

Stanley Hauerwas, and concludes that Ecclesial Ethics can become Public Ethics through public language and public reason.

In "Christian Service for Soldiers in Sino-Japanese War: The History of the National Christian Service Council for Wounded Soldiers in Transit" by Chan Chi-hang, the paper first presents the history of the National Christian Service Council for Wounded Soldiers in Transit in the period of Sino-Japanese war, focusing on her formation and services; then the paper mainly studies how the Council was involved in the political conflicts between Chinese National Government and Chinese Communist Party, and concludes that the Council was originally formed for social services, but sadly it was finally involved in struggles between political parties.

In "An Evaluation of Charles Kraft's Theological Method and His Theory of 'Power Transferral,'" Herrick Liu reviews the theories by Charles Kraft, a leader in the Inner Healing Movement of the Third Wave. Liu first reviews Kraft's method on his studies, and concludes that Kraft has already deviated from traditional evangelical theological foundation, including his rejection of grammatical-historical exegesis and adoption of New Hermeneutics. Liu then reviews Kraft's theory on authority and power: a certain degree of authority has been moved from God to human, and to Satan; this theory leads a thorough criticism from Liu.

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REFLECTION ON MODELS OF SCIENCE-RELIGION DIALOGUE AND EVALUATION OF THE INDEPENDENCE MODEL

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I. Introduction: Integration of Faith and Disciplines

I believe it is the mission of Christian scholars to perform the task of the integration of faith and learning. This task has a Christological basis, i.e., it is based on commitment to the belief that in Christ all things hold together (Col. 1:17). Its goal is to discover this ultimate coherence and unity of truth. However, what is genuine integration and how should we integrate? These questions are not easy to answer.

On the one hand, we need to beware of the danger of pseudo-integration, which uses "the data from the disciplines for illustrative, devotional, or apologetic purposes. They use the disciplines, but are quite irrelevant to doing the disciplines. Nothing in these examples requires the person to be inside the assumptions, concerns, and methodologies of the disciplines mentioned. It is the wholly external

setting of Christian and disciplinary ideas side by side that makes these into superficial or negative instances of integration."¹ An example of pseudo-integration: "2 and 2 is always 4 ... and God is always the same; you can depend on Him." In contrast, "[g]enuine integration occurs when an assumption or concern can be shown to be internally shared by (integral to) both the Judaeo-Christian vision and an academic discipline."² On the other hand, others warn against forced "integration" which tries to impose a kind of contrived harmony on two radically different things. The result may be the distortion of both science and religion. To avoid these two extremes, we need to have a clear conception of different types of integration.

Following Nelson,³ three approaches to integration can be roughly distinguished:

- (I) compatibilist: locate and integrate compatible elements indigenous both to the scholar's Christian faith and to his discipline;
- (II) reconstructionist: emphasizing the radical demands of the Christian faith, and seeing no substantial common ground between a discipline and the faith, it attempts a complete reconstruction of the discipline;
- (III) transformationalist: recognizing a measure of common ground but also trying to do justice to the sovereign and comprehensive claims of Christ, it seeks a disciplinary transformation.

I think a certain kind of integrative pluralism is unavoidable. Since the nature of each discipline is in some sense unique and its current

¹ David L. Wolfe, "The Line of Demarcation between Integration and Pseudointegration," in *The Reality of Christian Learning: Strategies for Faith-Discipline Integration*, ed. Harold Heie and David L. Wolfe (St. Paul, Minn.: Christian University Press, 1987), 4.

² Ibid., 5 (italics in original).

³ Ronald Nelson, "Faith-Discipline Integration: Compatibilist, Reconstructionist, and Transformationalist Strategies," in *The Reality of Christian Learning: Strategies for Faith-Discipline Integration*, ed. Heie and Wolfe, 317.

state of development is affected by historical contingencies, the suitable approach to integration should vary with the discipline. For example, the compatibilist model may be suitably applied to the integration of chemistry or physical geography with the faith. A reconstructionist model may be applicable to a contemporary philosophy of mind, which is dominated by naturalistic assumptions. A transformationalist model seems best for the integration of psychology and faith. It is because within psychology, there are both more empirically grounded "facts" and higher-level assumptions about humanity. To a large extent, Christian scholars can accept the former but they must critically evaluate the latter lest reductionistic assumptions masquerade as facts. So the discussion of the models in general may help to clarify issues but the models cannot replace the detailed exploration of the best approach in each discipline. That is also why the success of Christian scholarship depends on long-term and collective efforts of a community of dedicated Christian scholars.

However, the concepts of compatibility, transformation, etc. are still very vague, and they need further elucidation. Since these problems have been extensively discussed by scholars working on the science-religion dialogue,⁴ I would first like to survey the existing models of dialogue, and then discuss the Independence Model in some detail. Hopefully we can arrive at a better understanding of the how and why of the integration of faith and natural science. This may also stimulate us to reflect on models of integration in other disciplines.

II. Models of the Science-Religion Dialogue: A Preliminary Classification

Religion used to be the core of civilization. However, in the wake of the scientific and technological revolutions, this role has largely been

⁴ "Science" here mainly refers to natural sciences, and I will focus on Christianity as a representative religion.

taken up by science. Some sociologists have predicted the demise of religion but at this moment this radical thesis of secularization has not been substantiated. Although the influence of religion has been severely weakened, different types of religion in all likelihood will continue to exist even in modern or postmodern societies. So it is incumbent on us to investigate the relationship between these two important elements of our civilization. As Whitehead says, "When we consider what religion is for mankind, and what science is, it is no exaggeration to say that the future course of history depends upon the decision of this generation as to the relations between them."⁵ Ken Wilber also believes that "science is clearly one of the most profound methods that humans have yet devised for discovering truth, while religion remains the single greatest force for generating meaning...but we still cannot figure out how to get the two of them together in a fashion that both find acceptable... This is a massive and violent schism and rupture in the internal organs of today's global culture, and that is exactly why many social analysts believe that if some sort of reconciliation between science and religion is not forthcoming, the future of humanity is, at best, precarious."⁶ By integrating science and religion, we "would unite the best of premodern wisdom with the brightest of modern knowledge, bringing together truth and meaning."⁷

However, both science and religion are multi-faceted entities. The relationship between them is very complex, and scholars have proposed different models to understand it. I provide a preliminary classification scheme below, and more detailed discussions will follow.

- (I) Science and religion are two radically different types of activity/practice. Science is a cognitive enterprise in search of the truth about an objective reality. In contrast, religion is basically a kind

⁵ Alfred North Whitehead, *Science and the Modern World* (New York: Free Press, 1967), 181.

⁶ Ken Wilber, *The Marriage of Sense and Soul: Integrating Science and Religion* (Dublin: Newleaf, 1998), 3-4.

⁷ Ibid., 14.

of myth constructed by a particular culture to express feelings and values, and to guide behaviour. The myth and ideas of religion are not supposed to be descriptive of the universe. In short, this model adopts a realist interpretation of science, and a non-realist interpretation of religion.⁸

- (II) Science and religion are basically the same type of activity/practice.
- (A) Non-realism: Both are socially constructed myths and interpretations. (Postmodernism; extreme science studies.)
- (B) Realism: Both are basically cognitive enterprises in quest of the truth about objective reality.
- (III) In some respects, science and religion are very different types of activity/practice, but in other significant respects they are similar. The primary purposes of religion are at the same time cognitive and practical (ethical and social). The two dimensions are inseparable. The primary purpose of science is cognitive but it is grounded in a social practice (community). Moreover, scientific theories will have implications for values, and concrete influence on our ways of life. So despite the differences, both science and religion have important similarities:
- they all have cognitive, ethical and practical dimensions;
 - they both attempt to describe the same world.

On model (I), it is senseless to talk about integration of science and religion although it is still possible to propose functional complementarity. Science gives us the truth. Although religion is non-cognitive, its myths can still be comforting for some people. So it is conceivable that religion can play an important role in the modern society. However, this understanding of religion is not true to the self-

⁸ Logically speaking, there exists a variant of this model which adopts a realist interpretation of religion, and a non-realist interpretation of science. However, I am not aware of any serious scholar who proposes this alternative.

understanding of most religious believers. Moreover, in the long run, it is impossible to dissociate the function from the truth of religion. So this model in fact leads to the unjustified rejection of religion. On model (IIA), interaction or "integration" of science and religion are indeed possible but they would be arbitrary or pointless. If both are just myths, it would not be difficult to blend them together — and this is exactly the problem. The integration may be performed for all sorts of idiosyncratic reasons. Reality or logic has no control over this kind of integration, and the integration will not lead us to a more complete truth in any case.⁹ On model (IIB), interaction between science and religion is possible but I think this position over-simplifies the nature of both science and religion. Anyway, model (III) contains the major merits of this position.

I think model (III) is a more realistic description of both science and religion. On this model, there can be different types of integration of science and religion:

- Functional complementarity: science provides us the truth about the natural world, and religion tells us the meaning of life. Together they contribute to a good life and a harmonious society.
- Practical integration: since both science and religion have ethical and practical dimensions, it is possible to mobilize them together in service of a common cause, e.g., environmental conservation.
- Cognitive integration (if any): since both science and religion contain cognitive elements (I call them scientific propositions and theological propositions), it is possible to build bridges between these two types of proposition, or even synthesize

⁹ Wilber comments on this postmodern approach: "In attempting to shoot science in the head, it simply kills that which it should be integrating, It denies that which should be embraced. It sabotages the desired wedding by murdering one of the spouses" (p. 23). Also see Wilber, *The Marriage of Sense and Soul*, chap. 3.

them into a single intellectual framework. Alternatively, it may be possible to show that although the scientific method and the theological method have differences, they also possess significant structural similarities. However, this possibility cannot be assumed at this stage because some interpretations of this model will render cognitive integration impossible. I will consider the issue of cognitive integration of science and religion in more details below.

III. Models of Cognitive Integration of Science and Religion

While many scholars agree that both science and religion have cognitive dimensions, their views on their cognitive integration belong to two different types:

(IIIA) Scientific propositions and theological propositions belong to non-overlapping domains. (Independence/Isolation)

- (1) Scientific propositions and theological propositions describe two completely different parts of reality respectively. (Two Realms Model)
- (2) Although scientific propositions and theological propositions sometimes describe the same reality, they provide non-interacting levels of description or kinds of explanation of that reality. (Complementarity of Levels Model)
- (3) The methods to arrive at scientific and theological propositions are radically different. Both are valid in their own domains. (Methodological Pluralism)¹⁰

¹⁰ Usually (3) is added onto either (1) or (2).

(IIIB) Scientific propositions and theological propositions belong to overlapping domains. (Interaction/Dialogue)

- (1) On the whole, these two types of proposition conflict with one another. (Conflict)¹¹
- (2) On the whole, these two types of proposition do not conflict with one another. (Worldview Integration)
 - (a) These two types of proposition are compatible but there is not much positive coherence. (Marginal/Minimal Overlap)
 - (b) These two types of proposition are positively coherent with one another to differing degrees. (Consonance/Convergence)
 - (c) These two types of proposition mutually support one another considerably. (Consilience/Confirmation)
- (3) The methods to arrive at scientific and theological propositions are structurally similar in significant aspects. (Methodological Integration)¹²

In the rest of this paper I will briefly look at the Conflict Model and then explain how the Independence Model can be used to neutralize the challenge of this model. However, I will also point out some limitations of the Independence Model. So it seems plausible that some kinds of Models of Positive Integration are the best way forward. However, due to limitations of space, I can only make gestures toward this kind of integration at the end, and leave a detailed exploration of this model to other papers.

¹¹ Scientism obviously belongs here. It is debatable whether Fundamentalism also belongs to this category. At first sight, fundamentalists promote creation science and wage a battle on widely accepted scientific theories like the Big Bang Theory or evolution. So they believe that scientific and theological propositions on the whole conflict with one another. However, in fact they believe that genuine science will conform to the theological propositions they believe in, and they are only waging a war against pseudo-science. Cf. Ted Peters ed., *Science and Theology: The New Consonance* (Boulder, Colo.: Westview, 1998), 16.

¹² This third thesis can be combined with (1) or (2) in a variety of ways.

IV. Model of Negative Interaction: Conflict Model

For those who believe that science and religion do come into interaction or dialogue, quite a number of them, e.g., the advocates of scientism, think that the "dialogue" is in fact a very unfriendly one, and conflict is the main thing during the interaction. Many "believers" in science have tried incessantly to push the agenda of scientism (cf. Appleyard's survey).¹³ For example, the biologist Richard Dawkins is famous for his boundless faith in science in general, and Darwinism in particular. The latter theory is not only a theory about the origin of life and species, but also a comprehensive paradigm which entails the sociobiological approach to humanity, morality, society, and indeed everything else. Dawkins is not alone in upholding this approach. Wilson and the philosopher Michael Ruse are two other outspoken proponents of the Darwinian approach to life and morality. For Dawkins, it was "Darwin who first put together a coherent and tenable account of why we exist"; he lamented that "philosophy and the subjects known as 'humanities' are still taught as if Darwin had never lived."¹⁴ He even quoted G. G. Simpson approvingly: "all attempts to answer that question (What is man?) before 1859 are worthless, and that we will be better off if we ignore them completely". For Dawkins, the key to all human phenomena is our selfish genes:

we, and all other animals, are machines created by our genes.... the predominant quality to be expected in a successful gene is ruthless selfishness. This gene selfishness will usually give rise to selfishness in individual behavior.¹⁵

Dawkins never conceals his contempt for religion, and theology for him is a non-subject. In 1993, Cambridge University was planning

¹³ Appleyard, *Understanding the Present: Science and the Soul of Modern Man* (London: Pan, 1992).

¹⁴ David Holbrook, *Evolution and the Humanities* (Aldershot, Hampshire: Gower, 1987), 94.

¹⁵ Ibid., 95.

to establish the Starbridge Lectureship in Theology and Natural Science. Dawkins protested in a letter to *The Independent* (20 Mar. 1993):

the achievements of theologians don't do anything, don't affect anything, don't achieve anything, don't even mean anything. What makes you think that "theology" is a subject at all? ¹⁶

Though Dawkins does not explicitly advocate the abolition of other humanities subjects apart from theology, Holbrook, an English Professor at Cambridge, feels keenly the implicit threat posed for the humanities by the Darwinist outlook. This is the crux of the problem because the Darwinian picture will exclude mind and consciousness from reality:

We know that our own consciousness, our own being-in-the-world, our own cultural achievements are primary to us. Yet such is the authority of science that it seems we must ... exclude from its realities the very manifestations of human culture and consciousness with which we deal in humanities. ¹⁷

He thinks that "we need to heal the gap between objective and subjective disciplines, and develop a holistic way of understanding the world and ourselves. This healing is of profound importance to the Humanities and to poetry—indeed to all literature and the Arts, for it requires a new investigation of man's place in Nature." ¹⁸

Despite the humanists' affirmation of the irreducibility of human subjectivity, other fellow travellers of Dawkins like Daniel Dennett and Paul Churchland (proponent of the so-called eliminative materialism) continue to push the mechanistic model to explain away

¹⁶ Not all scientists agreed with Dawkins. For example, Max F. Perutz, Nobelist in chemistry in 1962, responded: "Scientists may not believe in God, but they should be taught why they ought to behave as if they did." He preferred a chair in "science and ethics" but "science and theology" was the next best thing to counter "the increasingly prevailing law of the jungle in the scientific world." (*The Independent*, 22 Mar. 1993)

¹⁷ Holbrook, *Evolution and the Humanities*, 4.

¹⁸ *Ibid.*, 193.

the last stronghold of the humanities, consciousness itself. Of course, proponents of scientism are not confined to the biologists. Peter Atkins, a chemist, and Stephen Hawking, a famous physicist, put their faith in physics which, they are confident, can explain literally everything. For example, Atkins says exuberantly that "there is nothing that cannot be understood, that there is nothing that cannot be explained, and that everything is extraordinarily simple." ¹⁹

In recent years, Dawkins has even stepped up his attack on religion. In a two-part series *The Root of All Evil?* on Channel 4 Television in Britain, which was shown in January 2006, Dawkins argued that religion is not only irrational, but also positively evil and harmful. In 2006 he published *The God Delusion*, which summarized his case against religion, and his arguments for a kind of in-your-face atheism. Dawkins' atheism is a radical one: "I am attacking God, all gods, anything and everything supernatural, wherever and whenever they have been or will be invented." ²⁰ Dawkins admits he cannot strictly disprove the existence of God. However, he believes that "we can say something pretty strong about the probability," ²¹ and this is "very low."

Dawkins thinks that religion is also a scientific theory (only a very bad one): "The presence or absence of a creative super-intelligence is unequivocally a scientific question... So also is the truth or falsehood of every one of the miracle stories that religions rely upon to impress multitudes of the faithful... The methods we should use to settle the matter, in the unlikely event that relevant evidence ever became available, would be purely and entirely scientific methods." ²² If so, then science and religion can indeed come into conflict, e.g., the conflict of design and evolution: "the hypothesis of ultimate design, and ... gradual

¹⁹ Peter Atkins, *The Creation* (W.H. Freeman and Co., 1981), 3.

²⁰ Richard Dawkins, *The God Delusion* (London: Bantam, 2006), 36.

²¹ *Ibid.*, 48.

²² *Ibid.*, 59.

evolution ... are close to being irreconcilably different. Like nothing else evolution really does provide an explanation for the existence of entities whose improbability would otherwise, for practical purposes, rule them out."²³ So science and religion are competitors. Indeed, they are gladiators who must fight to the very end, and only one of them can leave alive. For Dawkins, the victor no doubt is science.

I will not discuss in detail the above arguments for scientism. Firstly, I have a detailed critique of Dawkins elsewhere.²⁴ Second, they seem to be mainly based on two views: (1) a positivist type of epistemology which recognizes the objectivity of the scientific method alone; (2) the belief that the contemporary scientific worldview renders the major tenets of religion untenable or entirely redundant. That both these views are mistaken has already been ably argued by many scholars.²⁵ In fact despite the efforts of Dawkins and his fellow new atheists like Christopher Hitchens, their Conflict Model is no longer the mainstream view among the scholars working on the science-religion dialogue. Not that all of them are religious believers, but that even many atheists recognize that the conflict between science and religion is by no means inevitable. They have tried to show that by elaborating several versions of the Independence Model, which will be examined below.

V. Models of Independence/Isolation

1. Two Realms Model/ Compartmentalization Model

According to this model, scientific propositions and theological propositions belong to non-overlapping domains because scientific

²³ Ibid., 61.

²⁴ Kwan Kai-man, "On Richard Dawkins' Atheism and His Criticisms of the Design Argument." (Forthcoming)

²⁵ Example: Kwan Kai-man, "Thomas Kuhn's Philosophy of Science and Rationality in the Liberal Arts Tradition," *ACUCA Exchange* 8(June 1998): 85-147; Arthur Peacocke, *Intimations of Reality: Critical Realism in Science and Religion* (Notre Dame, Ind.: University of Notre Dame Press, 1984); John Polkinghorne, *Reason and Reality* (London: SPCK, 1991); Richard Swinburne, *The Existence of God* (Oxford: Clarendon, 1978).

propositions and theological propositions describe two completely different parts of reality. One representative proponent of this approach is the famous agnostic paleontologist Stephen Jay Gould. Gould proposed a peace-making formula he called NOMA— non-overlapping magisteria. (*Magisterium* is Latin for "teaching authority.") The magisterium of "science covers the empirical realm: what is the universe made of (fact) and why does it work this way (theory). The magisterium of religion pertains to questions of ultimate meaning and moral value. These two magisteria do not overlap... science gets the age of rocks, and religion the rock of ages; science studies how the heavens go, religion how to go to heaven."²⁶ If this is true, he concludes, "I do not see how science and religion could be unified, or even synthesized, under any common scheme of explanation or analysis; but I also do not understand why the two enterprises should experience any conflict."²⁷

Gould's principle of NOMA does have some merits. It acknowledges the importance of questions about values and meaning of life, and tries to limit scientism's imperialistic claim of jurisdiction over ethical questions.²⁸ It aims at promoting peace, and allows even for co-operation between the two magisteria: "Any interesting problem ... must call upon the separate contributions of both magisteria for any adequate illumination."²⁹ Science and religion are, like yin and yang, inseparable but utterly different.³⁰ He also warns against false fusion or cheap integration.

As expected, Dawkins is not happy with the principle of NOMA: "Despite the confident, almost bullying, tone of Gould's assertion, what,

²⁶ Stephen Jay Gould, *Rock of Ages: Science and Religion in the Fullness of Life* (New York: Ballantine, 1999), 6.

²⁷ Ibid., 4.

²⁸ Ibid., 54-55.

²⁹ Ibid., 65.

³⁰ Ibid., 67.

actually, is the justification for it? Why shouldn't we comment on God, as scientists?"³¹ Martin Rees, a distinguished Cambridge astronomer, is also taken to task by Dawkins because Rees raises two ultimate questions and then gives a NOMA-friendly answer: "The pre-eminent mystery is why anything exists at all. What breathes life into the equations, and actualized them in a real cosmos? Such questions lie beyond science, however: they are the province of philosophers and theologians." Dawkins has only contempt for this kind of attitude: "I would prefer to say that if indeed they lie beyond science, they most certainly lie beyond the province of theologians as well."³² Dawkins queries, "What on Earth *is* a why question? ... Some questions simply do not deserve an answer. ... Nor, even if the question is a real one, does the fact that science cannot answer it imply that religion can."³³

However, Dawkins' "confident, almost bullying" retort only reveals his unreflective scientism. It is not really controversial to say that the scientific method itself has some basic assumptions and limitations. For example, it already assumes the existence of an orderly cosmos, and limits itself to the physical aspects of this cosmos. So the reason why scientists shouldn't comment on God *as scientists* is simply that the question of God is not one area among the scientists' expertise. Moreover, since the existence of the cosmos (and its order) is the basic presupposition of science, science itself cannot explain why anything exists at all, or why the existing things manifest a kind of intricate order. Isn't it obvious that science itself cannot "breathe life into the scientific equations, and actualized them in a real cosmos?" If there are answers to these ultimate questions, then at least the theological idea of a rational Creator is a promising candidate. Dawkins just seems reluctant to acknowledge the limitations of science, and the possibility that the

³¹ Dawkins, *The God Delusion*, 55.

³² Ibid., 55-56.

³³ Ibid., 56.

theologians may be right after all. Only in this way can he dogmatically force all questions into the framework of the empirical sciences. In acknowledging the limits of scientific explanation in the realm of ethics and ultimate questions, Gould and Rees seem to be wiser than Dawkins.

However, despite the merits of the Compartmentalization Model, it also has limitations. When we look at it more closely, we may be able to detect a wicked smile on the apparently benign face of NOMA. Gould boldly proposes the first commandment for all versions of NOMA: "thou shalt not mix the magisteria by claiming that God directly ordains important events in the history of nature by special interference knowable only through revelation and not accessible to science."³⁴ So miracles and revelation are out of the question, and this is regarded as a fact. Gould does not provide serious arguments for his bold claim. He just dismisses his opponents, and suggests that they suffer from psychological weakness, e.g., inordinate yearning for comfort. In the end, Gould admits that "NOMA does impose this 'limitation' on concepts of God,"³⁵ and that "NOMA imposes requirements that become very difficult for many people... NOMA does challenge certain particular (and popular) versions of religious belief."³⁶ "NOMA therefore cannot expect to sweep toward victorious consensus amid universal smiles, and shouts of hosanna from both sides. But NOMA's success can only be liberating and expansive for all seekers of wisdom."³⁷ So the price for peace is in fact the sanctioning of all politically incorrect religious views. Gould can still pretend to show respect for religion only because he imposes a very wide interpretation on the word "religion": he will "construe as fundamentally religious ... all moral discourse on principles that might activate the ideal of universal fellowship among people."³⁸

³⁴ Gould, *Rock of Ages*, 84-85.

³⁵ Ibid., 85.

³⁶ Ibid., 93.

³⁷ Ibid., 95.

³⁸ Ibid., 62.

While Gould claims that he is no atheist, at several places his atheistic view does shine through his eloquent words: "*Homo sapiens* also ranks as a 'thing so small' in a vast universe, a wildly improbable evolutionary event, and not the nub of universal purpose... Some people find the prospect depressing. I have always regarded such a view of life as exhilarating—a source of both freedom and consequent moral responsibility. We are the offspring of history, and must establish our own paths in this most diverse and interesting of conceivable universes—one indifferent to our suffering, and therefore offering us maximal freedom to thrive, or to fail, in our own chosen way."³⁹

Besides a violation of his NOMA, these claims also inherit one weakness of the atheistic, naturalistic worldview: it cannot provide solid foundation for the objectivity of moral claims and the universality of moral responsibility. I think Gould does want to take morality seriously but in the end the cognitive status of moral claims is thrown into doubt in his worldview. Since moral claims can never be settled with reference to facts, they can only be decided according to our subjective preferences: "when we reject the siren song of false sources, we become free to seek solutions to questions of morals and meaning in the proper place within ourselves."⁴⁰ I just can't see what can provide limits to this kind of freedom to legislate on morals. His derivation of moral responsibility is also woefully inadequate. Let us set aside the question why he can speak of meaningful freedom in a world governed by chance and necessity alone. He claims that since we are free to choose our values, we are *consequently* morally responsible. However, even if one is responsible for the choice of one's values, it does not follow that his choice is informed by a sense of moral duty or conforms to the dictates of morality.

³⁹ Ibid., 206-207.

⁴⁰ Ibid., 197.

Gould furiously attacks all attempts to promote integration of science and religion⁴¹ but he does not seem to show real understanding of those arguments. His NOMA becomes for him a mental straitjacket, predisposing him to dismiss all claims to integration as violation of his first commandment before careful considerations of those claims. NOMA may seem to leave a space for religion to exist but the underlying motivation is to avoid the interference of science by the falsehood of religion. Gould anticipates this query: "Why shouldn't readers view me as just another arrogant scientist, hypocritically claiming noninterference based on deep respect and affection while actually attempting to demote religion to impotence and inconsequentiality?"⁴² Yes, why not indeed?

The basic problem with all types of Compartmentalization Model is that they have absolutized a partial insight. To some extent, science and religion do cover different aspects of the world. However, it is quite impossible to find a compartment which can *completely insulate* religion from other cognitive claims unless it is stripped of all cognitive content in the first place. Apparently, despite their differences, both science and religion refer to the same world, and religion contains a comprehensive worldview which has *possible* bearing on every part of the world.

2. Complementarity of Levels Model

Another attempt to explicate the Independence Model is to acknowledge that scientific propositions and theological propositions sometimes describe the same reality. However, they provide non-interacting levels of description or kinds of explanation of that reality. So they cannot contradict one another. For example, both science and religion talk about the universe. While science provides answers to the What and How questions, religion provides answers to the Why questions. True, they are *about* the same world but they still cannot conflict. It is because they give answers to radically different types of questions.

⁴¹ Ibid., 214-19.

⁴² Ibid., 59.

More sophisticated scholars point to the fact that the same thing admits of different levels of description. Each level can be as complete as it can be but still they will not compete with one another. Proponents of this approach include the computer scientist Donald Mackay and psychologist Malcolm Jeeves. For example, how can we describe the thing below?

I LOVE YOU !

- a. On the physical level, they are atoms which reflect certain wavelengths of light, etc.
- b. On the chemical level, they are compounds which have a certain composition, etc.
- c. On the linguistic level, they are eight English letters plus a punctuation mark.
- d. On the semantic level, they constitute an important message: " I love you."

It can be readily seen that each of these four levels of description is complete and true on its own level. However, each level does not compete with or exclude other levels.

This kind of analogy serves to illustrate the relationship between science and religion: they are non-interacting levels of description of the same world. So science and religion will never contradict one another. Conflicts sometimes happen only because either science or religion misunderstands the type of description or explanation it provides, and tries to trespass into another level. For example, some Christian apologists insert God into current gaps of scientific explanation, invoking God to explain the scientifically inexplicable. This will only make God into a kind of God-of-the-gaps. As science advances and closes the gaps one by one, this God-of-the-gaps will be discredited.

I think the Complementarity of Levels Model has some genuine insights. Our world does admit of different levels of explanation which are non-competing. However, the problem is whether science and religion can be neatly assigned to two different levels of description.

One test case is the relationship between scientific and theological understanding of the human agent. For example, the scientist-theologian Arthur Peacocke holds that humankind can be understood completely by natural sciences and emerges out of an entirely material process of the universe. At the same time, he wants to affirm humankind's freedom and transcendence. "As one goes up the scale of biological evolution the open-ended character, unpredictability, and creativity of the process becomes more and more focused in the activity of the biological individual.... [There is an] increase in consciousness, culminating in human self-consciousness, the power of language, and rationality. ... [Finally we reach the] apogee in man's creativity and his sense of freedom."⁴³

It is always difficult to account for the freedom and transcendence of human beings in the seamless web of nature. Peacocke rejects any idea of immaterialist soul or self but argues that mental events are not reducible to physical events. Mind is a kind of emergent reality: "the language describing mental events is irreducible to that of cerebral physiological events ... The mental activity of 'consciousness' does not have to be predicated of some new entity, the 'mind,' but is an activity of matter which emerges when its units have evolved a particular kind of organized complexity.... I see no reason why Christian theology could not accept a body-mind identitist position that is qualified with respect to the 'anomaly' of mental events and to their nonreducibility to the physical ..., and that allows the autonomy of man as a free agent, as a 'self'."⁴⁴ What about the self, the "I" then? Drawing upon Donald MacKay's idea of levels of description, Peacocke believes that "I am not another cause alongside my body but simply my body in reasoned and intended action. Nevertheless in my experience of self as agent, I transcend any particular action or group of actions. For any one physical action, e.g., raising my arm, can express many different intentions

⁴³ Peacocke, *Intimations of Reality*, 67.

⁴⁴ *Ibid.*, 74-75.

in various contexts. In my actions I am a transcendent causal agent expressing myself in and through the physical structure of my body."⁴⁵

I have reservations about Peacocke's account of the human person. He argues that there is no self apart from the body: "I am not another cause alongside my body but simply my body in reasoned and intended action." Nevertheless it is still the case that in my actions I am a *transcendent causal agent* expressing myself in and through the physical structure of my body. I wonder whether these two statements are compatible, and blatant contradictions are not reconciled just because one says they belong to different levels of description. If I am just my body and my body is determined basically by natural laws, then my actions are also so determined. In what sense can my actions really transcend the underlying natural causal nexus? Perhaps Peacocke will argue that we can describe those actions in intentional terms which can't be reduced to physical terms. Even if it is true, all the work is done by the physical stuff, the intentional level is idle and epiphenomenal. We can also describe the movement of clouds or rains in irreducibly intentional terms, does it mean that there is anything real apart from the molecules and energy there?

It seems that the Complementarity of Levels Model is quite useful in many aspects but it cannot be the whole story. The major attraction of Independence Model is in fact the belief that science should subscribe to methodological naturalism, and the desire to avoid God-of-the-gaps at all costs. This is one of the most crucial and controversial issues in contemporary science-religion dialogue.

VI. Methodological Naturalism: Nature as a Seamless Web?

It is understandable that for many atheistic scientists, science and naturalism are basically the same thing. For example, Steven Weinberg

⁴⁵ Ibid., 75.

thinks that "the only way that any sort of science can proceed is to assume that there is no divine intervention and to see how are one can get with that assumption."⁴⁶ However, many Christian scientists, e.g., Peacocke, also commit to methodological naturalism and reject all suggestions of a God-of-the-gaps: "the seamless character of the web which has been spun on the loom of time; ... at no point does the modern natural scientist have to invoke any nonnatural cause to explain what he observes or infers about the past."⁴⁷

Peacocke rejects the God-of-the-gaps also because it is incompatible with his understanding of God as the Creator: "in saying that God is Creator, we do not affirm that he/she is any ordinary 'cause' in the physical nexus of the universe itself ... [He/she] cannot be the old 'God of the gaps.' *Ex hypothesi*, God's uniqueness and distinction from the world ensures that nothing in the world itself, such as might 'fill' one of its causal gaps, can ever be a totally satisfactory and true image of his all-embracing Reality. The doctrine of creation affirms that any particular event or entity would not happen, or would not *be* at all, were it not for the sustaining creative will and activity of God."⁴⁸

As a biologist who advocates theistic evolution, Peacocke is against all forms of creationism. He fully believes in the power of biology to solve all the puzzles: "the 'gaps' in the scientific account of this evolution of the multiplicity of living forms, that scientists yesterday thought they detected, continue to have the habit of being closed by the work of scientists today — and those of today will, no doubt, share the same fate tomorrow. ... For we see a world in process that is continuously capable, through its own inherent properties and natural character, of producing new living forms. In fact evolution is the process *par excellence* of the manifestation of emergence. This is the in-built

⁴⁶ Philip E. Johnson, *Reason in the Balance: The Case Against Naturalism in Science, Law and Education* (Downers Grove, Ill.: InterVarsity Press, 1995), 91-92.

⁴⁷ Peacocke, *Intimations of Reality*, 57.

⁴⁸ Ibid., 61.

creative potentiality of all-that-is, which we have now to see *as* God at work continuously creating in and through the stuff of the world he had endowed with those very potentialities."⁴⁹

However, I am not convinced by Peacocke's defense of methodological naturalism. He seems to put a basic faith in a seamless universe. This position is also subject to philosophical challenges: Is this position provable or rational? Is this an empirical fact or a priori assumption? For example, he asserts that "the 'gaps' in the scientific account of this evolution of the multiplicity of living forms... continue to have the habit of being closed by the work of scientists today." There is no doubt some truth in it but it is a one-sided over-statement. As scientific knowledge advances and old gaps of knowledge are filled, more often than not new gaps are revealed or created. Even if the gaps of our knowledge are closing, is it well-grounded to claim that all gaps, present and future, will be closed? Can we argue that since the 100m sprint record is broken time and time again, it will be broken indefinitely or the record can reach 0.1s someday? If naturalism is not presupposed, why can't we believe that there are genuine gaps in nature?

On the other hand, we wonder whether his interpretation of history is correct: "The 'God of the gaps'... has been stood on its head. The gaps are proving to be more and more resistant to conventional theory. It is as if they are fighting back, resisting closure, frustrating every attempt to bridge them, and widening in the process... We find ourselves wondering if the term 'God of the gaps' may be used not by atheists to make fun of theists but by theists to remind atheists of the facts."⁵⁰ This may be an exaggeration, and we need not, as theists, delight in "gaps" as if only they can show the glory of God. Yet one should be open to the possibility of genuine gaps and try to judge, tentatively, whether anything is a genuine gap. Anyway, if we argue from the pattern of our

⁴⁹ Ibid., 66.

⁵⁰ L.S. Betty and B. Cordell, "God and Modern Science: New Life for the Teleological Argument," *International Philosophical Quarterly* 27 (Dec. 1987): 433f.

past experiences, it is as justified to infer that some gaps will be closed as to infer that some new gaps will not. There is no strong reason to believe that at any definite time in the future, *all* gaps of knowledge will be closed.⁵¹

When Peacocke goes on to say that "those [gaps] of today will, no doubt, share the same fate tomorrow," he is making an assertion without providing an adequate basis for it. We just have no certain way to distinguish an apparent gap from a genuine gap *before* the gap is actually closed. Of course, Peacocke will reject the idea that scientific knowledge has a *genuine gap* because he believes that the world is continuously capable, through its own *inherent properties and natural character*, of producing all kinds of wonderful living forms, conscious beings, self-conscious persons and so on. However, why should we believe in this? As a matter of fact, current scientific accounts of the origin of life, the origin of the information in DNA, the emergence of complex organs (e.g., Behe's idea of irreducible complexity), and all kinds of mental events like feelings, actions, beliefs, etc. are, to say the least, radically incomplete. Of course, it is not easy to argue that these apparent gaps *are* genuine gaps. It is equally fallacious to conclude that because the above argument is fallacious, therefore these apparent gaps *are not* genuine gaps. Peacocke seems to be guided by an a priori commitment to the picture of nature as a seamless web. I don't believe that this is sufficiently warranted by current scientific achievements, impressive though they certainly are.

For example, Peacocke puts high hopes in the Brussels school, especially Ilya Prigogine, who studies the thermodynamics of open system. He shows that organized structures can come into being in open systems far from equilibrium when flux-force relationships are non-linear. These new ordered forms are called dissipative structures.⁵² Paul

⁵¹ Cf. Robert E. D. Clark, *The Christian Stake in Science* (Exeter: Paternoster, 1967), chaps. 4, 16.

⁵² Cf. Arthur Peacocke, *God and the New Biology* (London: Dent, 1986), 153ff.

Davies concludes that "What the study of self-organizing systems does demonstrate, however, is that the complex order of biological systems can very plausibly be attributed to a highly non-equilibrium physical process, as yet only dimly perceived, but without the need for a life-force or divine spark."⁵³ So in response to calculations of the improbability of the naturalistic origin of life, Peacocke argues that the "fallacy of such calculations lies in their ignoring the actual processes whereby complex self-reproducing (initially molecular and macromolecular) systems might self-organize themselves entirely consistent with currently known thermodynamics and chemical kinetics; in ignoring the role of selection of organizations of macromolecules that have favoured reproduction rates and once established, irreversibly channel the evolutionary process in one particular direction". He highly values H. A. Simon's theory of stratified stability: "Simon showed that complex systems will evolve from simple systems much more rapidly if there are stable intermediate forms than if there are not, and that the resulting complex forms will then be hierarchic in organization."⁵⁴

Peacocke seems to be rather uncritical of Prigogine's work. The assertion that new complex forms will *inevitably* emerge is unwarranted. It's true that the theory of stratified stability will enable the complex systems to evolve "much more rapidly" but the problem is: even with this help, is it rapid enough? Is it indeed possible that external energy input can agitate a stable structure to a higher state of stability? For example, how can mere assembly of amino acids be agitated into a *biologically functional* protein? Thaxton et al. have provided an analysis in chaps.7-9 of their book. To polymerize a functional protein from amino acids, three kinds of work have to be done: (1) chemical work; (2) thermal entropy work; (3) configurational entropy work—which is required because a functional protein has to have a *specific* configuration. After surveying various mechanisms, they find that the

⁵³ Paul Davies, *God and New Physics* (London: Dent, 1983), 68.

⁵⁴ Peacocke, *God and the New Biology*, 145.

chief difficulty is how to achieve "a high degree of information content, or specified complexity from the *undirected* flow of energy through a system... Either the work—especially the organizational work—was coupled to the flow of energy in some way not yet understood, or else it truly was a miracle."⁵⁵ They comment on the notion that an open system with energy and mass flow is a priori a sufficient explanation for the complexity of life: "We found it to be a reasonable explanation for doing the chemical and thermal entropy work, but clearly inadequate to account for the configurational entropy work of coding."⁵⁶ The key question is: can the flow of energy be directed by some coupling mechanism in such a way as to create new information?

Again we find this to be assertion instead of argument. In the evolution of life, though we can recognize some intermediate stable stages, there is yet no plausible mechanism to move a lower stage to a higher stage. In increasing the complexity, energy supply is not sufficient; we have to find a source of information. The hierarchy of stable stages at most can provide barbs preventing the backward flow of evolution; it can't guarantee the "inevitable" advance from one stage to another.

Even Paul Davies, an admirer of Prigogine's work, says that "it would be foolish to read too much into these results."⁵⁷ However, he still claims that: "it is not hard to envisage a prebiotic soup containing all the necessary ingredients of biology, driven by outside disturbance into interlocking self-organizing, self-reinforcing 'feedback' loops, thereby concentrating the order and fantastically increasing the odds in favor of crossing the life threshold." The interesting thing is that he later admits that: "it would be wrong to suppose that we have any understanding of the steps intermediate between the Miller-Urey experiment and full-

⁵⁵ C. B. Thaxton, W. L. Bradley, and R. L. Olsen, *The Mystery of Life's Origin* (New York: Philosophical Library, 1984), 164.

⁵⁶ *Ibid.*, 165.

⁵⁷ Davies, *God and New Physics*, 67.

blown replicating molecules. The origin of life remains a mystery."⁵⁸ The question again is: "If the latter comment is true, how can it be easy to envisage the former?" It gives the impression that the former "envisaging" is mere wishful thinking.

We should also note the criticism coming from Thaxton and others. Firstly they note that the dissipative structures discussed by Prigogine, e.g., hexagonal convection currents, are just orderly structures which lack specified complexity: "they fail to distinguish between order and complexity. The highly ordered movement of energy through a system as in convection or vortices suffers from the same shortcoming as the analogies to the static, periodic order of crystals. Regularity of order cannot serve to store the large amount of information required by living systems. A highly irregular, but specified, structure is required."⁵⁹ Secondly, the order produced within the system arises through constraints imposed in an implicit way at the system boundary. Thus the system order cannot exceed that of the environment. Thirdly this theory still lacks experimental evidence in applying to the synthesis of bio-molecules.

I am not saying that the theistic position *depends on* the above criticisms. Even if the theory of stratified stability could provide a sufficient account of the evolution of bio-molecules, it is not really inimical to the design argument or the theistic position—— this is a point Peacocke can agree. Peacocke quotes H. A. Simon's story of the two watchmakers which "illustrates the evolutionary advantages of the modularization that can occur in the assembly of the hierarchy."⁶⁰ The moral is that evolution proceeds as we manufacture a complex machine. In our mind, we divide the machine into stable modules. Then we manufacture the modules separately and fit them together finally. In this

⁵⁸ Ibid., 69.

⁵⁹ Thaxton, Bradley and Olsen, *The Mystery of Life's Origin*, 151f.

⁶⁰ Peacocke, *God and the New Biology*, 146.

way we can work at one module at a time and avoid being overwhelmed by the complexity of the object. Of course, we can do that because we have a general plan of the whole object in the very beginning. Then we think out what modules are needed and which parts are best grouped into one module. We don't just manufacture modules randomly and then fit them together. This surely won't produce anything interesting. Now Peacocke is suggesting that in nature's "manufacture" of a complex molecule or life, we have modules which can fit together nicely. There are also "provisions" in nature's laws that the complexity of a module can be increased hierarchically. If this were the case, we can't help wonder at the ingenious "creativity" of nature and the "design" of its laws to "manufacture" life. Is this sheer chance or can we attribute it to Intelligence? The laws could have been very different. Are the stable intermediate stages not like the steps which we cut on a steep slope so that we can climb up more easily? It seems that if we admit that biological complexity can't be thrown up by sheer chance, the complexity has to be relocated somewhere within nature. This again can be grist to the mill of the design argument.

Although theism does not *need* gaps, it does not follow that there are no gaps. Yes, invoking God would introduce a discontinuity but for what reason can we assert that there should be absolutely no discontinuity? "What they have instead is a fervent *desire, preference, passion* for a universal seamless causation. This desire is certainly no more scientific than the opposite desire to worship "God." Moreover, we have very good reasons for believing that DNA could not have evolved from "the accidental collocation of atoms... whereas there is no good reason *not* to believe that intelligence is behind the evolution of DNA."⁶¹ The point is that if we leave open the question of worldview, how can we know that the web of natural causes and effects must be wholly continuous instead of being designed? (These two need not be

⁶¹ Betty and Cordell, "God and Modern Science," 433.

mutually exclusive alternatives: this world can be designed in such a way that nature is wholly continuous.)

Others argue that because invoking a God would endanger the integrity of science, it has to be rejected as an answer to a scientific problem. Once we accept God's intervention, we would introduce a point of discontinuity in scientific inquiry. Then "the idea of nature as a 'seamless web' of causal connections, all of which are in principle discoverable and understandable, would have to be given up."⁶² It is dangerous because it would open the floodgate to obscurantist "explanations." It would suffocate scientific progress if every time we encounter an anomaly, we appeal to God's actions.

This methodological worry is understandable. However, believers in gaps do not suggest that every scientific anomaly should be explained by God. Most of the regular operations need not be. However, the origin of life, say, was actually a unique, unrepeatable event. Suppose we believe that this unique event is best explained by invoking Intelligence *on the basis of evidence*. It would not stop scientific inquiry of even this event. Since it's just a probable argument, its force depends on the status of the naturalistic alternative. We have to carry on research *as if* there's a scientific explanation. Only by persisting in this, the ultimate question of origin can be settled. However we can't confuse this methodological axiom with ontological assumption. Methodologically both theists and atheists should carry on research *as if* a scientific answer is possible. If the theist believes that it's actually impossible, he may hope to bear this out by the research: throwing up even more anomalies or evidences for discontinuity in nature. Of course if he is a theistic evolutionist, he should be even more diligently doing research because he can discover the beautiful laws designed by God which make life possible.

Even the staunch critic of methodological naturalism, Phillip Johnson, says, "I do not urge scientists to give up on any theory or

⁶² Ibid.

research agenda until they themselves are convinced that further efforts would be fruitless."⁶³ His concern is that the "key element in the cultural authority of the scientific naturalist is its power to set the standards by which theories are evaluated ... Darwinism became unchallengeable scientific orthodoxy not because the creative power of the mutation/selection mechanism was experimentally demonstrated, but because the scientific community adopted standards of evaluation that made something very much like Darwinism inevitable."⁶⁴ "It is not just that science will 'plug the gaps' in the future: the gaps are already plugged, by philosophy."⁶⁵

Furthermore, I think Peacocke needs to take more seriously the challenge of the intelligent design movement. Dembski has convincingly argued that the design explanation is not necessarily a fallacious argument from ignorance. In our ordinary life and many kinds of science like archaeology and forensic science, we regularly use design explanation and we provide reasons for it. If the reasons are good enough, the design explanation is acceptable and justified. So why can't we use the same pattern of reasoning to infer the designer of biological complexity? This is another controversial topic, and Dembski has a lot of critics. I have defended him against these objections elsewhere.⁶⁶

Peacocke may fall back on his theological objections to the God-of-the-gaps. However, I am not particularly impressed by his argument from God's uniqueness and distinction from the world.⁶⁷ That God must be a unique kind of cause doesn't entail that He can't be a cause of an event in the ordinary world in a way different from how He creates the universe. This argument against the God-of-the-gaps is not successful.

⁶³ Johnson, *Reason in the Balance*, 95.

⁶⁴ Ibid., 105.

⁶⁵ Ibid., 106.

⁶⁶ Kwan Kai-man, "Objections to William Dembski's Intelligent Design," *Jian Dao* 26 (July 2006): 129-68.

⁶⁷ Peacocke, *Intimations of Reality*, 61.

If it were successful, then it would generate problems about God's providence. Does it commit us to the denial of miracles? What about the Incarnation, a miracle *par excellence*? Will Peacocke say that the Incarnation is just another wonderful result of the unfolding of the in-built creative potentiality of the world endowed by God? If we are not prepared to say that, then we have already admitted a gap, a very big one indeed, in the causal nexus of the world. What makes it improbable that God will not leave a few more gaps elsewhere?

The above has been a complicated discussion. Let me sum up my viewpoints. I am not advocating a slavish appeal to the God-of-the-gaps, and it seems to me a premature invoking of God does more harm than good. So the caution against the God-of-the-gaps is a good strategy by and large. We trust that God has created an orderly world, and most empirical questions are in the end resolvable in an empirical way. However, the-God-of-absolutely-no-gaps is also another dogmatic postulation justified by neither theological nor scientific grounds. My suggestion is that we need to look at the concrete cases, examine all the relevant arguments, and then make the best judgment case by case.

VII. Conclusion: Towards Worldview Integration

The Independence Model does help us to see ways to preserve religion and science from coming into conflicts. However, we have also seen that rigid compartmentalization also has its dogmatic side. So I suggest it is at least worthwhile to explore whether some kind of worldview integration can be achieved, while keeping the differences of science and religion in view all the time. For example, the following strategies can be explored:

1. The general characteristics of the universe suggested by the natural sciences can be interpreted theologically, i.e., shown to be consonant with theological categories.
2. We can argue that some scientific findings about the general characteristics of the universe are *well* explained by theology,

i.e., they are mapped onto a theological worldview. In this way, science and theology can be shown to be congruent.

3. If enough scientific data accumulate in this direction, we may well argue that the scientific and theological worldviews exhibit a kind of consilience.
4. For some scientific data, it may be argued that they are *best* explained by theology. To the extent that this argument is plausible, science can provide confirmation or support of theology.
5. New developments in science can provide us a fresh understanding of some theological problems, e.g., the meaning of natural evil. They may even urge us to revise our theological schemes.
6. Theological beliefs may provide additional considerations to guide us to construct or evaluate scientific theories.

Some scholars who are sympathetic with the project of worldview integration have already tried most of the strategies above, and I think strategies (1) and (2) are widely accepted. Strategy (3) can at least be entertained hypothetically by many. Strategies (4) to (6) are more controversial. Certainly I cannot go into the controversies here. I just want to point out that the task of integration of faith and science is a very complicated and challenging task. Different models have their unique strengths and weaknesses. The task ahead is by no means easy, and we have no guarantees of success. However, I hope to have shown that this task is at least intellectually rewarding and life-enriching. But the detailed exploration of the task of integration has to be left for another time.

ABSTRACT

This paper explores the task of the integration of faith and learning by reflecting on different models of the science-religion dialogue. I provide a preliminary classification scheme of these models:

- (I) Science and religion are regarded as two radically different types of activity.
- (II) Science and religion are regarded as basically the same type of activity: Non-realism or realism.
- (III) Although science and religion are very different types of activity/practice, in other significant respects they are also similar.

I then explain on model (III), it can be further divided into the Independence Model (Scientific propositions and theological propositions belong to non-overlapping domains), and the Interaction Model (Scientific propositions and theological propositions belong to overlapping domains) — which can again be divided into the Conflict Model and the Integration Model.

In the rest of the paper I briefly look at the Conflict Model and then explain how the Independence Model can be used to neutralize the challenge of this model. However, I will also point out some limitations of the Independence Model. Towards the end, I suggest some kinds of Model of Positive Integration are the best way forward.

撮要

本文透過反思宗教與科學不同對話的模型，去探討信仰與學科整合之路。首先我把這些模型分為三大類：

- (I) 科學與宗教被視為兩種截然不同的活動。
- (II) 科學與宗教被視為基本上相同類型的活動：非實在論或實在論。
- (III) 雖然科學與宗教是非常不同的活動，但在某些重要方面也有相似之處。

我然後解釋第三種模型又可分為獨立模型（科學與神學的語句屬於互不重疊的領域），和互動模型（科學與神學的語句屬於部分重疊的領域）——這再可區分為衝突模型和整合模型。接着我在文章簡略評論衝突模型，和解釋獨立模型如何可用來消解衝突模型的挑戰。然而我也指出獨立模型的限制。最後，我建議正面整合的模型可能是最佳的出路。

另類的教會倫理如何成為公共倫理——《家暴條例》爭論的神學反省

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一 引言

由2008年底起，香港出現一個爭議性議題：《家庭暴力條例》修訂的理據和對社會的影響。反對條例修訂的主要理由是修訂中婚姻的定義變得含糊，究竟同性同居者是否有如等同婚姻的關係呢？支持條例修改的主要論點是不應漠視同性同居者需要保障，免受家居暴力傷害。在數月裏，報章刊登了不少正反方面的文章，在基督教圈子亦引起熱烈的討論。有人批評基督徒將基督教倫理價值強加於非基督教社會，亦有人批評基督徒反對條例修訂缺乏公共理性的根據，只有聖經的觀點，提出基督徒需要發展公共神學回應社會的議題。2009年6月，報章報道香港特區政府將會把條例修訂為《家庭及同居關係暴力條例》，一方面達到讓同性同居者在受到家居暴力威脅底下，得到法庭禁制令保障；另一方面亦傳遞一個信息：婚姻的定義是一男一女終身結合。這次修改主要澄清「同居關係並不等於婚姻關係」及同性同居關係只適用於《家庭及同居關係暴力條例》