

Paper Title: Interpretation and the Biblical Tradition in the *Religio-Scientifica* Dialogue: A Redefinition

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Abstract:

The Biblical tradition as it informs and shapes the discussion of issues in science and religion manifests itself most frequently from the interpretive perspective of Biblical literalism. Whether it is the cries of the creationist or the scientific positivist, the loudest but not always clearest voices from the Biblical tradition require a literalist approach for understanding the text, or none at all. However, the scriptures of the Judeo-Christian tradition and their interpretation run as deep and varied as the cosmos itself. Once the shadow of Biblical literalism is set aside, a new set of questions regarding the text emerges, some of which strike at the fundamental issues of the science and religion dialogue. These are questions like the following: How is the Biblical text to be understood? Can the Biblical text be brought to bear on issues in science and religion? Is there a place for these authoritative writings, steeped in their ancient historical contexts, in the formal construction and engagement of issues in science and religion? This paper strives to establish and re-define the role of the Biblical tradition in the *religio-scientifica* dialogue. By examining the topics of cosmology and stem cell research, I construct and analyze the existing relationships between the Bible, its interpretation and these current issues in science and religion. Then, once the limits of the existing hermeneutic are identified, I argue for an alternative reading of the Biblical text, mainly one from a historical-critical perspective, one which liberates the Biblical text and allows it to function in its social, historical and cultural contexts. It is only then that the Biblical text can elucidate questions in science and religion. Having made a case for a necessary hermeneutical shift in understanding the Biblical tradition, I then offer a new rendering of Biblical texts as they apply to cosmology and embryonic stem cell research as an example of how these authoritative writings can inform, shape and offer fresh insight to questions of science and religion.

Biography: Dr. Sara Fletcher Harding is Associate Professor of Religion at Florida Southern College (Lakeland, FL) where she has taught since 1997. Dr. Harding received her B.A. from Nebraska Wesleyan University and pursued graduate studies at Iliff School of Theology, where she received her M.A.R. with distinction. She earned her Ph.D. in Religious Studies from Marquette University in 1999 with concentration in New Testament. In addition to survey Bible courses, Dr. Harding teaches upper-level courses in New Testament, Hellenistic Greek and a course in Science and Religion. In 2001, Harding received a Course Award from the Center for Theology and the Natural Sciences and formally initiated her interest and interdisciplinary research in questions of religion and science. Harding also serves as the co-director of the Florida Center for Science and

Religion at Florida Southern College, which is a 2004 Metanexus Local Societies Initiative recipient. Dr. Harding's most recent paper (Lakeland, FL, 2004) was entitled "Theological and Biblical Responses to Stem Cell Research: Providing a Context for Dialogue in the Jewish and Christian Biblical Traditions."

#### Paper Text:

For the Judeo-Christian tradition, the Biblical text functions as an authoritative and necessary source for understanding the action of God, the relationship between God and humanity and the ontological and teleological questions of human existence. Questions concerning these topics naturally arise when the Biblical text is applied to issues in science and religion. In this paper, I will discuss biblical hermeneutics and how they engage issues in science and religion. After introducing the historical-critical method of Biblical interpretation and rendering the text silent on modern scientific issues and methodologies, I will propose a new hermeneutic for understanding the Biblical tradition as it is related to questions in science and religion by way of analogy to Carolyn Osiek's work in feminist hermeneutics. Once defined, I will then apply this newly defined hermeneutical position on science to the Biblical text as I examine two contemporary issues in science and religion, the origins of life and embryonic stem cell research.

The Biblical text is read by a variety of individuals with a variety of hermeneutical perspectives. Hermeneutics are the presuppositions that one brings to the text as one sets about the task of interpretation. Biblical hermeneutics can amount to Biblical literalism, inerrancy, and methods of reader response, just to name a few. In academia, however, most current biblical scholarship utilizes the hermeneutics of the historical critical method where the aims of the interpreter are to read the text out of its historical and literary contexts while attempting to reconstruct the intentionality of its author and the receptivity of its intended audience (exegesis). In many ways, this amounts to historical reconstruction, the deconstruction of the text and the recovery of ancient cultures and religious practices as a way to further explicate the Biblical text.

Given the antiquity of the ancient Biblical text in the Judeo and Christian traditions, the historical contexts for reading these authoritative writings are that of the Ancient Near East (10<sup>th</sup>-2<sup>nd</sup> centuries BCE), and Ancient Palestine and Asia Minor in the 1-2d centuries CE respectively. Of course, both of these time periods and geographical parameters predate modern empiricism and the scientific method by centuries. Therefore, with little examination, one can conclude that to expect, decipher or even anticipate that these writings could contain scientific explanations, or share our modern conceptions of science is anachronistic. The text is remarkably unscientific, given the historical context out of which it emerged. The text and its traditions come to us across time and space, via translation and cultural shifts. There are the few instances where there appears to be some "scientific" renderings in the text. For example, consider Jacob's hybrid sheep (Genesis 30:25-43), Paul pondering the range of light given off by differing celestial bodies (1 Co 15:4-41), and the attentiveness to menstruation cycles and the correlation between fertility and the number of days of impurity in Lev 15:19-31; 18:19; 20:18. Although these may look like scientific considerations by ancient writers, they are not conclusions that employ the methodology of empirical science, even though

they may appear so given the twenty-first century reader's own western, scientific context. The authors and the intended audiences of these texts did not know about recessive genes, the speed of light, or ovulation as we do. So, what is one to conclude? If the Biblical text was generated by a non-scientific age, is it fair to ask scientific questions of it? Can it speak of things of which it knows not?

A helpful hermeneutical analogy is that formulated in a groundbreaking article by Carolyn Osiek from 1985. Given the patriarchal historical context out of which the Biblical tradition emerged, many Biblical scholars were asking if, at all, the Bible had preserved the experience and role of women in the tradition. To this end, Osiek proposed "five alternative responses to the question of feminist biblical hermeneutics" that "arise from five different sets of women's experiences and assumptions about the Bible."<sup>1</sup> Osiek labels these responses as rejectionist, loyalist, revisionist, sublimationist and liberationist positions. Three of these responses in particular are relevant to the topic at hand that is the role of the Biblical tradition with regard to questions of religion and science. Of Osiek's five hermeneutical positions, I would like us to consider the rejectionist, loyalist and revisionist responses in more detail. For Osiek, who was offering a feminist critique of the Biblical text, the rejectionist response, obviously, rejects the Biblical tradition in its entirety since it is a product of a patriarchal culture and therefore concludes that since the Bible has preserved a depiction of women and gender that is under suspicion it is to be rejected as a source for understanding the role of women in antiquity. On the other hand, the loyalist perspective contends that the Biblical text is the Word of God that cannot be, and is not, oppressive. If it appears to be, it is the interpreter who is at fault, not the text. Therefore, with regard to the loyalist hermeneutical position, the authority of the text is paramount and upheld even at the expense of human reason. The revisionist response acknowledges the influence of the patriarchal context on the formation of the Biblical tradition and then separates out these influences, thereby leaving the repudiated word of God, revised from its historical context.

To ensure an understanding of the application of Osiek's hermeneutical responses, let us consider the following example from 1 Timothy 2:11-15 (RSV):

Let a woman learn in silence with full submission. I permit no woman to teach or to have authority over a man; she is to keep silent. For Adam was formed first, then Eve; and Adam was not deceived, but the woman was deceived and became a transgressor. Yet she will be saved through childbearing, provided [she] continue in faith and love and holiness, with modesty.

Using three of Osiek's hermeneutical responses, this text can be interpreted in the following ways:

Rejectionist: The text is not authoritative or informative for understanding the role of women in Christianity because it developed out of a patriarchal context and was largely shaped by that context's patriarchal attitudes toward women and gender roles that have been preserved in the text.

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<sup>1</sup> Carolyn Osiek, "The Feminist and the Bible: Hermeneutical Alternatives," in Adela Yarbro Collins, ed., Feminist Perspectives on Biblical Scholarship (Scholars Press: Chico, CA, 1985) 93-105.

1 Timothy 2:11-15 is an example of this patriarchal and historical phenomenon.

**Loyalist:** The text is authoritative for understanding the role of women in Christianity because it is in the collective authoritative writings known as the New Testament. Even though the text appears to be oppressive toward women, the Word of God cannot be so, and the meaning of the text is beyond our present understanding.

**Revisionist:** The text is best understood in the historical context of 2d century Christian asceticism in which gender stratification was perceived as a threat to the early church. Although, clearly patriarchal, 1 Timothy 2:11-15 addresses that historical situation and should not be understood as a universal statement about women and their role in Christianity.

Of course, Osiek's feminist hermeneutical positions only apply to Biblical texts that present some reference to women or the feminine. However, I think that Osiek's model of hermeneutical responses for Biblical texts can be quite helpful in understanding the role of the Biblical tradition in the present dialogue about issues in science and religion. Here, the greatest contrast between Osiek's proposal and my own is that Osiek applied her models to ancient texts that actually dealt with the topic at hand (women in antiquity) and I will apply analogous hermeneutical models to the interpretive assumptions and experiences of the Bible with regard to modern scientific inquiry, something to which the texts themselves are anachronistic. In spite of this anachronism, there is justification for this avenue of inquiry given that the Bible is often called upon as the authoritative voice for addressing the moral, ethical and theological questions brought to bear on the text by science. A hermeneutical understanding of the ways in which the Bible is interpreted in light of modern scientific questions is necessary. And, it is only thru an understanding of the basic hermeneutical assumptions about the Biblical tradition's scientific content that the discussion of faith and its relationship to science can continue in a constructive and engaging manner. Therefore, based on Osiek's models of rejectionist, loyalist and revisionist responses, I would like to propose the following triad of Biblical hermeneutical responses to science:

**Scientific Biblical Rejectionist Response:** The Bible, being the product of an ancient culture, anachronistic to modern empiricism and scientific method, is therefore to be rejected as a source of reflection and information on matters in science and religion.

**Scientific Biblical Loyalist Response:** The Bible, being the Word of God, either a) contains scientific information that is useful across time and culture for understanding matters on science and religion; or b) is beyond human understanding that is limited by current biblical interpretation.

**Scientific Biblical Revisionist Response:** The Bible, although a product of ancient cultures that are anachronistic to modern empiricism and scientific

method, may contain insights that, once the text is understood in its historical context, are constructive for the engagement of topics in science and religion.

To further demonstrate the use of these hermeneutical responses, we must apply the above presuppositions about science and the Biblical tradition to examples from contemporary issues in science and religion. The first example to which I'd like to apply these hermeneutical views is to that of the origins of the earth and the origins of life. This example is necessary since it is one that, in recent history, has been over burdened by Biblical literalism. The text at hand is the Priestly creation account found in Genesis 1 and dated around the 6<sup>th</sup> century, BCE.

Unequivocally, the text is not a scientific explanation of the origins of earth and life. The following quote by Jewish Hebrew Bible scholar Nahum Sarna in 1966 is given in direct contrast to the work of creationist and physicist Henry Morris that was published in such Biblical journals like *Bibliotheca Sacra* also in the mid-1960's. While Morris, the scientist, argued that the Genesis 1 creation narrative was indeed scientific and offered an explanation of how it was scientific, Sarna, the Biblical scholar, argued from a historical-critical view that the text and the ancient culture that generated it, was not. Sarna writes

Biblical man, despite his undoubted intellectual and spiritual endowments, did not base his views of the universe and its laws on the critical use of empirical data. He had not, as yet, discovered the principles and methods of disciplined inquiry, critical observation or analytical experimentation. Rather, his thinking was imaginative, and his expressions of thought were concrete, pictorial, emotional, and poetic.<sup>2</sup>

The Ancient Near Eastern cultural context out of which Genesis 1 emerged had a limited understanding of the world, that of a three-tiered universe. The text conveys this as well. There is the earth, the area under the earth and the area above the earth. The text is not a scientific rendering of the cosmos in any modern sense. Instead, the tradition in Genesis 1 functions primarily as myth. As myth, it conveys the social and religious understandings of the people of Israel in their world and in relationship to God. It functions with a purpose similar to but extremely different in terms of actual content from another 6<sup>th</sup> century creation myth from the Ancient Near East, that of the famed Babylonian creation myth, *Enuma Elish*. The contrast between these two myths is striking. Over against *Enuma Elish*, creation in Genesis 1 is good. Life is affirmed as well as humanity. Humans are created in the image of the divine, rather than as the slaves of the gods (Lullu in *Enuma Elish*). God is a God of order and dignity, one who creates by calling things into existence rather than bringing all things forth from the corpse of a murdered deity. Genesis, with its lovely heptad, the seven-fold structure of creation, affirms a well-ordered creation and culminates in the validation of Sabbath observance, which was so important in the lives of the people of Israel.

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<sup>2</sup> Nahum M. Sarna, *Understanding Genesis: The Heritage of Biblical Israel* (New York: Schocken, 1966) 2-3.

Now, from a hermeneutical position of science, how are we to understand this text? The contemporary reader approaches the text with questions of modern cosmology in mind. Where are the references to Big Bang and evolution? If this text contradicts with the best of modern science, is the text wrong? Useless? Let us apply the Biblical hermeneutical responses to science discussed above in an attempt to answer these questions.

The scientific Biblical rejectionist response would conclude, given the historical context of the tradition, that the text is un-scientific and therefore has nothing to say when it comes to a discussion of cosmology and evolution. This response may appeal to a variety of persons regardless of faith positions including that of a scientific positivist, a Biblical scholar interpreting the text in its historical context, or a believing scientist who views the text as functioning apart from scientific explanations. The response of the scientific Biblical loyalist position would argue along the lines of the creationist. The Word of God must speak to the way in which creation came into existence since it conveys all truths, and any dissonance between the text and the scientific explanation of origins is to be understood as a fallacy of science or a lack of understanding on behalf of the Biblical interpreter. The scientific Biblical revisionist response would concede with the rejectionist that the tradition in Genesis 1 has nothing to do with science but maintain that the overall theological conclusion of the text, *that God ordered creation for a willed purpose*, would be integrated with any scientific explanation, such as those among the positions of theistic evolution.

The second example to which I'd like to apply these Biblical hermeneutical responses to science consists of those texts that have become entangled in the ongoing and heated discussion regarding embryonic stem cell research. Using the newly defined categories of response, can one determine the role of the Biblical tradition in this case?

First, the ancient context of sickness for the authors and intended audiences must be considered. In antiquity, the understanding of illness differed greatly from our modern understanding of bacteria, virus and disease. Illness in antiquity was perceived in terms of economy, meaning that there was understood to be a quantifiable amount of illness (supply). Therefore, when one person was sick, this was a benefit to others who were well since there would be less illness to spread. If one person were sick, it would decrease the odds of their friends or family members becoming sick. Also, it was understood that those who were unfortunate enough to be sick deserved it because of something the individual did, or perhaps that their parents did, if he/she had been sick since birth. There was the understanding that there is a direct relationship between one's actions and illness. Now, clearly this is an unscientific understanding of illness based on social mores rather than any type of physiology or molecular biology. The Biblical text across the board is unscientific in this respect. To even suggest that the writers and audiences of these traditions were aware of molecular structures is ridiculous, which leads to the point at hand. The Biblical text possesses no understanding of any type of cell, let alone stem cells. Has scholarship then reached an impasse? Does the Biblical text have nothing to say regarding the present questions regarding embryonic stem cells and stem cell research? Believers turn to their sacred writings and their interpreters for guidance.

However, this particular issue in science and religion requires more analysis. The embryonic stem cell debate is about more than scientific explanations of stem cells. This

issue is about suffering and human life. It is also about frozen embryos. The Biblical tradition is definitive in its attitude toward humanity and the status that it has. Biblical texts and traditions are in agreement that humanity is created in the image of God (Gen 1:27, “So God created humankind in his image, in the image of God he created them; male and female he created them”) and therefore has a special place in creation. The Biblical text also affirms the sanctity of human life over and over again as demonstrated by the injunctions against murder found within the ethical code in Torah (c.f., “Whoever sheds the blood of a human by a human shall that person’s blood be shed; for in his own image God made humankind”—Gen 9:6). However, there is much disagreement as to whether or not the Bible includes the embryo in the affirmations above.

In the Greek historical context, Aristotle makes the interesting distinction between the formed and unformed fetus—40 days for males and 90 days for females. However, for the ancients there was no understanding of reproduction as that of “conception” defined as the union of ova and sperm, viewed in 1827 under a microscope. None-the-less, the embryonic stem cell debate is loaded with Biblical proof texts that seemingly support the status of the embryo as that of a human being. Consider the following texts that are often quoted as authoritative in religious positions against embryonic stem cell research:

Psalm 22:10    You drew me from my mother’s womb,  
                            Made me secure at my mother’s breast.

Psalm 71:6    While yet unborn, I depended on You;  
                            in the womb of my mother, You were my support.

Ps 139:13     It was You who created my conscience;  
                            You fashioned me in my mother’s womb.

Jeremiah 1:5   Before I created you in the womb, I selected you;  
                            Before you were born, I consecrated you;  
                            I appointed you a prophet concerning the nations.

Isaiah 49:1    Listen, O coastlands, to me;  
                            And heed, O nations afar;  
                            The Lord appointed me before I was born,  
                            He named me while I was in my mother’s womb.

The above texts use the Hebrew word *baten* for “womb.” The word has a range of meaning, none of which is a technical word for uterus. The word simply means belly or lower thoracic cavity. The LXX uses the Greek words *koilia* or *gastēr* both of which are equally ambiguous in their designations. Given this semantic range, there is nothing definitive in a historical-critical reading of the Biblical text that demonstrates the sanctity of human life at the moment of conception. Furthermore, the texts from Jeremiah and Isaiah are both prophetic calls that use hyperbole to establish the role of the prophet, set

apart from the time before each was born. Given this information, how is the interpreter to respond to the Biblical text?

The triad of Biblical hermeneutical responses to science gives some help in this matter. The scientific Biblical rejectionist response would reject any of these texts on the grounds that stem cells are the result of late twentieth century scientific research and the Biblical tradition had no awareness of the intricacies of stem cells or the stem cell debate. Therefore, this position would conclude that the Biblical tradition does not inform, shape or validate any aspect of the stem cell issue. The rejectionist response silences the text in this way. In the scientific Biblical loyalist response the text would be held up for its content and deemed fully appropriate in application to stem cells making leaps, perhaps some too hastily, within the text to advocate any given position. Particularly, this is evident in the English interpretations of the texts cited above. The scientific Biblical revisionist response would recognize that the Bible does not address the stem cell issue *per se*, but would validate that one can still look to the Biblical text to inform and guide the ethical and moral questions about human life. Therefore the sanctity of human life is a given, while the status of the embryo must at the very least be reconsidered in light of the lack of definitive textual evidence to support such a position. However, the range of the applicable Biblical field must be expanded to include a discussion of not only the sanctity of the human embryo, but also those discussions of all human life in light of pain and suffering, and the moral obligation to cure and treat diseases. Herein there is also a necessity on behalf of the Christian tradition to revisit the implicit model for Christian life exemplified by Jesus the healer. It is through this type of Biblical analysis that the stem cell debate will come out of the realm of politically charged rhetoric to a careful and examined inquiry into how, at least for the Judeo-Christian traditions, the Biblical text informs these larger theological questions in relationship to science.

In conclusion, let me frame the all of the above remarks in a plea for serious, rigorous Biblical scholarship as it applies to questions in science and religion. Yes, the text is ancient and the questions are modern, however, the Biblical tradition can have a role in the dialogue if it is examined and discussed in the above ways. May the adaptation of Osiek's models of hermeneutical responses bring interdisciplinary scholarship to a level of engagement that at this moment appears to be lacking in addressing questions of science and religion through a Biblical lens.