

Hisaki Hashi (Hg.)
Denkdisziplinen von Ost und West

Herausgegeben von
Hans Rainer Sepp

Wissenschaftlicher Beirat

Suzi Adams · Adelaide | Babette Babich · New York | Kimberly Baltzer-Jaray ·
Waterloo, Ontario | Damir Barbarić · Zagreb | Marcus Brainard · London | Martin
Cajthaml · Olomouc | Mauro Carbone · Lyon | Chan Fai Cheung · Hong Kong |
Cristian Ciocan · București | Ion Copoeru · Cluj-Napoca | Renato Cristin · Trieste
| Riccardo Dottori · Roma | Eddo Evink · Groningen | Matthias Flatscher · Wien |
Dimitri Ginev · Sofia | Jean-Christophe Goddard · Toulouse | Andrzej Gniazdowski
· Warszawa | Ludger Hagedorn · Wien | Terri J. Hennings · Freiburg | Seongha
Hong · Jeollabukdo | Edmundo Johnson · Santiago de Chile | René Kaufmann ·
Dresden | Vakhtang Kebuladze · Kyjiw | Dean Komel · Ljubljana | Pavlos Kontos ·
Patras | Kwok-ying Lau · Hong Kong | Mette Lebeck · Maynooth | Nam-In Lee ·
Seoul | Monika Małek · Wrocław | Balázs Mezei · Budapest | Viktor Molchanov ·
Moskwa | Liangkang Ni · Guangzhou | Cathrin Nielsen · Frankfurt am Main |
Ashraf Noor · Jerusalem | Karel Novotný · Praha | Luis Román Rabanaque · Buenos
Aires | Gian Maria Raimondi · Pisa | Rosemary Rizo-Patrón de Lerner · Lima |
Kiyoshi Sakai · Tokyo | Javier San Martín · Madrid | Alexander Schnell · Paris |
Marcia Schuback · Stockholm | Agustín Serrano de Haro · Madrid | Tatiana
Shchytsova · Vilnius | Olga Shparaga · Minsk | Michael Staudigl · Wien | Georg
Stenger · Wien | Silvia Stoller · Wien | Ananta Sukla · Cuttack | Toru Tani · Kyoto |
Detlef Thiel · Wiesbaden | Lubica Ucnik · Perth | Pol Vandavelde · Milwaukee |
Chung-chi Yu · Kaohsiung | Antonio Zirion · México City – Morelia.

Die *libri nigri* werden am Mitteleuropäischen Institut für Philosophie,
Fakultät für Humanwissenschaften der Karls-Universität Prag herausgegeben.
www.sif-praha.cz

Denkdisziplinen von Ost und West

Interdisziplinäre Philosophie
in einer globalen Welt

Herausgegeben von Hisaki Hashi

Verlag Traugott Bautz GmbH

Bibliografische Information der Deutschen Nationalbibliothek

Die deutsche Bibliothek verzeichnet diese Publikation
in der Deutschen Nationalbibliografie.
Detaillierte bibliografische Daten sind im Internet abrufbar über
<http://dnb.ddb.de>



**Verein für Komparative Philosophie
und Interdisziplinäre Bildung (KoPhil)**

<http://www.kophil-interdis.at>

Der vorliegende Band entstand im Rahmen der Forschungsarbeit
des Vereins für Komparative Philosophie und Interdisziplinäre Bildung (*KoPhil*).
Der Verein wird von HASHI Hisaki geleitet und von einem internationalen Beirat unterstützt.

Jorinde EBERT (Kunstgeschichte/Wien), ERIGUCHI Yoshiharu (Physik/Tokyo), Johann FIGL (Theologie/ Wien), Peter FLEISSNER (Informatik/Wien), Karen GLOY (Philosophie/Luzern), Wolfgang GREISENEGGER (Theaterwissenschaft/Wien), INOUE Katsuhito (Philosophie/Osaka), Hans-Dieter KLEIN (Philosophie/Wien), Konstantin KHROUTSKI (Medizin/Novgorod), Herta NAGL-DOCEKAL (Philosophie/Wien), Ludwig NAGL (Philosophie/Wien), Jozef NIŹNIK (Philosophie/Warszawa), Erhard OESER (Wissenschaftstheorie/Wien), OKADA Yasuhiro (Medizin/Kobe), Herbert PIETSCHMANN (Physik/Wien), Peter REVERS (Musikwissenschaft/Graz), Hans Rainer SEPP (Philosophie/Prag), SHIBA Haruhide (Komparative Philosophie/Tokyo), SUEKI Fumihiko (Buddhistische Philosophie/Kyoto), Karl SIGMUND (Mathematik/Wien), Kurt SMOLAK (Klassische Philologie/Wien), YORIZUMI Mitsuko (Ethik/Tokyo)

Verlag Traugott Bautz GmbH
D-99734 Nordhausen 2015

Gedruckt auf säurefreiem, alterungsbeständigem Papier
Alle Rechte vorbehalten
Printed in Germany

ISBN 978-3-95948-047-5

Inhalt

Vorrede – Einleitung	7
----------------------------	---

TEIL I

Philosophie für Medizin, Informatik und Computer Science

OKADA Yasuhiro (Medicine, Bioethics / University of Kobe) The Significance of “Science and Religion” by NISHITANI Keiji in Contemporary Society – On the Crucial Issues of Bio-Ethics	13
Peter FLEISSNER (Informatik, Computer Science / Technische Universität Wien) Soziales Leben in virtuellen Welten?	36

TEIL II

Erkenntnistheorie aus der Naturwissenschaft – Physik und Philosophie

Herbert PIETSCHMANN (Theoretische Physik / Universität Wien) Drei Grenzen der Naturwissenschaften – Kritische Philosophie der Naturwissenschaft	53
HASHI Hisaki (Interdisciplinary Philosophy / University of Vienna) The Field of ‘Between’ – A Concept of Truth for Interdisciplinary Cosmology	72

TEIL III

Phänomenologische Ontologie – Zum Ursprung des Seins

Helmuth VETTER (Phänomenologie / Universität Wien) Zum Wahrheitsbegriff bei Heidegger	89
--	----

TEIL IV

Komparative Philosophie der Gegenwart

Józef NIŻNIK (Philosophy and Social Philosophy / Polish Academy of Sciences, Warsaw) Philosophy and the Dynamics of Symbolic Universe in the Globalized World	107
---	-----

Werner GABRIEL (Philosophie / Universität Wien)	
Versagt die Philosophie in unserer globalisierten Welt?	
Rezension zu „Kyoto-Schule – Zen – Heidegger	
Komparative Philosophie zur globalen Welt“	120
KOSAKA Kunitsugu	
(Komparative Philosophie / Nihon Universität, Tokyo)	
Nishida Kitarō und Wang Yangming	
– Ein Prototypus der Anschauung der Wirklichkeit in Ostasien	123
Hans-Dieter KLEIN (Philosophie / Universität Wien)	
Über die „Dynamik von Sein und Nichts“	
Rezension zu „Die Dynamik von Sein und Nichts.	
Dimensionen der vergleichenden Philosophie“	159
HASHI Hisaki (Comparative Philosophy / University of Vienna)	
Comparative Philosophy as the fundamental Method	
of Interdisciplinary Research	164
Erich HAMBERGER	
(Kommunikationswissenschaft / Universität Salzburg)	
Die aktuelle Bedeutung von Ferdinand Ebner	
für die Komparative Philosophie	
in einer transkulturell werdenden Welt	190

TEIL V

An den Tangenten der Cognitive Science und Philosophie

HASHI Hisaki (Philosophie / Universität Wien)	
Einige Bemerkungen zum „Field of `Between“	
Das „Feld des `Zwischen“	
als Leitidee zum interdisziplinären Dialog	239
SHIBA Haruhide	
(Buddhist Philosophy, Comparative Philosophy /	
Taishō University, Tokyo)	
Cognitive Science von Varela und	
psycho-physische Philosophie im Buddhismus	
Zur Phänomenologie der Erfahrungen	246
HASHI Hisaki (Interdisziplinäre Philosophie / Universität Wien)	
Zur Bedeutung der „Willensfreiheit“	
– An den Grenzen der Cognitive Science und Philosophie	284
Affiliation of the Authors	308

Vorrede – Einleitung

Herausgabe der „Schriften in Buchform“ nach der IT-Revolution

Dieses Werk entsteht in einer beunruhigenden Phase in der Geschichte der Kulturen und Universitäten. Die Geistesströmungen der globalen Welt tendieren dazu, dass immer weniger Leute zu Schriften in Buchform greifen, da es ihnen zumeist an „Zeit und Ruhe“ fehlt. Häufig zugegriffen wird nur auf „Informationen“, heruntergeladen aus dem Internet, womöglich in einer Kurzfassung, in der wichtige Inhalte oft auf der Strecke bleiben. Manche Studierende der Kulturwissenschaften und der Philosophie neigen dazu, sich mit „PowerPoint Präsentationsfolien“ zu begnügen, die meist nur einen groben Überblick vermitteln. Zum Erwecken des Interesses des Publikums unmittelbar vor Ort kann eine gut gemachte Präsentation höchst wirksam sein; beim Herunterladen der Folie aus dem Internet wollen manche Studenten gleich Kommentare im Blog schreiben. Allerdings sind Darstellungen auf einer Folie mit Graphiken in simplifizierter Form oder Stichwörter oft nur „Schlagzeilen“, „eye catchers“, die nicht mehr als Aufmerksamkeit erregen wollen. Bei der Umwandlung eines Konzeptes in graphische Darstellung besteht die Gefahr, dass die Gedanken, die dahinterstehen, eine Art der „Deformation“ erleiden. Das bewusste Hervorheben oder Weglassen von wichtigen oder auch unwichtigen Aussagen ist unvermeidlich. Dadurch erscheinen die Konzepte fragmentiert und können zu übereilten Reaktionen im Auditorium Anlass geben. – Der „Zeitgeist“ unserer schnelllebigen Gesellschaft verlangt nach einer plakativen, medienwirksamen Aufbereitung von Inhalten; in den „Schriften in Buchform“ soll dagegen eine bleibende, unzerstörbare Wahrheit ihren Platz finden.

Unterzieht man die gegenwärtige Gesellschaft einer eingehenden Analyse, so scheint es manchmal, dass die rasanten Fortschritte digitaler Medien die ursprüngliche Humanität und Kreativität der Menschen, ihre Fähigkeit, eigenständig zu denken und zu handeln, negativ beeinflusst haben. Der Grund dafür liegt darin, dass viele Leute ihre digitalen Geräte oft nur zum schnellen Sammeln und Senden von Informationen nutzen, ohne sich Zeit zum Überlegen, Reflektieren, zum einsichtigen Denken und Handeln zu nehmen. Ohne eigene Interpretation der Quellen, ohne eigenständige Beschäftigung und Aufarbeitung des Stoffs bleibt jegliche Information nur ein flüchtiges Zeichen, welches in Sekunden verschwindet und kaum jemals wieder zur weiteren Verarbeitung, zum Erzielen neuer Erkenntnisse dienen kann.

„Denkdisziplinen“ im Plural

Demgegenüber stellt sich die vorliegende Schrift in einer stabilen „Buchform“ dar: Das Buch kann wiederholt gelesen und eingehend reflektiert werden. Der Leser kann nach längerer Pause erneut danach greifen und im *topos* der „geistigen Begegnung von Autor und Leser“ zur Auseinandersetzung mit dem Gelesenen und zu eigenständigem Denken angeregt werden.

„Denkdisziplinen“ im Plural übermitteln einerseits eine „Konfrontation mit der philosophischen Thematik im Horizont der verschiedenen Wissenschaftsdisziplinen“, und zeigen einen interdisziplinären Zugang zur Philosophie auf. Auf der anderen Seite übermitteln sie eine Reihe philosophischer Konfrontationen zum Standort von Autoren aus unterschiedlichen Kulturen. Die komparative Denkmethode hat einen bedeutenden Anteil an jedem einzelnen Beitrag. Autoren aus unterschiedlichen Disziplinen versammeln sich auf dieser Agora und liefern Originalbeiträge zur philosophischen Thematik. Dabei gerät jeder Einzelne in den *topos* des „*Between*“ – im Sinne einer Zone, die nicht vom „*framework*“-Denken einer starren Dogmenlehre eingeengt wird. Dieses „*Zwischen/Between*“ ist weder als zwiespältige Grauzone noch als Chaos willkürlicher Gedankensprünge zu sehen, sondern als durchaus lebendiges, aktuelles Feld der Konfrontation zum Erlangen einer neuen Erkenntnis.

Die Autoren, die auf dieser Agora sprechen, sind anerkannte Wissenschaftler mit philosophischen Grundkenntnissen oder renommierte Philosophen mit profunden Kenntnissen in Einzelwissenschaften; einige stehen im Zenith ihres Wirkens. Das vorliegende Sammelwerk ist Herrn o. Univ.-Prof. Dr. Hans-Dieter KLEIN als *Festgabe* in dieser Form gewidmet – als Zeichen unserer tiefen Dankbarkeit für seine langjährige Lehre und Forschung für die Philosophie an der Universität Wien. – Es lässt sich im Allgemeinen betrachten: Eine glanzvolle geschichtliche Tradition geht mit ihren geistigen Erben kontinuierlich zu einer Vollendung. Die nachfolgende Generation strebt nach anderen Zielen, ist aber noch auf der Suche nach ihrem Kernpunkt, von dem aus eine neue Geisteshaltung folgerichtig entwickelt und in der eigenen Geschichtlichkeit stabilisiert werden kann.

Was zum Ewigen bleibt

In den Übergängen, in denen Werte und Traditionen der Gesellschaft wie zwischenmenschliche Kommunikation, Vertrauen, Zusammenhalten, Aufrichtigkeit einen Rückgang zu erleiden scheinen, soll dieses Werk das Feuer der

Philosophie entzünden, einen konfrontativen Geist des *polemos* als „Vater aller Dinge“ (Herakleitos). Zugleich widmet sich das Werk dem Wesentlichen des *dào*, des Ursprungs aller Ursprünge, der im Analogon der „Mutter aller Dinge“ und auch mit Merkmalen des „Wassers“ gekennzeichnet wird: Das höchste Gut ist wie das Wasser. Wasser geht in die Tiefe, wo niemand gerne bleibt (Laozi, *daodejing*). Wasser ist enorm flexibel. Weil es formlos ist, kann es sich jedem Gefäß anpassen. Wasser wandelt sich dynamisch – einmal in Regen, einmal in Schnee, in Eis, in Dampf und Wolke – aber das Wesen des „Wassers“ bleibt unverändert; es fließt überall, gemäß der ursprünglichen Ordnung der Natur. Die Philosophie erstrebt eine solche tiefgründige Wahrheit, die ungebunden an jegliche Modeerscheinung und unabhängig von peripheren Phänomenen der Gesellschaft als Unwiderlegbares im Ewigen bestehen bleibt.

Mit dieser „Compassion“ bringen wir, die Autoren das vorliegende Sammelwerk auf die Welt. Das „Feuer“ der *philosophia* kann nicht gelöscht werden – das „Wasser“ des ewigen *dào* fließt ewig und kommt niemals zum Stillstand.

Wien, im März 2014
Univ.-Doz. Dr. H. Hashi

TEIL I

Philosophie für Medizin, Informatik und Computer Science

The Significance of “Science and Religion” by NISHITANI Keiji in Contemporary Society – On the Crucial Issues of Bio-Ethics

OKADA Yasuhiro (Medicine, Bioethics / University of Kobe)

Preface

It is characteristic of the works of NISHITANI Keiji¹ (1900-1990) that the problematics of science and religion can always be found in the background of his discourse.² When NISHITANI speaks of the category of the *nihilum*, the personhood or non-personhood of God, Zen Buddhism, and the position of *emptiness* and so forth, this tendency is basic in his philosophy. Addressing the problem of nihilism, NISHITANI describes the destruction of a well-ordered world in

1 Japanese proper names are presented in the original order: last name, first name.

2 NISHITANI wrote for example in “What is Religion?” (Tokyo 1961, sōbun-sha) at the end of chapter 1: “I think that we can consider the problem of what is God in a wider horizon in which we overcome the dualistic difference of a personified One God faith and a unity of Absolute Truth without any personified characteristic. When we achieve this horizon, we can also consider the problem of what the relation between religions and sciences is. (...)”. In “What is Religion?”, chapter 2 (“personified and un-personified characteristic of religions”) NISHITANI noted: “Clarifying the relation between religion and natural science is one of the most fundamental issues of our time.” At the end of this chapter NISHITANI summarized: “The problem of the relation between religion and natural sciences must be reviewed from the perspective where being and the *nihilum* stand in a relation and in a communicative interaction. This viewpoint begins to be realized when the concept of *mu* (unlimited dimension of truth) enters the problem.” In the chapter “Nihilism and śūnyatā” NISHITANI stated: “Our most basic problem is the relation between religion and science.” Proceeding from this question, he explained nihilism and the position of śūnyatā. In other writings, “The Position of Zen,” NISHITANI treated the subject “Natural Science and Zen.” On the other hand, he viewed the “relation between religion and natural science” as the most crucial and fundamental problematic of our time. (See “About Religious Practice” and various other lectures by NISHITANI).

traditional western cultures, which was based on the relation between God, humans, and natural world. He stresses that we must reflect on the fundamental causality of human existence, which has been thrown into question by the positions of atheism and mechanistic views of the natural world since the establishment of the modern sciences. Focusing on these aspects, NISHITANI discusses whether religions still have any role at all to play in comprehending human nature in the contemporary world.

Of course it is clear that the influence of modern natural sciences on religions, cultures, and societies is enormous. Particularly, advances in the fields of biology and biotechnology in the last fifty years have forced us to recognize that this kind of progress brings with it critical issues and decisions of the utmost importance: the basic ground of human existence is fundamentally threatened. It is precisely to this phenomenon that NISHITANI called our attention. Artificial insemination and human cloning, tissue engineering and organ transplantation, stem cells and regenerative medicine, genetic engineering, etc.: all of these advances were made possible by biological science accompanied by the top level of contemporary science and technology. They partly satisfy the longing for human longevity and provide us with enormous profits. Yet at the same time, they illustrate the radical shift of human nature toward the mechanical unities of the world – precisely in the sense of the loss of human nature that was stressed by NISHITANI: where human existence is present as a *mechanical machine*. It also must be pointed out that the materialization/mechanization of life and nature has been progressing radically ever since the Cartesian separation of mind and matter became an established view.

With these issues in mind, I will first examine why NISHITANI discussed the relation between sciences and religions in his work “What is Religion?” I will then address some phenomena that appear as crucial problems in contemporary natural sciences. I wish to explain that science cannot fundamentally solve these critical problems since they are connected to the basic character of natural science itself. On the other hand, I will examine whether and to what extent NISHITANI’s thought is applicable for solving the current problems of contemporary biology and biomedicine, regarding and reconstructing the basic reasoning of the sciences from the perspective of existential philosophy. Finally, I will consider the significance of NISHITANI’s philosophy in our contemporary world.

I. Why did NISHITANI’s treat the relation between science and religion in “What is Religion?”

1. NISHITANI’s basic thoughts on religion

NISHITANI holds that the relation between science and religion is the most fundamental problem of human beings in our time.³ Since contemporary thought is centered on the natural sciences where teleological views of the previous world are omitted, the sciences need religion most urgently.

In the preface to “What is Religion?” NISHITANI states that he does *not* discuss the general concept of what a religion is with various quotations and examples. (In religious science of the time this was quite a common approach.) His approach is not based on a particular religious faith or dogma. He stresses that he reflects on various problems in the field between previous religions and non-religion in an approach that traces the relations between both views. NISHITANI says his intention is to consider the source of reality and the fundamental ground of human existence, which we can illuminate by clarifying the hidden problematics of human history. The question, “What is Religion?” reflects this background.

If we ask, “What is the purpose of a religion?”, we should not expect to gain anything useful and profitable from it. A religion is a field of reflections on the existential problems of our lives. A religion lets us grasp a fundamental source of our lives that should not be *utilized* in any way. A religion is bound to two aspects. First, it always exists for each person and each self. Second, it accompanies the questions of: the purpose we have as existing selves in human life, where we came from into the world, and where we will go after the end of our lives. These questions arise in our consciousness as postulates as to why we need a religion in human life⁴. This way of questioning leads us to the *topos* in which everything

3 See note 1. Ōmine Akira, 無の問題 (The Problematic of the mu), in: *Keisei Nishitani Keiji*, Kyoto 1993: toueisha. Saitō Giichi, 体験と思惟の相即性 (The dependent relation of experience and thinking), in: 情意における空 (śūnyatā in emotion and will), ed. By UEDA Shizuteru, Tokyo 1992, sōbunsha. C.E. ROBINSON, “The Conflict of Science and Religion in Dynamic of śūnyatā”, in: *The Religious Philosophy of Nishitani Keiji*, Asian Humanities Press 1990. S. H. STENSON, “Beyond Science and Technology of Absolute Emptiness”, in: *The Religious Philosophy of Nishitani Keiji*.

4 NISHITANI Keiji, 宗教とは何か(What is Religion?), Tokyo 1961: sōbunsha, p. 4. Nishida Kitarō, 善の研究 (An Inquiry into the Good), Tokyo 1999: iwanami, pp. 209-213.

loses its necessity (at a spiritual level), where our existence as a unity of body and soul raises the great question, “What is life?”, for ourselves. With this question the *nihilum* rises swiftly from the bottom of our consciousness, where our awareness of our own existence shows a deep dimensionality of our Self. To open up this horizon of the *totalized nihilum* of our lives we require a drastic transformation of our question, “What is life,” in general.

NISHITANI states that religion is not defined by faith or by recourse to gods or Buddhas, but by the recognition of reality through one’s own body and consciousness.⁵ The postulate of what religion is, is actualized in the following question, “What is the real truth in our life environment?” The question of *what is truth* is bound to our experience of the truth of reality as it is.⁶ On the other hand, we can say that the answer to the question of the reality of truth is none other than that “something/someone grasps the essence of itself in the reality of its existence.” The significance of this recognition *does not lead to* someone grasping an essential being as a metaphysical substance (substratum). Also, it is not such a theoretical cognition that a thinking subject would grasp the essentials of *res cogitans* and *res extensa* as a Cartesian *cogito*. This level of separation between a thinking subject and the object of his/her thinking is *transcended* in NISHITANI’s philosophy, where the thinking and acting self *transforms* his or her previous ego and *surpasses* the dualistic separation of the worlds of objects and subjects.

If we regard ourselves as a beings bound to the unity of *life and death*, we recognize that our self is an existence that is a oneness of existing *being and non-being*. We live, as we always fall into the dimension of *mu* (無 - *nihilum*), and at the same time we recover life as existing actuality. Our self is on a wave continuum of the *nihilum* and existing life, their *inter-action*, *self-transformation*, and the *resolution* of their *dualistic separation*. Religion is established precisely at the moment in which our self suffers in these dimensions of existence and non-existence (*nihilum*), life and death, where our self *becomes* the dimension of the problems of our circumstances, where all things in the world fall into the great *nihilum*. In other words, we recognize our self and the existential ground of everything as the dimension of *nihilum* in our life’s reality – the *nihilum* is found at the deep bottom of the whole world. In this dimension there is *no separation* of a doubting subject and something that is doubted. Our self *transcends* their dualistic separation and *becomes* a unity of the “*great doubt*” in which our selves

5 NISHITANI Keiji 宗教とは何か(What is Religion?) Tokyo 1961, sōbunsha, p. 9.

6 NISHITANI Keiji 科学と宗教(Natural Science and Religion), in: 西谷啓治著作集(Complete Works of Nishitani) vol. 6, Tokyo 1993: sōbunsha.

and the things we suffer from become a dimension of absolute oneness. This is not mental doubting performed by an *ego cogito*. Rather, it is the whole dimension of a *pure doubt of our existence*. In this moment, the *ego* or mental self as a distinguishing one *falls*. From the bottom of the fallen *ego*, a reality of the self and all beings is actualized and recognized by the each self. In this moment, the self becomes the *true self*; everything *appears transparent* as a *real self*. This process of the transformation is *the birth of the true self after the death of the ego*, which is spoken of in several religions. In other words, it is the *self-recognition* after self-transformation through our self-critical reflections. NISHITANI discusses the relation between religion and science from this perspective and position, i.e. the *recognition of the real truth* in our life experiences.

2. The progress of the natural sciences in modern times and since the fall of the religious view of the world

The natural sciences trace all realities of the world back to material things. They apply the law of nature as objectivist truth in their methods of observation and investigation, which dominates organic and non-organic being, humans and their personalities and spiritual horizons without exception. The objectivist truth of the natural sciences is based on the objective observation of the laws of nature. In explaining and assessing the natural sciences no one is allowed to oppose anything from an *external view* outside of them. Even if the explanations of natural laws are principally hypothetical in natural science, the results of its research are always presented *as* a statement of *absolute objectivist* cognition. This is where the original position of the authority of “natural scientific cognitions” is taken: Natural sciences and their thought *should be* accepted principally as “absolute objective truth”.

In pre-modern Europe, before the natural sciences were established in their rigorous sense, the law of nature was understood as the order of God and the *sensorium dei* was found in the law of the nature. The order of nature as a whole was entwined with the law of the human world. In other words, all things in the universe existed in their own places as given by God. The order of the universe was well organized according to the teleological purpose of God; the existence of God was evidenced in the entire universe. The unity of the universe viewed from this teleological perspective meant there was harmony between the world and humankind. The human being was viewed as the general representative of God with a privileged and dominant position over the rest of creation and the world was centralized by these human aspects. The existence of the world and its

teleology were considered from the perspective of the significance of human existence and its well-purposed design and institution under God (as *causa finalis*). In this relation between God and humans, the “world” was positioned as a well-organized unity, able to support an harmonic axis of God, humankind, and cosmos.⁷

Yet, through the dissemination of the outlook of the natural sciences that was established in modernity, this view of the natural world was radically changed – from a religious view ordered by teleological aspects to a view ordered by mechanical calculations. “Nature” was removed from the religious view completely, since the cognition of “nature” became the task of the modern natural sciences. Our human world became dominated by mechanical laws and their mechanical consequences, and under the rule of law of the natural sciences it became a world of non-humanity – separated from the human world and dispensing with all relations to human beings. It was the fall of the previous relation between the world and humans, the relation between God and the universe. In the personal relation between God and humankind, the dominance of the natural sciences had separated human nature from God. Under the law of the natural sciences the human being no longer held the privileged position of God’s special creation. The human being became one of the material beings ordered by the law of the natural sciences.⁸

On the other hand, in this modern era, with the overcoming of the order of God the human being became established as an autonomous thinking subject. The position of rationality and human reason was accented by this shift. Following this new rationalist materialistic view, a number of intellectuals recognized that human reason was an absolute activity with which to dominate the regulation of the various beings in the whole world. This activity of rationalist reason and the materialism of the natural sciences have cooperated since the advent of modernity and introduced the concept of world *progress*. From the integration of both sides, materialism and the primacy of human reason, progressive atheism emerged. This kind of atheism has been successively developed in the contemporary world. On the other hand, with the demonstration of the meaninglessness of the material and mechanical world, the presence of the *nihilum* was recognized at the bottom of our self-cognition. Nishitani is of the opinion that this kind of “*nihilum*” should be recognized as the fundamental ground of our existence beyond the previous principle of the progress of human reason. In

7 NISHITANI Keiji 宗教とは何か(What is Religion?), Tokyo 1961: sōbunsha, p. 57.

8 *ibidem*, p. 69.

NISHITANI’s thinking, atheism is the position that we exist in the field of this *nihilum*, in other words, in ‘emptiness.’⁹

The progress of the modern sciences and the development of atheism in the occidental world changed the general view of nature. Disregard and ignorance of a religious view gradually followed. One example is the atheistic existentialism of Sartre. Especially for theism like that of Christianity, the changing human view of the natural world could not remain without any relation to the “religious view to God.” The position of the natural sciences became the fundamental problematic relating to the question of an adequate view of *God per se*. Parallel to the establishment of the scientific view, the human view of nature had been changing from teleological to functionalistic. From this position the relation between nature and the human being has successively changed. The human view of nature has been completely detached from the basic source of the religious perspective.

3. Nature, the functionalizing of humans, and nihilism

The consequent law of the functionalism has dominated our view of the natural world ever since. The latter becomes more and more emotionless to us, lacking any relation to humankind and the image of a “dead world” rears its head. This is the world in which we live and it is the world we cannot leave – a world in which it becomes virtually impossible to live as a *human* being. In this changed world our human existence is nearly destroyed and the reality of this phenomenon pushes us to desperation.¹⁰

But yet another quite serious problem occurred in this last step of functionalism: the relation between humans and instruments was *reversed*. The use of instruments produced drastic changes in both nature and humans. Dominance of the use of instruments replaced the activity of human life, as ordered by natural scientific law, with functionalistic laws. Human personhood was thereby *uninstalled*. Ordered by natural law, mankind adopted the goal of dominating nature by means of instrumental functionalism. Yet this fact was also attached to the real nature by which human beings had been previously ordered.¹¹ This contradictory situation brought human beings into a crisis: the functionalization of human nature accompanied by the loss of humanity – the crisis of civilizations and cultures.

9 *ibidem*, pp. 61 – 65.

10 *ibidem*, p. 97.

11 *ibidem*, p. 95.

This “*reversed relation*” between nature and humans, accompanied by the loss of humanity, brings us into a more serious situation: Through their existence *in* nature, humans are now based on *limitless freedom* in a nihilistic way. They use the beings of the nature *as if they were in a horizon out of the whole of nature*. As the result, they fall from the position of highest rationalist reason and into one of animal instinct. And they furthermore make use of nature in a quite arbitrary way.¹² NISHITANI mentions that we can actually read a code of nihilism here. Yet he shows that we must recognize this crisis while making the clear decision to stabilize existence with our true humanity. This new way of *nihilism of awareness* is actualized in NISHITANI’s philosophy.¹³

The law of nature is recognized through human activity. This structure is dominant in human life and leads us to rationalized life in society. It has existed since the period of the Enlightenment of the eighteenth century and is understood as the “progress” of mankind even now. Indeed, we have greatly benefited from the progress of civilizations and technologies in our rationalized lives since the Industrial Revolution. On the other hand, the actual “*nihilum*” lies deep at the bottom of our rationalized life. And now, the loss of our humanity has appeared – caused by the functionalizing of our human nature. Additionally, an unreasonable “freedom” based on an *instinctive or egoistic will* becomes dominant. Humans are led by the functionalism of the instruments they have created. The “progress” of the natural sciences and the “anti-progressiveness” of human morality are the basic phenomena out of which various problems occur in human society – a common fact that we experience in our daily lives. Whether we recognize it or not, this phenomenon is none other than the appearance of nihilism in a coded form.

I mentioned above that the establishment of the instrumental functionalized world destroyed the previous view of nature from a teleological way of thinking. At the same time, Christianity, closely tied to the teleology of the One God faith, cannot exist in the absolute same level as the natural scientific position. Even if Christianity were never disturbed by the natural sciences, the cognitive contradictions between this religion and the natural sciences could not be hidden. These phenomena have deep influences in the internal life of our humanity as well. Positioned at the horizon of the deep “*nihilum*,” the human being exists as a limitless will to instinctively survive. NISHITANI states that in this

12 *ibidem*, pp. 97 – 100.

13 *ibidem*, 9. 97. NISHITANI Keiji, ニヒリズム (Nihilism), Tokyo 1958: atene shinsho, pp. 1 – 17. SASAKI Toru, 西谷啓治—その思索への道程 (Nishitani Keiji – The Way of his Thinking), Kyoto 1986, hōzōkan, p. 141.

way, where the Nihilism is caused by the “progress of the natural sciences,” the contradictions between the natural sciences and religion become deeply and intensively problematic.

We cannot overcome this predicament merely through recognition of the personal relation between God and humans or through the cognition of our person and our spirit. We must open *another horizon* in which the previous cognitions of the person and the spirit can be transcended. We strive to reach a new horizon of trans-personality in which we will be able to actualize the *field* for overcoming this crisis. This is NISHITANI’s thesis: Religions, in their previous ways of thought and faith, cannot adequately deal with these crucial phenomena. A new kind of religious insight is strongly needed, one which is able to examine the natural sciences through the lens of existential life and with existential recognition of religious views, *independent* from a previous way of faith. Nishitani stresses that we must repeatedly ask the essential question, “*What is natural science?*” precisely at the horizon where the fundamental problematic of humanity is realized through this new view of our spirit. NISHITANI presents an actual postulate for the natural sciences based on this existential way of thinking.

II. The crucial problem of the life sciences

In view of the deep contradictions between the natural sciences and religion, I am aware that I cannot achieve the same level of deep reflection on nihilism and the Buddhist conception of “*emptiness*” (*śūnyatā*, 空 *kū*) that NISHITANI does. Yet, on the other hand, I recognize the basic problem: As a physician and life scientist, I have researched this problematic from the perspective of the natural sciences for a long time. As a life scientist, I have concentrated on researching human biology and neurology for half a century. In my particular field of expertise, neurology, I research the structure of consciousness, sleep, memory, and the mental activity of humans *per se*. In terms of physiological aspects, I research the functions of the human brain in which a highly developed construction of nerve systems is observed. I have been attempting to determine the structure of the biological life of a human in regard to cell membranes and the material transformation of cells which form the basic building blocks of the aforementioned human activities.

Yet, in a fundamental consideration of mine, one point is quite evident: A number of cognitions drawn from my life science research are only a series of facts and material. What is lacking is a reflective explanation of the sense and

significance of *what life is* at all. I do not intend to present my cognitions from life science here.¹⁴ However, I will draw on some important problems from my experiences in the contemporary life sciences, which tend to be limited to the world of natural scientists. Also, I can reflect on the causality of the various problems of the life sciences and the debates of natural scientists about the question “What is life?” For example, in the subjects of animism, instrumentalism, and organism, by regarding the phenomena of the “light and the shadow” (positive and negative aspects) which has been provided to mankind by natural scientific research, I would like consider where we are positioned in the continuing history of the life sciences here and now.

I suppose these considerations could lend support to NISHITANI’s philosophical method and answer the question of why he reflected on the relations *between* natural science and religion in his work, “What is Religion?” in which he recognized the crisis of contemporary civilizations. Perhaps my own considerations could help develop NISHITANI’s thinking as to how to position the contemporary natural sciences generally to the field of the basic problems that he mentioned in his works. And I suppose that my presentation could provide a useful explanation as to the basic reason why I, as a scientist, have been a follower of NISHITANI’s philosophy. My considerations should also help answer the question of if and how far this common ground between NISHITANI’s philosophy and my professional activities can contribute the further development of the life sciences in our contemporary world.

1. The basic position of the life sciences

Life science is one of the most important fields of the contemporary nature sciences and is dedicated to investigating the phenomenon of life. The term “life science” is sometimes understood as a new scientific genre based on the development of molecular biology.¹⁵ Yet it has had a long history since the *physiologia* of ancient Greece. The questions “*What is life?*” or “*What is a soul?*” are elementary questions of mankind and have been important questions of philosophy and religion. They were first asked by philosophers in ancient Greece, and by Brah-

14 OKADA Yasuhiro, 生命・脳・いのち——生きるということ (Organism, Brain and Existing Life), Tokyo 1996: Tokyo kagaku dōnin. Okada Yasuhiro, 21世紀の生命を考える (Towards Life and Existence in the 21st Century), Tokyo 2001: kinpōdō.

15 NAKAMURA Keiko, 生命科学と人間 (Life Science and the Human Being), Tokyo 2001: NHK Books, p. 19.