

Religiosity/Spirituality, Inheritance and Environment: Some Buddhist Reflections

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Abstract

How come are human beings religious or spiritual? Current scientific results suggest both genetics and environment contribute to its formation, while, in this essay, I have further elaborated it to a dynamic network which is essential to the Religiosity/Spirituality of humankind. From a Buddhist perspective, I have then used several Buddhist terms or ideas to respond to some issue in this network distinctively, such as using interdependent arising to comment on the general understanding of formation of R/S, regarding karma seeds as the origin of R/S related genetic information, and the best environment for R/S as well as the unique human nature in the Buddhist view, the Buddhist attitude towards biotechnology, and which way should we consider and choose to enhance and develop human R/S, via education or biotechnology; I have also showed the necessity of a refined evaluation both of R/S in general and for Buddhism or other traditions. By this attempt, it is hoped that such distinctive Buddhist understandings will enrich the open-minded dialog between science and religion through, especially in regard to Religiosity / Spirituality.

Keywords: religiosity, spirituality, genetics, environment, Buddhism



I. Introduction

Mircea Eliade contends human beings are homo religious.¹ In other words, Religiosity/Spirituality (R/S) could be regarded as the nature of humankind. Current studies in behavioral genetics tend to support this kind of statement, at least partially. Although the relationship between R/S and genetics, or in a broader scope the network of R/S, inheritance and environment,² is complicated enough, recent researches do reach some degree of consensus that human beings' R/S is close related to factors such as inheritance, environment and their dynamic interaction. However, normally such studies have not take adequate consideration into which religious traditions are concerned, while most of them have actually confronted the case of Christianity, instead of religions in general or any particular religion. This essay will not present any substantial finding in the relation of Buddhist R/S and genetics, but will mainly offer some Buddhist understanding and reflections on this complex network, based on the introduction of the network of R/S, genetics and environment. Such unique perspective from a particular religious point of view is somewhat neglected, maybe due to its interdisciplinary status.

Why on earth is R/S worthy of discussion? It is first of all a unique cultural phenomenon in human society; therefore, becoming one of the important topics in humanity is fairly natural. Besides that, its benefits to

¹ According to Eliade, not only are the men of the primitive societies religious, but also modern nonreligious man. Eliade 1961, pp. 209-213.

² As generally used in behavioral genetics, inheritance in this essay only refers to its narrow sense, namely restricted in biology, but not extended to its broader usage, such as inheriting a culture, knowledge, or a real estate; environment in this essay will also be restricted mainly to its common usage in behavioral genetics, i.e. mainly refers to social environment but not natural environment.



humankind also count much. These benefits of R/S have been widely accepted, for instance, as reviewed by Button, religiosity is demonstrated as a protective factor for antisocial behavior, alcohol and drug abuse, it is also shown to be related to lower rates of premature mortality, and a positive factor for well-being.³ Focusing on the problem alcohol use, the authors have even further revealed that the greater social control in adolescence than in early adults may be crucial to protect them from having problem alcohol use.⁴

Activities such as yoga and meditation have attracted the attention of scientists for a long time, whose studies have proved a large of benefits for human health, both physical and mental. There are also researches which have shown religious (exclusive the already mentioned activities which the authors would prefer classify as spiritual) interventions, such as intercessory prayer, should be able to improve human health as well.⁵ Further more, others have even tried to distinguish the different effects of five types of prayer interventions,⁶ although they call them spiritual practices, unlike Coruh et al. treat them as religious.

Why not simply religiosity or spirituality, but their combination? Religiosity, due to its Latin origin, traditionally has the meaning of binding and connecting, therefore could be closer to those monotheisms than others, or more related to religious affiliations; whereas spirituality might transcend this limitation and purely refer to the pursuit of something transcendental. For Larry R. Churchill, an inclusive definition

³ Button and others 2011, pp. 201-210.

⁴ Ibid. 2010, pp. 1619-1624.

⁵ Coruh and others 2005, pp. 186-191.

⁶ Ruth 2009, pp. 825-846.



like Religiosity/Spirituality (R/S) would be more suitable for studies in humanities and social science concerning discussion about relevant medical issues.⁷ For this essay too, I believe an inclusive definition would be more appropriate not only for a Buddhist perspective, but also for R/S in general.

Evolutionary genetics has contributed to the discussion of R/S and genetics in its unique way, by proposing religiosity could be understood as an adaptation, a by-product, or exclusively a cultural product.⁸ Nevertheless, because involving it would make the network even more complex, also due to its possibly strong reductionistic interpretation, such as typically “nothing but” statement, which is, in principle, not a good candidate for a successful dialog between science and religion for it tends to eliminate the autonomy of human beings, this essay will mainly make use of some data from more descriptive studies, such as those based on twin studies in behavioral genetics and the alike.

Basic Buddhist conceptions and ideas will be briefly introduced during the comparison and discussion, but not separately, and they are mostly shared by both Theravada and Mahayana Buddhism. Using interdependent arising, the central concept in Buddhism, I seek to demonstrate how it may shed some light on this issue in general. In

⁷ “Humanities and social science research in this area needs to reflect current cultural usage in order to avoid misunderstanding, and to capture those experiences of deep significance to doctors and patients who would not consider themselves religious.” “For purposes of humanities and social science research I argue that an inclusive definition will serve us well. I use the acronym R/S to designate an inclusive concept for everything that might qualify as either religious or spiritual. It seems clear that people can be religious without being spiritual, and spiritual without being religious, and that often there are elements of both at play.” Churchill 2009, pp. 8-9.

⁸ Voland and Wulf 2009, p. 28.



regard of developing R/S, more detailed and relevant discussion will make use of karma to reflect genetics, and directly apply the Buddhist understanding of the best environment and human nature in terms of cultivating R/S. Concerning the contemporary keen interest of both scientists and ordinary people in biotechnology, namely using new technology in genetics to change our lives, this essay will also show the Buddhist response to imaginary religiosity enhanced by biotechnology. Finally, the need of a refined assessment of R/S in general as well as the evaluation for particular religious tradition such as Buddhism will be argued.

II. The Network of R/S, Genetics and Environment

1. Genetics, Environment → R/S

Whether R/S is influenced by genes or environment is now no research question in the field of behavioral genetics any more. According to studies of adult twins, religiousness is heritable in the .35 to .55 range, depending on how to evaluate the phenotype.⁹ They have gone further to investigate more details, such as how the change of genetic influence on R/S is related to age and whether there is significant sex differences in it. For instance, based on the finding that little to no genetic influence was found on adolescence religiosity, whereas the genetic as well as both shared and non-shared environmental influences on adult religiosity was demonstrated, Tanya M. M. Button et al. have examined the etiology of stability and change in religious values and religious attendance in males and females during adolescence and early adulthood.¹⁰ They reported the heritability of both religious value and attendance increased from

⁹ Koenig and others 2005, pp. 471-488.

¹⁰ Button and others 2011, pp. 201-210.



adolescence to early adulthood, and the active gene-environment correlation was regarded as the reason why heritability increased with age, namely as adults, people are less restricted by their parental influence, so that they can and will eventually choose and modify their environment corresponding to their relevant genetic background.

Notwithstanding it is fairly clear R/S is heritable, it is far from clear which genes are responsible for it. Dean Hamer boldly uses *The God Gene* as the name of his book, within which he tries to demonstrate the relationship between some variants of the VMAT2 (vesicular monoamine transporter 2) gene and spirituality.¹¹ Although he is more cautious in the book than the book title, like by stating “While this one gene might not make one a saint, a prophet, or a seer, it was enough to tip the spiritual scales and predispose one toward spirituality.”¹² his opinion is likely not widely accepted by the mainstream scientists. However, this will not change the truth that R/S is heritable, as well as influenced by the environment. It would be better to see R/S is related to a super complex and dynamic network, from genetic basis to the formation and function of the brain, and the delicate interaction between different levels (from genes, cells, to brain, and human thinking) of human life with the environment.

2. R/S and Personalities

R/S per se is a complicated character of human being, it might be helpful to employ other mature theory to describe and perceive it. In modern psychology, five big personality traits are used, which are Extraversion, Neuroticism, Openness to Experience, Agreeableness and

¹¹ Hamer 2004.

¹² Ibid., p. 88.



Conscientiousness. Notwithstanding the relationship between R/S and personality is also fairly complicated, some researchers have already demonstrated they are close related. Vassilis Saroglou has conducted a meta-analysis consisting of 71 samples (N=21,715) from nearly twenty countries, and came to the conclusion that individual differences in religiousness can be partially explained as a cultural adaptation of Agreeableness and Conscientiousness, i.e. two of those big five personality traits.¹³ Here the distinction between religiosity and spirituality emerges again, unlike religiosity is positively correlated to Agreeableness and Conscientiousness and negatively to Openness to Experience, spirituality is positively related to Openness to Experience, whereas low Openness to Experience also reflects fundamentalism. Can personalities then also be inherited? Similar to R/S, its answer is yes, while we should still firmly bear in mind that both genetics and environment play key roles here.¹⁴

3. The Network

As shown above, genetic and environmental contributions are evidently crucial to the formation of both R/S and personalities of human beings, while R/S and some particular personalities are close related to each other. Religious/spiritual activities in return may, in principle, also

¹³ See: Saroglou 2010, pp. 108-125. Agreeableness and Conscientiousness were reliable correlates of religion across most samples, different dimensions of religiousness (religiosity, spirituality, and fundamentalism), different measures of the five personality factors, and different cultural environments (United States, Europe, Canada, other parts of the world, non-Christian samples). These findings were not affected by publication bias, were not moderated by gender, and generalized across adolescents, young adults, and adults.” p.115; and “ they seem to predict religiousness rather than be influenced by it.” p. 108.

¹⁴ Jang, Livesley and Vernon 1996, pp. 577-591.



influence human genes, more precisely the regulation of gene expression;¹⁵ whereas its ability to affect the (mainly cultural) environment probably still lacks strong direct scientific evidence. Actually one important part in this network is not emphasized here in this essay, namely the role of human brain. Expressing in a simply way, in the phase of embryology, genetics directly affects future R/S by its guidance of neural system formation, while later only mainly “passively” influence R/S cooperated with the brain which already has some degree of autonomy. The function of neural system is then tightly related to and interacts with human mental activities, including R/S and personalities, stated mainly from a perspective of nonreductive physicalism by some scholars.¹⁶ Finally, the correlation between genetics and environment might be the one with the least evidence.

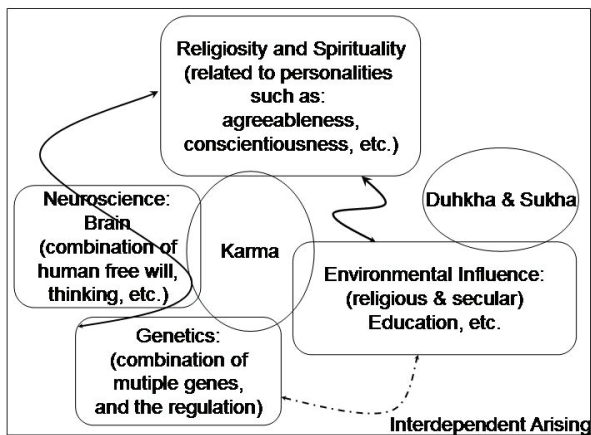


Figure The network of the formation of R/S and the interaction between R/S, Genetics, Environment and Neuroscience, and the Buddhist view point.

¹⁵ Dusek and others 2008, p.2576.

¹⁶ Murphy and Brown 2007; Brown, Malony and Murphy 1998; Jeeves and Brown 2009.



(1) From the view point of behavioral genetics, R/S is influenced both by genetics and environment(illustrated by real line and a bigger arrowhead), whereas the relationship between genetics and environment still receives too little attention from researchers(showed in broken line and smaller arrowheads). (2) New findings in neuroscience regarding R/S has also been revealed well recognized, such as the trial to explore the links between Zen and the human brain;¹⁷ it deserves another separate essay to discuss its role in the network similar to genetics, because it mainly works in a different level. Of course, when the discoveries in this field become adequate in the future, a more complete and complex network involving all of them should be constructed. (3) Other parts in the figure are meant to illustrate the unique Buddhist understanding in regard of discussing this network, such as interdependent arising, karma, the best environment with suffering and happiness, etc.

III. Buddhist Reflections on the Network

1. Interdependent Arising

Interdependent arising is one of the most essential doctrines in Buddhism, it describes that everything exists in relation and under different conditions with others. Although this theory can be theoretically applied to almost any circumstance, such as understanding those complicated pathways and feedbacks in biology, for concepts like R/S which are quite easily considered as either determined or merely a product of evolution, interdependent arising is able to offer a basic framework, with which those extreme understandings could be thereby more successfully avoided.

¹⁷ Austin 1998.



From the Buddhist point of view, strong reductive materialistic claims such as “R/S is nothing but (for instance: functions of genes or neurons)” are from the beginning wrong, as well as those views of radical dualism by unconditionally insisting or highlighting souls with the quality of R/S separately from human bodies, since they completely ignore those important relations and conditions without which there will hardly be anything like R/S to exist. A network in terms of R/S which gives credits simultaneously to genetics, environment, plus neuroscience, and their interaction, is therefore far more appropriate than others, although it is still not perfect, at least from a scientific point of view due to the lack of adequate evidence. However, this essay will still offer some Buddhist perspectives regarding those less proved parts of this network.

2. Karma, Seeds VS. Genetics, Thinking etc.

According to the current evidence in science introduced above, we can deem that genetics contributes to roughly half of the formation of R/S in human beings. Buddhism, while giving explanations to phenomenon, uses karma and seeds quite frequently. Karma basically can be understood as actions which are thought, said or done intentionally, eventually will lead to corresponding results. The potentiality and power of leading to results of karma are specifically designated as karma seeds in Yogacara (one Mahayana Buddhist school), which are “stored” in the eighth consciousness and will get “activated”, namely mature, whenever the necessary conditions are fulfilled. However, the leading power of karma, described as karma seeds in Mahayana Buddhism, in principle, is also well accepted in Theravada, only not used in this special form of expression.¹⁸

¹⁸ According to Yin Shun, both *avijñaptirūpa* of Sarvastivada and *cetanā bījavāda*



There is still hardly comprehensive investigation focusing on the relationship between genetics and karma, whereas I have been working on it currently, with some very preliminary results, in which I propose that gene (more precisely DNA) as one of the carriers of genetic information, per se cannot be regarded as karma, could however be seen as a materialized form of karma seeds, i.e. the leading power of karma, in some of the realms (for instance human beings, animals, and even some part of the natural world, mainly referring to plants) instead of all realms, while genetic information could somehow very likely be treated as a kind of karma seeds which represents and contains countless information of lives in samsara.¹⁹

Bearing this understanding in mind, karma and karma seeds have a very strong capability to respond to our topic. The R/S relevant genes or some complex dynamic pattern of gene expression, if such description is appropriate, are a materialized form of R/S relevant karmas, among which, in the Buddhist view, the strongest are those derived from intentional thinking with speeches and actions, i.e. those religious or spiritual promoting or related thinking, talking and practices. Put it in another way, those whose R/S genes are active, are obtaining their result and influenced by previous relevant karma with current encountering of proper conditions needed, behave religiously or spiritually diligent; whereas those who seem pretty secular do not have the chance to develop their R/S due to the lack of necessary conditions or the maturation of related karma. Secular beings do not lack of the potentiality of cultivation

of Sautrāntika are to explain the existence of karmic power; despite of their names, they already refer to the implications of seed. See: 印順 1978, 頁 146-156。

¹⁹ 傅曉，待出版。



R/S but the maturation of their relevant seeds, corresponding karma by intentional thinking and actions and the proper conditions and so forth.

Karma, as a more philosophical and less theological term than God, in some sense, offers a more convenient condition during any similar dialog between religion and science. We may do some experiment by replace the word God in such dialogs with the word karma, although not all of them make sense, but if yes, namely the replacement is possible and reasonable, it somehow modifies the tone of the statements, very possibly much less serious problems would be raised thereby. For instance, God created the world with imperfection, including suffering and sin, versus karma leads to the formation of this imperfect world. The former quite often induces disputes between scientists and theologians, whereas the latter per se is in principle not problematic to both sides.

Why is there such an obvious difference? From my point of view, because God is traditionally regarded as both the first cause and an omnipotent, perfect being; whereas karma serves mainly as a key concept to explain rules such as the causation concerning ethics which does not have to be either perfect or “inviolable” like God, it is only about explanations, has nothing to do with worship. In other words, karma itself is “neutral” instead of omnipotent, can however lead to everything including good, bad and neutral; meanwhile it emphasize individuals are responsible to all what happened and will happen to them, and themselves are responsible to their future destinies, but not necessarily related to God. This difference might be one of the main reasons why sometimes Buddhism seems to be more comfortable in the dialog with science. However, it is believed by many Christians that the God created this imperfect world intentionally in order to provide human beings a



better chance to develop R/S, which is somehow similar to the Buddhist understanding, our next topic.

3. The Best Environment for R/S with Both Duhkha and Suhka

Except interdependent arising and karma, Buddhism also directly introduces its distinctive understanding of the best environment for development of R/S, i.e. an environment with both duhkha and suhka. In the Buddhist world view, all the unawakened beings exist in the six realms with diverse degree of happiness and suffering, in Sanskrit suhka and duhkha. They are celestial realm, asura realm, human realm, animal realm, hungry ghost realm, and hell realm, whereas the human realm is regarded the most suitable place for enlightenment, because, simply stating, they have a living condition with happiness and suffering each in half.²⁰

In the above mentioned network, however, we can receive no hint about such requirement of environment; therefore I believe Buddhism can contribute some unique idea in terms of environment. The beings in lower realms than human beings are believed to live in a situation full of suffering and ignorance (such as the lowest three realm), for this reason, they can hardly have the intelligent, energy or even chance to develop their R/S. The beings in the other two realms live in a much more comfortable place than humankind, but they are believed to have little opportunity to cultivate their R/S, because they normally take their time to enjoy their lives and do not have that strong motivation to cultivate R/S like some human beings in our imperfect world. Nonetheless, there is

²⁰ 印順 1985，頁 52。



some exception, such as the celestial beings in the adytum of the tusita heaven, that is the place where the coming Buddha lives with his accompany, audience etc.. In our world, except those extreme cases who live in extremely good or bad situations in human realm, whose living condition might be regarded almost equivalent to the beings in other realms, ordinary human beings normally have some degree of happiness, satisfaction and their lives are not full of extreme sufferings which almost completely hinder the possibility of developing R/S; on the other hand, they are usually not fully satisfied with their lives while realizing their own or others' suffering and therefore might pursue high standard of happiness.

One question regarding genetics might be raised after having discussed the six realms, if only human beings, animals and plants have genes, eventually containing genetic information, how can the R/S relevant karma seeds (in this case those genetic information) be maintained in other realms. This is absolutely a question without satisfactory answer yet, especially from the scientific critical angle, whereas how all the seeds are stored in the eighth consciousness is also still a theory somehow like a myth in Buddhism. Here I, however, would like to highlight the importance that almost only the human realm is the best environment for R/S and humankind is the most privileged one to be religious/spiritual. In this sense, the importance of human genetics for R/S is still huge, especially when human beings equipped with free will are capable to make their own choices and decisions, to create their own karmas which in return interact with genetics, and eventually to determine their own destinies, including enlightenment.

Besides the privilege environment confronted by human beings here



mentioned and the related unique human nature below will be further discussed, what exact environment would be crucial for the development of R/S, in the Buddhist view? If possessing the potentiality of obtaining enlightenment is the first requirement for developing R/S, meeting Dharma should be the other most essential condition, namely the chance to hear correct Buddhist teaching, education, and eventually to be guided to go the right way. This is clearly a very different emphasis compared to the later will mentioned biotechnology, through which could we increase or enhance our R/S, the environment or genetics? From the Buddhist point of view, encountering Buddhism per se is extremely precious to get developed in R/S; whereas from the scientific point of view, manipulation of our R/S related genes might be a more efficient way to develop our R/S.

4. Human Nature and Personalities

Is it enough for human beings to be able to develop their R/S, if they are more sensitive to suffering and happiness than other beings? There are so many other beings (at least animals) which have better physical sensorial capabilities than humankind, so that the answer should be no, since humankind still seems to be more suitable to cultivate R/S, both from Buddhist and psychological point of view. Both the five personalities in psychology and the three characteristics of human mentioned in Buddhism are not descriptions of qualities of all human beings, but try to summarize the possible traits which are quite unique in human and partially can be treated as R/S relevant. I would further assume the uniqueness of human nature has to do with our human brain, but not extend it in this essay.

Although human nature is not a center concept in Buddhism, several



traits are introduced in Agama Sutra as quite unique in human beings in our world, these qualities are not only superior to the beings in the lower realms, but even superior to celestial beings, which, I deem, are somehow quite different to the personalities classified by western psychologists. They are intrepidity (being diligent and brave for their aims even face unprecedented difficulty), functions of human mind (memorizing, recognizing, thinking, predicting etc., eventually intelligence), and Brahma-carya (pure living, noble action).

The last one, so called noble action, ought to lead to development of R/S, it contains basic ethical requirements for human beings, but has much higher standards in practice. The first two characteristics are per se neutral, but while interacting with diverse intentions they may lead to different karma (wholesome, unwholesome, etc.). Exactly due to these two “neutral” traits, human beings are regarded most capable to conduct intentional actions by the power of intelligence, diligence and so on; actions with free will can eventually lead individuals to different realms including the best (nirvana) and the worst (hell) according to their intention, the nature of their action and karma, much more essential and efficient than the beings in other realms.

There must be some human genetic basis which makes human beings be able to be diligent and brave, memorize and think, and lead a noble life, whereas the animals simply cannot; meanwhile, there must be some fortune for those who can develop their R/S, namely the chance to encounter Buddhism, an educational environment. If we want to do some good to enhance the R/S of our offspring, which “shortcut” would we like to choose, providing a better environment for their education or manipulating their genes through biotechnology?



5. Biotechnology

As an important supplement to the network illustrated in this essay, discussion about R/S related biotechnology should be able to provide novel perspective on the potential trend in advance. Biotechnology, on the one hand, has shown its prominent contributions to this era; on the other hand, it has already been recognized, in some sense, as a myth.²¹ The conflict between biotechnology and religions is somewhat obvious, even though the major world religions now tend to be open-minded to it with some conservation. Current biotechnology has already brought some medical professionals distress which is rooted from these potential conflicts between new technologies and their personal beliefs.²² This vividly shows the inevitable practical obstacle while putting biotechnology and beliefs together in the real life. From my point of view, there are at least three main concerns in such conflicts, when does life begin, whether human beings/scientists have the right to act like the Designer/Creator which action was sacred, and whether the technology is safe enough (this is also a concern often raised by secular ethics).

The concern about embryo treatment will, in principle, always remain as one of the major Buddhist concerns on this issue. The third one although not necessarily is a religious concern, will nonetheless draw attention of Buddhist thinkers as well. Due to the difference, already discussed above, between God and karma, a mature biotechnology per se will be less problematic in the Buddhist than in the Christian view, however if we take the details more carefully into account, we should be more cautious to state that Buddhism feels OK about biotechnology.

²¹ Nelkin and Lindee 1995; Tadej 2009, pp. 797-806.

²² Geller and others 2009, pp. 31-40.



Before further discussion, it is worthy of mentioning some findings which are related to the so called God Gene VMAT2. Studies have found that VMAT2 is correlated to schizophrenia,²³ as well as to some other mental disorders. To make it more relevant to our topic, how about relating spirituality and genetics, especially genetic technology, eventually maybe something like “genospirituality”? Bruce G. Charlton has the audacity to discuss genetic engineering for spiritual and religious enhancement, and uses this new term.²⁴ Yes, this is indeed an interesting and imaginative vision. Religion and science has long been wrongly regarded as innate enemies, albeit this view has been slowly changed, an invention like genospirituality is nevertheless absolutely fancy.

How should Buddhism respond to biotechnology, even genospirituality? It would be fairly helpful first introduce the Buddhist attitude towards theurgy (supernatural power). Albeit supernatural power is regarded as a fact which can and indeed exists in Buddhism, in Buddhist practice, Buddhist attitude towards it is basically conservative. For instance, Buddha himself also did not encourage his disciples to use it, and several of his disciples who were quite powerful and good at using it eventually did not die in their beds.²⁵ The reasons are multiple, because it might produce irrational personal worship and possibly ignoring following the right paths toward enlightenment; because it is only upaya (skillful means) but not the way to the ultimate reality or nirvana; because most of them who possess supernatural power normally still lack of profound

²³ Gutiérrez and others 2007, pp.502-507; Talkowski and others 2008, pp. 747-758.

²⁴ Charlton 2008, pp. 825-828.

²⁵ The example of Maudgalyāyana, whose supernatural power was considered to be the most accomplished among the disciples of Buddha, can be seen in: 《大正藏》，第2冊，頁639。



investigation and understanding of the related causation, therefore their usage of the power might not be the best and easiest way as they deem and the upcoming changes of the reality, especially in the future, might be out of their primary expectation or prediction; because supernatural power does not ensure any long term benefit although it might seem to be beneficial temporarily, and so on.

As kind of novel and powerful means, biotechnology in some sense already becomes a myth quite similar to theurgy. However, according to the above notions of the Buddhist attitude towards supernatural power, the capability of biotechnology, while being regarded only as skillful means, which does not refer to any ultimate perfection, should not be overemphasized or even worshipped at all. It might be temporarily beneficial to human beings, but our relevant knowledge is still extremely limited, far less than the obsession or the ambition of some people. Concerning genospirituality, based on the findings mentioned above, are we sure that the modified human beings will all successfully become more religious or spiritual but not become mad or so (such as schizophrenia or other mental problems)?

6. R/S in General or in any Particular Religion

Having discussed the concrete Buddhist reflections on this issue, it is worthy of examining the assessment of R/S in general. According to Daniel E. Hall et al., most current studies measure religiousness in general, somehow have ignored the diversity among different religious traditions, therefore could better be regarded as reverse-scored measures of secularism.²⁶ In my view, they have correctly pointed out the recent

²⁶ Koenig and Meador 2008, pp. 368-373.



problem in this field. To extend it further, I believe not only the uniqueness of different religions was ignored; the trials to evaluate religiousness in general were also not that successful, namely the commonness among dissimilar religions was not effectively represented either. The seven religiosity factors identified by Kenneth S. Kendler et al., for instance, are General Religiosity, Social Religiosity, Involved God, Forgiveness, God as Judge, Unvengefulness, and Thankfulness.²⁷ Can these simply be used to other religions, such as Buddhism, or they are only applicable to those monotheisms?

Although not directly related to religiosity, other seven characteristics suggested for religion are: Transcendence, Ultimate relatedness (feeling of attachment, connectedness, dependence, and obligation as well as a feeling of ultimate purpose and meaning both for individuals and for societies or the whole world), Mysticism, Myth, Morality, Rite, and Community.²⁸ Less directly and obviously related to God and God as Judge, a set of factors of R/S derived from this with further modification might be a better way to evaluate R/S in general as well as other usages. Concerning uniqueness of any particular religion, attempts have also been made. Measuring religiosity from Islamic perspective was already considered, even by a scholar of Business major.²⁹ Similar attention was also paid by Buddhist scholars, although their main concern was the localization of the concept of afterlife.³⁰

Albeit the distinctions between religiosity and spirituality have not reached complete consensus, the subtle differences between those world

²⁷ Kendler and others 2003, pp. 496-503.

²⁸ Voland and Schiefenhövel 2009, p. 27.

²⁹ Khraim 2010, pp. 166-179.

³⁰ 蔡明昌、歐慧敏 2008，頁 7-88。



religions are obvious. Normally when discussing believers of western religions i.e. the monotheisms scholars might prefer the word religiosity, whereas for believers of eastern religions as well as practitioners (such as yoga, meditation, prayer etc.) of any origin but not believers in any religions they might feel more proper to use the word spirituality. In any case, the need of more precise assessment for both R/S in general and R/S in any particular traditions is clear and urgent, for both of them will contribute to a clearer, more precise and deeper understanding of R/S.

IV. Conclusion

Based on the findings related to R/S, it becomes clear that R/S is neither determined by any gene nor just a product completely formed by the environment or the human cultures (including secular and religious influences); it is rather a dynamic process with interactions with each other. The “weakest” part of this network might be the correlations between genes and environment (more specifically culture, education etc.), and it might be difficult to conduct such research. However, any findings about it would be fairly valuable, especially in the balance of current almost mythologized biotechnology.

The Buddhist idea of interdependent arising may be able to be applied to facilitate most of the scientific theories, it is however especially valuable to correct any extreme understanding or assertion such as determinism. The karmic theory, on the other hand, serves quite concrete role in the dialog between Buddhism and Science; in terms of R/S, the R/S related genes might be regarded as a materialized form of R/S relevant karmas which roughly equate to those religious or spiritual related or promoting thinking, speeches and practices. Meanwhile karma as a simple explanatory tool instead of any worship function, it might



have fewer burdens than the theological term God in similar dialog between religion and science.

Unlike the scientific researches which normally divide environment to shared and non-shared for their research purpose, Buddhism offers another kind of perspective that the best environment for developing R/S should be the one with both happiness and suffering. Furthermore, Buddhism regards encountering Dharma as an extremely precious fortune to develop our R/S, i.e. living in an environment where people can receive education and training in Buddhist cultivation. Regarding human nature as well, Buddhism proposed three unique and superior traits of human beings in our world, in contrast to the particular personalities classified by psychologist, which all are considered to be related to R/S. Due to the possible keen interest of many people to manipulate, modify, in the end to improve human life by biotechnology, I have also discussed the Buddhist attitude towards genetic engineering, even on the novel idea of genospirituality; it is believed that Buddhism is both open and very conservative and cautious about it. Compared to education as an important environmental influence, biotechnology should be seen as the last way to choose in order to enhance human R/S. Finally, this essay has pointed out the need of some finer assessment both in R/S in general and for Buddhist or other particular traditions.



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宗教性／靈性、遺傳與環境：佛學的反思

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摘要

人類為何有宗教性／靈性呢？當代科學研究提示遺傳和環境因素都在人類的宗教性／靈性的形成過程中起到了重要作用，筆者在本文中提出了一個對於人類宗教性／靈性非常關鍵的動態網狀系統。隨後，筆者用數個佛學概念、理念從佛學的角度回應了對這個網狀系統的獨特理解，例如用緣起來回應對宗教性／靈性形成的基本理解、將業種子視為宗教性／靈性相關的遺傳信息的根源、佛學視角下最利於培養宗教性／靈性的環境及人類的特性、佛學對待生物技術的態度，以及討論若希望促進人類宗教性／靈性的發展，是應該選擇教育還是生物技術的途徑等等；最後，還提出了學界有必要分別針對一般意義上的宗教和不同宗教傳統（如佛教）的宗教性／靈性進行更完善的界定。藉此，希望這樣一個獨特的佛學視角的理解能夠豐富科學與宗教間的開放對話，尤其是在有關宗教性／靈性這個論題上。

關鍵詞：宗教性、靈性、遺傳、環境、佛學

