Jnanadeepa

Pune Journal of Religious Studies
ISSN 2249-1503
www.punejournal.in

DOI: 10.5281/zenodo. 4264627

Stable URL: http://doi.org/10.5281/zenodo. 4264627

Is Science and Religion Multi-Cultural? Feminist & Postcolonial Perspectives

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Abstract: In this paper, I will address two issues in emerging postmodern thought that could be seen as problematic for the science and religion discourse (SRD). The first is the assertion, coming from postmodern (or, post-Kuhnian), feminist and post-colonial science and technology studies, that all knowledge systems - even modem western science - are culturally laden practices. Each of these approaches have convincingly argued that the purportedly neutral practice of western science is permeated with the interests and perspectives of those that develop and practice it. This includes the models and metaphors used to describe phenomenon, the methods and interests of science, the way data are interpreted, even the very notions of objectivity and rationality themselves. On the whole, science and technology studies have demonstrated that modem western science is thoroughly tied to modern western culture, its interests and perspectives. By extension, our understanding of "science and religion" is also culturally conditioned.

Keywords: Science-Religion Dialogue, Thomas Kuhn, Feminist perspectives, Multiculturalism.

Cited as:

Stenmark, Lisa L. (2002). Is Science and Religion Multi-Cultural? Feminist & Postcolonial Perspectives (Version 1.0). Jnanadeepa: Pune Journal of Religious Studies, January 2002 (5/1), 35-44. http://doi.org/10.5281/zenodo. 4264627

2002-01-05 | Updated on Nov 10, 2020

JPJRS 5/1 (2002) 35-44

Is Science and Religion Multi-Cultural?

Feminist and Postcolonial Perspectives

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In this paper, I will address two issues in emerging postmodern thought that could be seen as problematic for the science and religion discourse (SRD).[1] The first is the assertion, coming from postmodern (or, post-Kuhnian), feminist and post-colonial science and technology studies, that all knowledge systems – even modern western science – are culturally laden practices. Each of these approaches have convincingly argued that the purportedly neutral practice of western science is permeated with the interests and perspectives of those that develop and practice it. This includes the models and metaphors used to describe phenomenon, the methods and interests of science, the way data are interpreted, even the very notions of objectivity and rationality themselves. On the whole, science and technology studies have demonstrated that modern western science is thoroughly tied to modern western culture, its interests and perspectives.

By extension, our understanding of "science and religion" is also culturally conditioned. In other words, my understanding of "science," "religion" and even the idea of a "science" distinct from "religion," is embedded in the ideas, concepts and ideals of my particular history and culture, often to an extent that I cannot perceive.

A second and related issue is a growing awareness of the ways that western culture has privileged itself. This privilege is comprised in part by a kind of centering, whereby western perspectives and experiences are understood as generically "human" or somehow given, an understanding which easily precludes alternative perspectives. Centering can be marked by the assumption that western practices and modes of thought are more advanced, or simply a blindness to other ways of thinking. Of particular interest for the SRD is the postcolonial trajectory in science and technology studies, which examines the ways that western science and technology has both encouraged and profited from the devaluing of non-western modes of thought.

These two observations give rise to the question that I want to address in this paper: Given the local nature of "science and religion," should the sci-

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ence and religion discourse be global? At issue is the realization that the very ways that the issues are posed – our understanding of science, of religion and any distinction between them – may be so irretrievably intertwined with western thought and history that it is impossible to expand this conversation into non-Western cultures without descending into a kind of intellectual colonialism.

In this paper, I will begin by suggesting a few reasons why the SRD should be global, despite the local nature of its core assumptions. I will then address the issue of how to be global in constructive ways. While there are many different considerations and contributions that can be made by postmodern, feminist and post-colonial thought, in this paper I will focus on a theological trajectory, the post-liberal or narrative tradition, particularly as articulated by Stanley Hauerwas. I will show that this approach challenges a misconception about how to engage in a global discourse, and then discuss its paradoxical conclusion that the best way to be global is to be as particular as possible about our own religious commitments.

Should Science and Religion be Global?

Given the local nature of the concerns of science and religion, the first question to be addressed is whether a global SRD is desirable. Despite the cautions raised above, there are reasons why a global discourse is a good idea. The first reason is a practical one: the SRD needs to be global because western science is global. If this discourse is to engage science then we must engage it in the many places that it encounters religious traditions and beliefs. This includes traditions from around the world.[2]

Second, the global reach of western science means that in order to transform science – and I have written elsewhere that one of the goals of the SRD is and should be a transformation of western science – the SRD needs to be global. If the discourse is limited to western traditions, it will be narrowed to an extent that makes it essentially meaningless. To ignore western science as it engages the world is to ignore many of its most destructive (and constructive!) aspects and practices. A global conversation is a necessary part of the transformation of science.

The final reason that the SRD should be global is because western science and western religion share many of the same paradigmatic assumptions and thus each shares the partiality of western perspectives. If, as stated above, science is culturally laden, then science has been in part constituted by religious commitments, which are an important component of culture.[3] Of course, the reverse is also true: religion is culturally constructed, and science is a part of the culture that constructs it. In other words, science and religion are both parts of the cultural soup that is responsible for science, religion and science and religion.

Because science and religion are aspects of the same culture, they share paradigmatic assumptions. Thus, the discovery that the models and meta-

phors of modern western science and modern western religion resonate with one another, should not be a surprise. After all, they are offsprings of the same parents and grew up together; sometimes fighting, sometimes cooperating, but always under the same roof.

This paradigmatic inter-relationship means that western science and western religion share many of the same cultural blind spots and cannot always be critical of one another, especially not in relation to their fundamental assumptions. Virginia Woolf once observed that men need women writers in order to describe the spot on the back of their heads that they cannot see, no matter how they twist and turn. The SRD needs to be global for the same reason.[4] Western scientists and western religious thinkers need to be in conversation with those who challenge the basic assumptions they share. It should go without saying that we also need to be open to hearing that challenge and responding to it.

If there are good reasons to be global in this discourse, there are also dangers. Given these dangers, the question is how to engage multiple traditions in constructive ways and, in particular, to avoid treating a particular perspective as though it were universal. One initial reaction is that the best way to do this is to pull back on our religious values and commitments. For religious thinkers committed to a multi-cultural discourse, the SRD might seem the perfect approach because science provides a nice neutral territory to meet, without the land mines of reincarnation, Jesus Christ, Muhammad or the Wheel of Samsara. There are several reasons why this is the wrong approach, reasons which become apparent from within the post-liberal or narrative theological trajectory.

The Post-liberal Trajectory

Post-Kuhnian, feminist and post-colonial science and technology studies all provide ample argument that scientific concepts, theories, methodologies, and truths are not objective, but instead bear the marks of their collective and individual creators. The social location of the scientist not only influences the direction of science, it can influence the shape of science itself and even the truths it discovers. In all the ways that matter, science is a local knowledge. This argument is congruent with the post-liberal trajectory in theology.

Post-liberals, such as Stanley Hauerwas, argue that modern liberal culture is based on a denial of the importance of narratives – our already existing cultures, traditions and stories – in forming who we are. Within liberalism, it is assumed that it is both possible and desirable to be free from any reliance on cultural narratives and to focus instead on universals, such as rationality. In short, it is the position that we are free to create our own stories.

"Narrative" can mean several things. In one sense, it means the history of a particular group of people, the thing that makes them a community. More than a common history, a narrative is a common interpretation of that history, a common story. Narrative is also central to the formation of the self,

with the emergence of my self occurring through the construction of a personal narrative that exists within the broader cultural narrative. I was born into the world, a not-yet-developed self. The world acted upon me – both literally and through its story which framed my emergence into the world – and I acted back. It is through action, and the process of organizing that action into my own coherent narrative, that I become a self.

There are several implications of this approach for understanding science. Foremost is the assertion that there is no such thing as universals or absolute truths, distinct from a given culture. This assertion that the abstract reasoning mind is a fallacy arises from the view that individuals are always part of communities. Our true selves are made of the stuff of communal life and when we try to eliminate our attachments and commitments, "the self shrinks rather than grows" (Hauerwas and Willimon 1989: 65). Everything that I do or think takes place in the context of the community.

Certainly, thinking and acting are the purview of individuals. But all that persons think and do happens in and because a community sets the boundaries of possible thought and action and, perhaps more importantly, because a community creates a context in which what a person thinks and how that person acts makes sense. Absent a community, there is no person to act, and no context to act in.

This connection between persons, actions and communities is expressed in the concept of character: "it is character, inasmuch as it is displayed by a narrative, that provides the context necessary to pose the terms of the decision, or to determine whether a decision should be made at all" (Hauerwas 1977: 20). Character is **not** an ontological category, but is instead the intersection of person, action and culture. Character expresses a self that is constructed from action, which in turn intertwines that self with community.

It is part of the nature of action to connect us with others. As Hannah Arendt points out, action is almost always reaction, a response to or continuation of the action of others within the community (1958: 239).[5] Further, while a particular action may begin as an individual event, it only achieves fruition by drawing others in. The same action that forms persons, entangles them in community.

> The realm of human affairs, strictly speaking, consists of the web of human relationships, which exists wherever men live together. The disclosure of the "who" through speech, and the setting of a new beginning through action, always fall into an already existing web where their immediate consequences can be felt. Together they start a new process which eventually emerges as the unique life story of the newcomer, affecting uniquely the life stories of all those with whom he comes into contact (Arendt: 1958: 183-4).

Thus, action is embedded in a community, an "already existing web of human relationships, with its innumerable, conflicting wills and intentions" (Arendt: 1958: 183-4) that forms our character and makes action and thought

both possible and sensible. Who I am – formed and framed by community – is inescapably connected to what I do and what I think.

A narrative approach resonates with the assertion within contemporary science studies that rationality and explanations are themselves dependent on context – a narrative – to frame reason, and what "counts" as an explanation (Hauerwas 1977: 25). The narrative assertion that it is not possible to abstract oneself from one's culture is also congruent with the suggestion within contemporary science studies that neither science nor scientists are objective but are instead value laden and intertwined with cultural values and images.[6]

Global Discourse: The Wrong Way

The post-liberal trajectory suggests at least three problems with approaching a global discourse through the "neutral territory" of science. The first is that this is an incorrect understanding of science. Western science has been built in the image of western culture, denying its own context and claiming to be a universal, objective system of knowledge, distinct from values embedded in any particular community and transcending the biases and values of the scientist. Science lets the facts or data "speak for themselves" and lead us where they will. Thus, an abstract notion of truth becomes the final arbiter of action.

From this perspective, social influences may influence science only externally – perhaps in the area of regulation or making rules for the proper development and use of science – but that influence is not internal. The scientist is, and should be, able to work free from cultural influences. Religion is even further removed, relegated to the role of – preferably unspoken – commitments, which may or may not inform us in the making of rules. Any commitments we have should be translated into universal – rationally defendable! – terms and justifications, stated with sufficient abstraction that everyone can agree upon them without reference to a particular tradition: no Buddha, no Allah and God forbid (whoops!) we should mention Jesus Christ. We can say life is precious, we just can't say why we think so.

Abstracting science from culture and from religious commitments – even when the religious commitment is to be free from religious commitments – distorts science by ignoring the influence of culture, character, beliefs and disposition. It ignores how our beliefs shape perceptions, instead depicting the world as a "given." How we believe we are to be in the world and how the world "is" are not unrelated.

Harding and others have pointed out that culture dictates which aspects of nature we will encounter (Harding 1998: 62-64). Science is not distinct from culture, so it is not distinct from our religious commitments. These commitments make a difference in part because they provide the varying metaphors, models and language, which enable us to see our particular parts of the world in diverse ways. These metaphors, models and language both reflect and generate different interests on the part of scientists. They also generate systematic knowledge and ignorance.

These different contacts create different perspectives and different questions. They even produce different – sometimes-conflicting – answers. The influence of these varying differences is evident even within western sciences:

> The conceptual frameworks of modern physics, chemistry, and biology on the one hand, and environmental sciences on the other hand do not fit together perfectly. The latter require learning to negotiate between the principles of these modern sciences and of both local and social knowledge of environments, neither of which has a place in the conceptual frameworks of those modern sciences . . . . Indeed, the conceptual frameworks of those three modern sciences no longer appear unifiable (Harding 1996: 18).

Science is not a nice, neutral, inoffensive, value-free starting point. Using science as a starting point is, in fact, the old colonial standpoint that in the past has dis- or undervalued traditional viewpoints – particularly those that even hint at being "religious" – as being "less than" or not as reliable as scientific ones.

This leads to the second problem with using science as a neutral starting-point. Because we are all thoroughly embedded in culture, it is not possible to speak or act in a way that is free from culture and even the assumption that it is possible and desirable to be value-free is value-laden. As Sandra Harding observes, "atomism, value-neutrality, and reliance on method themselves reflect historically specific . . . social images of the self, other, and community" (Harding 1986: 234).

Because the expectation that one can and should be value-free is a culturally specific value, taking it as a given or privileging it can lead to all of the problems that come from privileging local knowledge. For example, the expectation that one will express one's religious perspectives in a way that is not grounded in the particular history and symbols of that tradition – i.e. relying on "rational" justifications – excludes those who do not value secularization or share a reliance on or definition of "rational."

Finally, even if it were possible to be value-neutral, this would lead to a conversation lacking depth and vision. In the words of Helen Longino, "[w]hen purged of assumption carrying social and cultural values [observation and reason] are too impoverished to produce scientific theories of the beauty and power that characterizes even the theories we do have" (Longino 1990: 219).

This is in part because our religious traditions and commitments are rich resources for science, and for thinking about the relationship between religion and science, because they supply models, metaphors and language which makes it possible to "see" things in new and different ways. The usefulness of religious language and metaphors in contributing to science is one of the basic insights of the SRD, beginning with Ian Barbour's work over 25 years ago (Barbour 1974).

Harding expresses it by asserting that cultures – which includes religion – are toolboxes that give us resources

for thinking (1998: 61-72) and post-liberal theory suggests it by asserting that culture makes it possible to do science by forming us as persons, and giving us the context in which to think.

Not all perspectives are the same, and we need to bring our religious commitments into the room if we are to enrich and engage science. If we leave our particular religious traditions at the door, we leave all of our best tools in the hall.

A Global Discourse: An Alternative

The post-liberal tradition not only raises questions about approaching a global SRD via western science, it suggests an alternative. From the perspective of this approach, the way to be more open – and more effective – in the SRD is not to retreat from religious commitments but to be more overt. The premise that our knowledge systems – including science – are grounded in particular traditions implies that any contributions we make to science and/or religion we make as Hindus, Christians, Buddhists, Muslims and so forth. It matters that I am Christian or, more precisely, Lutheran. It matters both because my tradition shapes my perspective on science, religion and their relationship and because my tradition contains myths, models and conceptions that are valuable for understanding and transforming the sciences. It I try to hide my particularity, I not only distort and misrepresent my perspective, I lose valuable conceptual resources.[7]

Even if I wanted to abandon the distinctively Christian aspects of my position, I could not do so without rendering my position unintelligible. A Christian perspective cannot be stripped of, for example, Christological language or the tradition that frames that language and that perspective without making it meaningless. My positions are not "reasonable," outside of my tradition. My worldview is based on my belief that this world is created and sustained by God. My expectations of how we should act in and towards that world are based in the belief that it is the way God has acted and that that is the way God wants us to act.[8]

It is also important to speak from within the Christian tradition because the story of western science is intertwined with western culture and thus with western Christianity.[9] Carolyn Merchant, for example, has shown how prior to the 16th Century, nature was seen as female: a mother, a lover, etc., and as a living, dynamic entity with a body and a soul. This conception carried with it an ethic of care towards nature that was marked by moderation. In the 150 years from Copernicus to Newton, this view completely changed and nature became a machine, made up of discrete, interchangeable parts. Nature was no longer alive, with no spirit and no animation, and could be exploited at will.

This change had a religious dimension. Merchant, Rosemary Radford Reuther, Evelyn Fox Keller and others have argued that the scientific revolution was a child of the Reformation in that the removal of the divine presence from within nature contributed to the transformation from Mother to machine. In addition, human beings were seen to have fallen from innocence at the same time they fell from dominion. Innocence

could be regained through religion, dominion through science (*techne*). It was the duty of the scientist – ordained by God – to extract the truth from nature, by force if necessary, and through knowledge of nature, command and control it.

This intersection between the Christian tradition and western science makes Christian particularity all the more important because Christians are "in the belly of the beast," so to speak. Much of what has been destructive in western science has happened because Christians have abrogated their responsibility to be critical of western culture, including science and technology. This happened in part because Christians fell for the myths of a "sacred" secular sphere and notions of individualism. In so doing, we made it difficult to assess the ways that Christian convictions can constructively contribute to the practice of science. Christians need to take responsibility for our failure, and work to correct the excesses of the past.

Most importantly, my speaking as a Christian, while others speak as Hindus, Buddhists, or atheists, does not exclude all dialogue. On the contrary, it opens up space for conversation. It is approaching the SRD through a science that is idealized as an abstract, "rational," neutral territory that restricts discussion because if abstract rationality is the basis for discussion, then if we disagree, one of us is irrational (and it ain't me). But, when disagreements are based in a particular tradition, then they are based in our different stories. This makes it possible to talk about and understand our real differences and why they exist. Suddenly, it becomes possible to make informed, thoughtful decision about which particular perspectives – which tools – are the most appropriate for a particular task.

Conclusion

I do not mean to be naïve in suggesting that we be particular about our religious commitments. I am not unaware that approaching a global SRD thorough our religious commitments is also fraught with danger, and that religion has a past that is even more destructive than science. But, I believe that a commitment to our particular religious traditions is a much less dangerous path than denying them, and more likely to lead towards a destination that fulfills our hopes for western science.

I also recognize that, while I have given some justification for being particular about our religions beliefs, I have not given particulars for how to do that. Unfortunately, that lies outside the scope of this paper. My goal has been merely to suggest a direction, not dictate the path. I do hope that there was enough here to at least suggest that feminist, postmodern and postcolonial discourses are fertile resources for thinking of some specifics on how to be global in a way that can be truly positive. This includes the need to rethink many of our central questions through the lives and experiences of non-Westerners and the recognition that different cultures have distinct resources, which can be useful in addressing questions of science and religion. If religion and science can start

from different locations – from different understandings of science and religion – we can get a fuller picture of both, and of how to see them as interacting.

The goal of the SRD is not to begin with science and then somehow reconcile it with religious traditions, as if to legitimate either those traditions or science. Our goal is to ask questions and to move western science from its place of privilege as a knowledge system. Paul Tillich – a theologian from my own tradition of Lutheranism – described theology as a dialectic in which culture asks the question and religion provides the answers. If the SRD is to be global in a positive and transformative way, then I suggest that Tillich had it exactly wrong. In the SRD, our job as persons of faith is to challenge those aspects of culture that purport to have all the answers – whether that is western science, or any other particular perspective – and to ask pointed questions.

Notes

1. The "science and religion discourse" includes an incredibly diverse number of perspectives, approaches, methods and interests. Until a few years ago, its "fuzzy cannon" included the work of (i.e.) Ian Barbour, John Polkinghorne, Arthur Peacocke, Phil Hefner and the research being done at such institutions as the Center for Theology and the Natural Sciences (Berkeley) and the Philadelphia Center for the Study of Religion (Philadelphia). It also included publications such as *Zygon* and the online journal *Metanexus*. In the past five years there has been an exponential expansion of the discourse so that it is difficult to delineate, although these authors, centers and publications remain pivotal. For the purposes of this paper, SRD will refer to the explorations of the relationship between western science and religious values and commitments. This definition will likely become too narrow very quickly, precisely because of the global expansion of the discourse, which I address in this paper.
2. I will not address the issue of whether western science should be global. There are convincing arguments that the negative effects of the spread of western science and technology outweigh the positive ones, and that we should turn to indigenous sciences. As convincing as these arguments might be, they are largely moot. Western science is global, and it will remain so for the foreseeable future. A more helpful discussion would address ways to avoid—or mitigate—western hegemony and the damage it brings.
3. For a more in depth discussion of the connection between western religion and science, see Carolyn Merchant's, *Death of Nature: Women, Ecology, and the Scientific Revolution* (San Francisco: Harper, 1976), Rosemary Radford Ruether, *Gaia & God: An Ecofeminist Theology of Earth Healing* (San Francisco: Harper San Francisco, 1992), Margaret Wertheim, *Pythagoras' Trousers: God, Physics, and the Gender Wars* (New York: Random House, 1995).
4. And I hope I might be forgiven if I confess that I suspect that that spot on the back of the head of both science and religion shows evidence of male pattern baldness.
5. Interestingly, Arendt suggests that the only truly original act is forgiveness. All other actions are in some sense a continuation of what came before, only forgiveness is something new.
6. The literature on this is voluminous, but would include the works of Sandra Harding, Evelyn Fox Keller, Bruno Latour, Jean-Francios Lyotard, Helen Longino and scores of others.

7. This is not to say that Christianity is the only tradition that has anything to contribute. Christian perspectives are distinctive, and they have valuable and distinct contributions to make, but they are not universal.
8. This does not mean that Christian convictions can only be judged within that community. These are not immune to challenge from those who do not share our convictions. But those challenges and that discussion can only happen from a position of particularity.
9. For an excellent discussion, Merchant, *Death of Nature*; Reuther, *Gaia and God*; Keller, *Secrets of Life, Secrets of Death.*

References

Arendt, Hannah

1958 *The Human Condition*, Chicago: University of Chicago Press.

Barbour, Ian G.

1974 *Myths, Models and Paradigms: A Comparative Study in Science and Religion*, New York: Harper&Row.

Harding, Sandra

1986 *The Science Question in Feminism*, (Ithaca, NY: Cornell University Press.

1996 "Science is Good to Think With," *Science Wars*, Andrew Ross (ed.), Durham, NC: Duke University Press.

1998 Is Science Multicultural?: Postcolonialisms, Feminisms, and Epistemologies, Bloomington, IN: Indiana University Press.

Hauerwas, Stanley

1977 "From System to Story," in *Truthfulness and Tragedy: Further Investigations in Christian Ethics*, by Stanley Hauerwas, with Richard Bondi and David Burrell, Notre Dame: University of Notre dame Press.

Hauerwas, Stanley and William H. Willimon

1989 *Resident Aliens: Life in the Christian Colony*, Nashville, TN: Abingdon Press.

Longino, Helen

1990 Science as Social Knowledge, Princeton: Princeton University Press.

Merchant, Carolyn

1976 *Death of Nature: Women, Ecology, and the Scientific Revolution*, San Francisco: Harper.

Ruether, Rosemary Radford

1992 *Gaia & God: An Ecofeminist Theology of Earth Healing*, San Francisco: Harper San Francisco.

Wertheim, Margaret

1995 *Pythagoras' Trousers: God, Physics, and the Gender Wars*, New York: Random House.