example of hard-boiled in a sentence: “It certainly is difficult to remain a stoic or a cynic, to be ‘hard-boiled’, for a long time.” <http://www.oed.com.ezproxy.whitman.edu:2048/view/Entry/84135?redirectedFrom=hard-boiled#eid>.

<sup>52</sup> “Golden Wedding Anniversary.”

<sup>53</sup> Thomas Edwards. 405.

<sup>54</sup> “Alumni Pay Honor to Doctor Brode.” *Whitman Alumnus*. 1924-25. 8-10. pg. 6.

President Penrose, stated “It is a pleasure to pay tribute to his high character.”<sup>55</sup> Through Brode’s actions of service to Whitman College and to the community, people acknowledged Brode’s high moral character.

During the time that Brode was teaching, educators around the country began to note the potential for professors to influence the moral character of students simply through their actions. When addressing the need for universities to continue to shape the character of students, intellectuals like Charles Fordyce and Otis Randall agreed that “an instructor’s personal influence was more important to the moral development of students than the subject he taught.”<sup>56</sup> According to Randall and Fordyce, professors with a high moral character had a distinct ability to positively shape the characters of students. Because Brode was known for his high character, Fordyce and Randall would have acknowledged that Brode was had the ability to shape the moral character of his students. Although Brode was not preaching Christian principles in front of the classroom, Brode’s high character was arguably a more effective model that had a greater potential to shape the characters of his students.

Although Brode mostly displaced religious teaching from the classroom, Brode continued to model and instill Christian character into his students by instructing them in biology and modeling high character.

## **VI. Brode’s Influence at Whitman College**

In a time of much debate about the validity and implications about evolution, Brode firmly established the biology department at the religiously-affiliated Whitman College on the basis of his strong belief in the validity open inquiry and the weakness dogmatic medieval method. In developing the biology department, Broding followed a trend of secularization with

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<sup>55</sup> Ibid.

<sup>56</sup> Rueben. 245.

many other educators that began to push religion out of the scientific classroom. As Brode was among a larger body of intellectuals who believed that religion and science could coexist harmoniously, Brode facilitated conversations about their relationship in and out of the classroom. Although class curriculum primarily focused on the study of biological findings that neutrally related to religion, Brode was among a body of educators who instilled christian morals through his instruction and his own moral character. While Brode pushed religion out with its dogmatic tendencies as he developed a biology department based on open inquiry, he continued to hold that religion and science were ultimately compatible.