Contributions to the Love-and-Science Symbiosis [1]

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I. Process Thought, Science and Religion, and the Love-and-Science Symbiosis

Many in the process theological and philosophical tradition have contributed in important ways to what is commonly called the science-and-religion dialogue. Alfred North Whitehead was motivated to contribute in part because he believed that the course of history depends upon our decision as to the relations between science and religion.[2] Along with Whitehead and Charles Hartshorne -- two who are perhaps most often identified as significant process philosophers -- we should include among process figures who contributed to the dialogue people such as Samuel Alexander, Nicolai Berdyaev, Henri Bergson, Pierre Teilhard De Chardin, William James, and a number of other individuals might also be included.

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1 This essay was written for public presentation at the Center for Process Studies, October 2, 2003. The reader will notice that I have done little to document sources, quotes, and references mentioned herein. And what little documentation one finds differs in form. This style reflects the purpose of the essay, which was that it be presented in a public forum.

2Alfred North Whitehead, *Science and the Modern World* (New York: Free Press, 1967 [1925]), 181.

The contemporary era of science-and-religion scholarship, however, might be dated to 1966. Ian Barbour released a landmark book that year titled, *Issues in Science and Religion*. In that work, in other pieces he had written previously, and in various books and articles he has written since, Barbour notes the promise of process thought as a way to make headway in the science-and-religion dialogue. Because of his influence from the 1960s through today, many consider Barbour the godfather of the contemporary science-and-religion dialogue. (By the way, I encourage you all to read one of Ian's latest books, *Nature, Human Nature, and God*, because I think it best identifies the influence that process thought has had upon his personal reflections.)

Today, the process vision influences many of the most important figures in the science-and-religion field. The Center for Process Studies has played an important part in influencing the field, not least through the writings of David Griffin, John Cobb, Marjorie Suchocki, and others. The recent addition to the Center of Philip Clayton, who is undoubtedly among the top handful of most important figures in the field and perhaps *the* most important figure overall, is a boon to Claremont Graduate University, Claremont School of Theology, and the Center for Process Studies. Philip's initial work to establish the Center's "Dialogues Concerning Science and Natural Religion" is likely to produce groundbreaking work as more people become aware of how process thought can be a compelling bridge between science and religion.

In the past five years, a slightly different set of science-and-religion issues – although with obvious and often deliberate links to previous issues – has begun to be explored. Instead of asking about the relationship between science and religion – including religion's varieties, doctrines, traditions, etc. -- some are beginning to explore the relationships between *love* and science. Of course, the interest in the relationship between love and science and how the two might be mutually beneficial is not without precedent. But the conscious and organized efforts of the past five years represent a new focus with new participants engaging the work.

This slightly different approach to issues in science and religion – the approach I have come to call "the love-and-science symbiosis" – offers a variety of advantages over the typical science-and-religion dialogue. For instance, sometimes the typical dialogue becomes mired in quibbles over doctrinal minutia inherited from "the faith of the fathers." The love-

and-science symbiosis bypasses many of these quibbles, while at the same time drawing from religious beliefs and practices that promote love. The unstated assumption by most interested in this new work seems to be that the most relevant aspects of the religious life are those that pertain to issues of love.

At the fore of the love-and-science symbiosis is the Institute for Research on Unlimited Love, directed by Stephen Post, professor of medicine and ethics at Case-Western Reserve University. Post lists among the institute's chief goals 1) to fund high-level scientific research on altruistic and unlimited love and 2) to develop a sustained dialogue between religion and science on the meaning and significance of unlimited love through publications, conferences, and seminars.

In the past couple years, the Institute has funded more than 20 scientific research projects with close to 2 million dollars in monies. Grants have been given for research in fields such as psychology, evolutionary biology, medicine, sociology, and neurobiology. Smaller grants have been provided for non-scientific research projects related to religion and philosophy.

To date, the primary financial and advertising support for the Institute for Research on Unlimited Love comes from the John Templeton Foundation. The Foundation has pledged many millions of dollars to fund the Institute's future projects as well. It will perhaps come as little surprise to those who have been attuned to the science-and-religion dialogue for the past decade to hear that the Templeton Foundation is supporting the Institute. The Templeton Foundation not only provides tens of millions of dollars to various science-and-religion enterprises each year, but Sir John Templeton himself has authored several small books on the importance and power of love.

II. Process Contributions to the Love-and-Science Symbiosis

Having provided a thumbnail sketch of the emerging field of inquiry I've called the love-and-science symbiosis, I intend to spend the remainder of the afternoon discussing substantive issues related to this field. Significant questions in science, philosophy, religion, and ethics have already emerged in the love-and-science symbiosis. Many of these

questions pertain to the meaning and nature of love itself. Many reflect longstanding intellectual quandaries concerning the scope and role of science. Many echo questions that arise in the fields of bioethics, religious ethics, and social ethics.

I believe that process thought offers adequate and appealing answers to many of the questions being asked by those interested in the love-and-science symbiosis. In fact, I believe that process theological and philosophical thought provides the best overall vision for work in this field. I am often reminded of Charles Hartshorne's words, found at the conclusion of the Library of Living Philosophers volume devoted to his thought. "My ultimate intuitive clue in philosophy is that `God is love'," Hartshorne writes, "and that the idea of God is definable as that of the being worthy to be loved with all one's heart, mind, soul, and entire being."3 It was Hartshorne who earlier in his life said of Whitehead's thought that "never before . . . has a really first-rate philosophical system so completely and directly . . . supported the idea that there is a supreme love which is also the Supreme Being."4

In the spirit of my belief that process thought can make important contributions to the love-and-science symbiosis, I offer ten such questions pertinent to this emerging field of interest. Following each question, I suggest an answer that I believe flows from process views related to theology, philosophy, science, and ethics. Unlike David Letterman's top ten, however, my ten questions are offered in no particular order.

1. Can humans ever *truly* love?

In the mid-1960s, the Institute for Philosophical Research, under the direction of Mortimer Adler, engaged in an important project. Institute members decided to explore anew various subjects of continuing philosophical interest. Out of the work of this Institute, a rather obscure but erudite book emerged called, *The Idea of Love*, written by Robert Hazo.

3Charles Hartshorne in Lewis Edwin Hahn, ed. *The Philosophy of Charles Hartshorne* (La Salle, Ill: Open Court, 1991), 700.

4Charles Hartshorne, *Reality as Social Process* (Boston: Free, 1953), 197.

The first half of *The Idea of Love* deals with human and divine love, and it features analysis of the thought of Anders Nygren, Martin C. D'Arcy, C. S. Lewis, Soren Kierkegaard, Martin Luther, Fenelon, Bernard of Clairvaux, Thomas Aquinas, Reinhold Niebuhr, Paul Tillich, Augustine, and others. The main questions addressed in this analysis pertained to the relationship between natural human love and supernatural human love.

Those interested in the love-and-science symbiosis still consider these questions today. The two main questions are these: Can humans act lovingly on their own, without any inspiration from deity? And, is every act of human love actually an act of God with no human contribution? If one answers that humans can act lovingly without divine inspiration, one seems to put God on the metaphorical sidelines when major moral questions are at issue. But if one presupposes that creatures are utterly sinful and incapable of any good thereby requiring God to love through them (Martin Luther's idea of humans as a tube through which God drops love that flows through the individual to others), it would seem that any good that humans do comes solely from beyond them. Few if any of those interested in the love-and-science symbiosis are suggesting that humans never really love at all, which seems to be Reinhold Niebuhr's position on love, at least when Niebuhr talks about political power struggles and the inevitable irony of history.

I believe that process thought can contribute an adequate answer to these lines of questioning. Process thought contends that God acts prior to creaturely experiences. And in this act, God presents a proposition with a range of possibilities for action. These possibilities are graded in relevance to the moment at hand. Creatures love when responding to this proposition by instantiating the possibility that will increase overall well-being. This means that process thought contends that human love is natural, and yet human love requires divine persuasion. Humans really do act lovingly, but they cannot act without God's prevenient loving activity.

2. Is love sympathetic/affective/tendential or is it intentional/benevolent/ judgmental? To put the question more simply, is love a matter of the emotions or of the will?

Robert Hazo sets up an interesting dichotomy in the second half of his book, *The Idea of Love*. In one section, he reports on the thought of those who regard love to be primarily or solely a matter of emotions and affections. These individuals understand love to what Hazo calls "tendential." Listed in the group are Baruch Spinoza, William James, Soren Kierkegaard, Erich Fromm, Nicolai Hartmann, and others. (Parenthetically, some consider Charles Hartshorne to regard love primarily or solely in terms of this tendential aspect.) In a second section, Hazo reports on the thought of those who understand love primarily or solely in terms of will and judgments. Listed in this group are Rene Descartes, David Hume, John Locke, Blaise Pascal, and others. In the contemporary love-and-science symbiosis, this question of whether love is a matter of emotions or an act of the will remains. In my own writing, I have couched the debate in terms of sympathetic response vs. intentional action.

I believe that process thought contributes a helpful answer to this either/or dilemma. Whitehead argued that every moment of an individual's existence logically begins with a feeling – a prehension -- of what has come before. This is a sympathetic response to the data of the past that impinges its power upon the present. But each moment of existence logically concludes with a decision made by the individual about how to respond to the past. This is the self-determination of an intentional action. What this means for love is that process thinkers might understand love to involve both responsiveness and intentionality. With this both/and in mind, in fact, I have defined love as intentional action, done in sympathetic response, to attain overall well-being.

3. Is love essentially altruism?

Some evolutionary theorists have suggested that all organisms, including humans, must act egoistically if they are to survive, thrive, and be reproductively successful. Yet there are many examples of humans and nonhumans alike that have acted for the good of another and thereby made personal sacrifices. A number of theories have emerged to explain this altruism of personal sacrifice, including kin altruism theory (which says that we act altruistically toward kin because our kin share our genetic lineage and what we want most is for our genetic lineage to continue), tit-for-tat or reciprocal altruism (which says that we act

altruistically only because we expect to receive some benefit in return) and group-selection theory (which says that altruists gather into groups so that, as a group, they can survive and thrive in competition with groups consisting of egoists). While each of these theories provides at least partial explanations for altruism, each supposes that egoism continues to play an important role. None of the theories accounts for instances of altruism in which an altruist acts self-sacrificially despite receiving no personal gain. In terms of love, these theories fail to account for sacrificial love with the good of the stranger or enemy in mind.

The questions of altruism and egoism become especially tangled in evolutionary psychology. Many of the pertinent issues can be presented with an illustration: Suppose Tom decides to give his life to save a stranger from certain death. And suppose that this saving would be done so that no one, not even the one saved, were to know that Tom acted as savior. This altruistic act would not be to Tom's reproductive advantage, and let us suppose that Tom acts believing that this saving work will be noticed and remembered by no one. This scenario appears to be "Altruistic Love Exhibit A," because Tom seems not to gain anything in return for his actions. Not so fast, say skeptics. Tom may actually be acting egoistically as a savior, because he finds a deep sense of meaning and satisfaction in giving his life for others. In other words, an egoistic motive may trigger Tom's seemingly altruistic action. And what seemed to be pure altruism is actually egoism in disguise.

Process thought can help overcome many of the conundrums that arise in the altruist-egoist debate. It can do so in its hypothesis that all existing things are interrelated. In an interrelated universe, the line between egoism and altruism becomes blurred. What I do for others affects me, because others, including my future self, will respond to my actions. Of course, I may act believing that I will likely receive less benefit in return than the benefit I provide to others. But we need not think of such predominately altruistic actions as valuable only if they remain free of any egoistic intent or result.

Process thought also supports the notion that in a world of interrelated individuals, predominately egoistic actions may be vitally important for the increased good of the whole. In some circumstances, acting in ways that will predominately benefit oneself may be the most loving thing to do. This means that love, which involves promoting overall well-being, sometimes calls for predominately egoistic actions. This is something many feminist philosophers and theologians have been saying for some time.

4. Is the highest or best love *agape*, *eros*, or *philia*?

Since Anders Nygren's mid-nineteenth-century book *Agape and Eros*, the Greek words for love have become commonplace in the parlance of many religious Westerners. From Nygren's heyday through today, it seems that the majority of religious people who know about the Greek words for love regard *agape* love as superior to the other love-types. This majority includes scholars of religion, although it seems not to include many biblical scholars.

Various problems arise when we regard *agape* as superior to the other love types. One problem is that there seems no warrant for this high regard in either Greek philosophy or Christian scripture. Sometimes authors of the Christian New Testament, for instance, regard *agape* highly and sometimes they do not. Sometimes New Testament authors use *philia* to speak of the highest form of love.

Related problems emerge when regarding *agape* as more superior or higher than the other love-types. The fact is that ancient and contemporary texts offer many uses and definitions of *agape* and of the other love-types, and it is difficult to know exactly what an author means when using one love word, such as *agape*, or another. I appreciate and agree with Bob Adams who wrote recently, "'Agape' is a blank canvas on which one can paint whatever ideal of . . . love one favors."5

Within the last five years or so, the *Journal of Religious Ethics* devoted an entire issue to a discussion of the three love-types, *agape, eros, and philia*. Colin Grant defended a version of Nygren's thesis that *agape* is the highest love, Carter Heyward argued that feminists like herself believe that *eros* should displace *agape* in any hierarchy of loves, and Edward Collins Vacek suggested that *philia* deserves as much attention if not more than the other two if love is chiefly about affirming members of a community for the sake of communally shared life. What's a scholar working in the love-and-science symbiosis to think about ranking the three classic love-types?

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5 Robert Merrihew Adams, *Finite and Infinite Goods: A Framework for Ethics* (Oxford: Oxford University Press, 1999), 136.

I suggest that process thought can help us see that all three loves play an important part in the work to increase the common good. Inspired by the idea that all three loves are necessary and that particular circumstances determine which love should be expressed, I have suggested that those in the love-and-science symbiosis embrace what I call "full-orbed love." Such a love values the repaying of evil with good that is inherent in *agape*. Full-orbed love appreciates the value and beauty in others that is inherent in the *eros* love-type. And full-orbed love acknowledges the importance of ongoing relationships of friendship and mutual support.

5. How should we talk about the relations that love requires?

It is almost universally recognized, if only implicitly at times, that love requires relations. So too, the general principles of science and the practices of scientists presuppose that existing things relate to other existing things. From theories of relativity and interactions in the micro-world explored by physicists to social theories pertaining to global politics and economics proposed by social scientists, the often-unstated assumption is that cause and effect occurs because existing things relate one with another.

But what theory of relations best accounts for both the intuition that love requires relations and the presupposition of science that existing things relate? I suggest that Whitehead's theory of internal and external relations can be a powerful conceptual tool for understanding the relations inherent in love and science. The ultimacy of relations in Whitehead's metaphysical scheme leads many to consider him a "relational" philosopher, and the theology that has emerged from his influence has been referred to as a form of "relational theology."

Whitehead speculates that existence consists of the "essential relatedness of all things" (1968 [1933], pp. 227-28). The "things" that are related – which includes all existing entities -- are moments of experience or actual occasions. Existing individuals are internally related to what has come before, as they prehend prior experiences. This means, as Whitehead puts it, that "every actual entity is what it is and is with its definite status in the universe," because "its internal relations to other actual entities" shape it (ibid., p. 59). The organism enjoys a moment of what biologists call "autopoesis" as it forms itself in

response to past influences. (By the way, the phrase, "in sympathetic response," in my definition of love is meant to account for the internal relations of organisms.)

Whitehead's philosophy also speaks of "external relations." By this, he means that once an organism comes to be, it affects other organisms that will arise in the future. Whitehead likes to explain this influence upon future others by saying that "it belongs to the nature of a 'being' that it is a potential for every 'becoming'" (1978 [1929], p. 22). Just as each organism, through its internal relations, drew upon its relations with others as it came into existence, each organism subsequently becomes a datum for future organisms as they come into being. Future organisms cannot change what has happened in the past, and therefore past organisms are externally related to them. Charles Hartshorne refers to the cause-and-effect relationality of existence when he speaks of "the social nature of reality," in which "to be decided in part by others is essential to being as such" (1951, p. 527). I believe that those in the love-and-science symbiosis would do well to use the language of internal and external relations as they reflect on love and construct hypotheses for their scientific research.

6. Why difference does the phrase "God is love" make, if God is an ultimate mystery and altogether different from us?

In his just-released book, *Unlimited Love: Altruism, Compassion, and Service*, Stephen Post bucks a trend most apparent in various forms of apophatic theology. Post opposes what sometimes seems to be theology politically correct position, when he openly endorses natural theology. This endorsement is crucial if theology is to play a significant role in matters related to love and science.

Post argues that analogical language is vital to discourse about God and the world. We should "analogically attribute qualities of perfect parental heart to God," writes Post, "because parental love is the most intense and abiding form of love with which we are familiar" (109). He even states that "for those who accept the parental analogy between human beings and God, a process theism in which God suffers in *pathos* from the waywardness of all human beings seems inevitable" (111). Post extends the possibility of

analogy even further when he argues that "there is simply no other way to talk about divine love than by considering the highest forms of love that we know through nature" (117).

These quotes reveal that process thought has already influenced at least one important contributor to the love-and-science symbiosis. But I think process thought can be used to inspire even deeper insight into the similarities and differences between God and creatures. Charles Hartshorne's work is important in this regard, because he offered a vision of a relational and personal God. Hartshorne embodies Whitehead's charge that God "[should] not to be treated as an exception to all metaphysical principles, invoked to save their collapse. [Rather, God] is their chief exemplification."[6] I have argued process thought can lead those in the love-and-science symbiosis to affirm that divine love and creaturely love is of the same kind, although divine love differs in degree. They are of the same kind, because both are intentional actions done in sympathetic response to promote overall well-being. They are different in degree, for instance, because God's love promotes well-being to all, while our localized existence means that our love does not affect all. The love-and-science symbiosis needs the type of rigorous speculation that process thinkers are used to doing as they delineate the similarities and differences between divine and creaturely love.

7. How can we account for widespread genuine evil while also claiming that God exists and inspires love in creatures?

The occurrence of genuinely evil events is a problem for many theists in the love-and-science symbiosis. This problem appears as a major theme in a recent book of essays edited by John Polkinghorne titled, *The Work of Love: Creation as Kenosis*. And it is front and center in a recently published collection of essays edited by Willem Drees titled, *Is Nature Ever Evil? Religion, Science, and Value*.

Most theists who attempt to solve the problem end up suggesting some form of divine self-limitation at the creation of our universe, self-limitation on God's part in ongoing God-creature relationships, or both. This solution, of course, does not answer well the question why a self-limiting God would not become un-self-limited in the name of love and prevent

[6]Whitehead, *Process and Reality*, 343.

genuine evil from occurring. The self-limiting God remains culpable for failing to prevent genuine evil, and a culpable God is not a God who loves perfectly.

Process thought is slowly becoming better known for its solution to theoretical aspect of the problem of evil. Although a variety of process hypotheses can solve the problem, what each hypothesis shares in common is the claim that God cannot withdraw or override creaturely freedom. A God unable to veto creaturely freedom cannot be held culpable for failing to prevent the evil committed by free creatures. And, according to process thought, all creatures are free to some degree.

Unfortunately, many who are at least somewhat familiar with process thought and who also have interest in the love-and-science symbiosis wrongly believe that the God process theists envision constantly battles against creativity or some evil demi-God. John Polkinghorne endorses the flawed notion of divine self-limitation as an answer to theodicy in the aforementioned book *The Work of Love*. He writes that self-limitation of divine power "is quite different from Process Theology's conception of an external metaphysical constraint upon the power of deity." The *kenotic* vision of divine self-limitation, continues Polkinghorne, maintains "that nothing imposes conditions on God from the outside" (96). One way that process theists can contribute to the love-and-science symbiosis is to clarify that the God they envision is neither constrained by external metaphysical conditions nor wrestles against equally powerful nondivine forces. The God of process thought embodies the metaphysical principles. And this God should be regarded as the Almighty One, because the God envisioned by process theists is the mightiest individual and is the only being who exerts might upon all other individuals.

8. Is the capacity to love a natural emergent phenomenon?

In the broader science-and-religion dialogue, theories of emergence are gaining popularity. In fact, Philip Clayton, whom I mentioned earlier, is an important leader in the research and writing on emergence in nature. Although the questions of emergence have not yet arisen in the love-and-science symbiosis, I expect them to eventually. Can process thought contribute something important to the issues pertaining to emergence?

As far as I know, the actual word "emergence" is not found often in the literature of process philosophy and theology. The idea that something new can emerge when particular conditions apply, however, is a part of the process tradition. Whitehead suggested that although all actual entities have a mental pole, consciousness emerged from that which was not conscious. And the process endorsement of general evolutionary theory, including a necessary role for deity in evolution, provides a basis for affirming some forms of emergence theory. David Griffin discusses notions of emergence in his recent work, *Religion and Scientific Naturalism*, when he offers a process theory to account for punctuated equilibria and the lack of intermediary species in the fossil record.

But what might be said about the emergence of the capacity to love? And does process thought have something to say on this score? John Cobb tackled this question in a 1967 book titled, *The Structure of Christian Existence*, a book whose concluding chapters receive far less attention today than they should. In his chapter simply titled, "Love," Cobb notes that, in an extremely loose sense, it can be said that every entity that exists loves itself and other entities. But Cobb believes that it is better to reserve the term "love" for the activities of much more complex organisms – human and nonhuman animals in particular. He speaks of thresholds that are crossed, with the capacity for love emerging when an organism evolves the capacity to respond in ways that are not merely instinctual. The most complex creatures -- those who act out of developed consciousness – appear capable of the most complex forms of love. In the scenario that Cobb lays out, we see levels of emergence at play. Although Cobb is not providing a detailed scientific explanation for emergence, he offers the love-and-science symbiosis a proposal for how we might best regard the evolutionary emergence of the capacity to love.

9. Why regard love supremely if we have no reason to believe that some actions are any better than others?

Some forms of postmodern theory exerting influence today suggest that there exists no reason to believe that some actions are better than others. If we either do not have access to universal ethical norms or such norms do not exist, there seems no basis for moral judgments. This suggestion, what might be called extreme ethical relativism, undermines

the very nature of the love-and-science symbiosis. It undermines the idea that we should champion love as supremely desirable, and it undermines the idea that scientific research can help make the world a better place.

The process tradition can contribute to the love-and-science symbiosis by arguing with Whitehead that common sense must play a role in ethics, epistemology, and aesthetics. David Griffin defends this position in several of his works by arguing that we all affirm the hard-core commonsense notion that some things are better than others. All people show in their practice, even if they deny it verbally, their belief that there are better or worse courses of action. In *Unsnarling the World-Knot*, Griffin puts it this way, "we all presuppose in practice that some modes of behavior and intended outcomes are inherently better than others and that some states of affairs, whether internal or external, are more beautiful, pleasing, fitting, tasteful, or what have you, than others. We may differ in our judgments and even our criteria; but *that* a distinction between better and worse exists we all presuppose" (*U*, 40-41). I submit that those working in the love-and-science symbiosis can use hard-core commonsense notions to answer those who suggest that affirming extreme ethical relativism is required or even truly defensible as a postmodern alternative.

10. Can love make an ultimate difference?

At the heart of the emerging interest in the love-and-science symbiosis is the presupposition that the activities of this field have the potential to enhance the common good. To say it more simply, this field presupposes that love can make progress.

Process theology, with its emphasis upon the freedom of actualities, the loving influence of God, and the genuine openness of the future, offers a conceptual home for those who believe that love can make progress. Marjorie Suchocki, near the end of her book, *The End of Evil*, offers the same conclusion although in differing words. "History can mirror a reconciliation of things in a peace which works the well-being of earth and its inhabitants," writes Suchocki. "Our freedom and finitude paradoxically hinder that task, and yet, with the ever-present empowerment of God, make it possible" (155). Unlike those who believe that human nature is so thoroughly corrupt that progress in love is impossible, and unlike those who believe that humans are so good and God both good and controlling such that progress

is inevitable, process thought suggests that progress is possible but not predestined. And that is a realistic message that supports the hopeful presuppositions of the love-and-science symbiosis.

III. Conclusion

A new day is dawning within that field of study – the science-and-religion dialogue – that process thinkers have long made and continue to make significant contributions. It may be that the process vision will be even more influential in providing answers to theoretical and existential questions emerging from work in the love-and-science symbiosis than it has been in providing answers to questions in the science-and-religion dialogue. At least the dawning of this new day generates such a grand hope!