Holistic Medicine between Religion and **Science:** A Secularist Construction of Spiritual Healing in Medical Literature

Anne Koch

Interfaculty Program Study of Religion University of Munich Anne.koch@uni-muenchen.de

Stefan Binder

Department of Philosophy and Religious Studies Utrecht University S.binder@uu.nl

Abstract

A particular formation can be observed in the discourse of spiritual healing and complementary and alternative medicine (CAM). Explanations of the effectiveness of spiritual healing by medical doctors and psychologists sometimes include ideological and non-scientific conclusions and concepts, which are similar to but also different from New Age science on healing. With discourse analysis discursive nodes and strategies are identified in international medical and psychological research journals at the boundary of CAM, traditional medicine, and psychosomatics from the last decade. The article develops the category of secularism to describe these propositional formations and contributes to the larger debate of postsecular societies. Postsecularism not only puts public religion but also secularisms back on the agenda. This particular secularism in the field of spiritual healing is based on transfers of knowledge and practices between subareas of a functionally differentiated society: esoteric and scientific cultural models shift into medicine, and continue into the area of health care and healing. The article demonstrates how this secularism gathers around key concepts such as emergence, quantum physics, and physicalism, and is engaged in a permanent boundary work between conventional and alternative medicine, which is governed by the notion of holistic healing.

Keywords

spiritual healing; medicine; holism; spirituality; secularism

© Koninklijke Brill NV, Leiden, 2012 DOI 10.1163/18748929-8910000

1. Introduction

This article is a study of discursive formations in medicine (and to some extent also psychology) that explain spiritual healing. ¹ The analyzed propositional figures are on the borders of the discipline of medicine, close to the non-empirical, and are outside the methodology adhered to in the academic discourse of the universities. While the concept of scientific knowledge has been narrowed down since the eighteenth century to mean the results of a natural science that proceeds methodically, logically, and empirically,² certain theological, metaphysical, or esoteric elements that were once excluded from mainstream scientific discourses and degraded to undercurrents are now coming back: this happens when holistic or existentialist explanations of the world are presented by scientists, or when religious actors use scientism as a strategy for plausibilizing and legitimizing claims, which (according to this new scientific understanding) are based on nonscientific premises. With our suggested category of secularism we want to contribute to the larger debate on postsecular societies. Postsecularism not only puts public religion but also secularisms back on the agenda. The idea behind this conceptualization of secularisms is the sociological theory of differentiated societies. Some secularisms occurred when formerly religious knowledge or responsibilities were taken over by new institutions, for instance, fire insurances instead of prayers to fire as protecting forces or juridical investigations on moral behavior instead of religious confessions about it. Beside these 'secularized secularisms' we propose 'secular secularisms.' By 'secular secularisms' we address knowledge, rhetoric, figurations, and practices that stem from secular subareas of functionally differentiated societies. They are secularisms insofar as they supply new ultimate orientation systems, which can be located outside their initially secular boundaries and in what we understand as the domain of second order religion. In the field under consideration, a terminology can currently be observed which exceeds any normative scientific

¹⁾ Spiritual healing is used here as an umbrella term to refer to often very different forms of healing. In this general sense, terms are often used such as spiritual or energetic healing, therapeutic touch, etc. We are grateful to Elisabeth Petrow for her help in compiling the references and Ruth Schubert for the translation including the German citations.

²⁾ Kocku von Stuckrad, *Locations of Knowledge in Medieval and Early Modern Europe: Esoteric Discourse and Western Identities*, Brill's Studies in Intellectual History (Leiden: Brill, 2010).

production of knowledge as well as a common spiritual, religious, or 'philosophical' rhetoric. It is used at scientific places of discourse and involves scientific terms. Such interferences between the history of science and religious history are described by Burkhard Gladigow³ as a *vertical transfer* between specialized subareas of a society, for instance, between religion and politics, education, law, family, or economics. Such transfers occur regularly in European religious history, especially in modern times. Vertical transfer therefore denotes the wandering of knowledge and practices between the sub-systems of a differentiated society, i.e. a society that has generated system codes or field logics unique to certain societal areas.

An amazing number of experts in physics, medicine, and psychology who address the topic of spiritual healing and stand up for it at specialist conferences, leave the methodology of their discipline behind. They construct worldviews and depart from the sphere of the empirical. Even when they reflect on this by calling their proposition a hypothesis, or just a consistent formulation,⁴ they open up an auspicious future. This can be stylized by reference to the history of science, in which certain breakthroughs were only made possible by pioneers who initially were the target of ridicule.⁵ Contemporary scientific thinking is seen, for instance by the psychologist Harald Walach, as "frequently very dogmatic and a priori." He says we forget that the scientific worldview describes only a small part of reality, and does not do so "finally and conclusively." This is an agnosticism that nevertheless plausibilizes the possibility of spiritual healing at the rhetorical level. At this point of the argumentation we can frequently observe a leap towards the scientific position and the ethical requirement to "take seriously" those phenomena that do not fit the picture.6

There are also other features of New Age science that cannot be overlooked. One example out of many is Jakob Bösch, who has completed a habilitation thesis in medicine. He popularizes quantum physics as religious knowledge and as a worldview: spiritual healing is necessary because there is no difference between matter and energy. This is underlined by the

³⁾ Burkhard Gladigow, "Europäische Religionsgeschichte," in H. G. Kippenberg and B. Luchesi (eds.), *Lokale Religionsgeschichte* (Marburg: Diagonal-Verlag, 1995), 15–38.

⁴⁾ Harald Walach, "Heilen durch 'Energien': Theoretische Überlegungen," in W. H. Ritter and Bernhard Wolf (eds.), *Heilung, Energie, Geist: Heilung zwischen Wissenschaft, Religion und Geschäft* (Göttingen: Vandenhoeck & Ruprecht, 2005), 80–105.

⁵⁾ Ibid., 84.

⁶⁾ Ibid., 84; and on the characterization of one's own counter proposal: 97.

fact that he himself has seen Philippine healers dipping their bare hands into coconut oil at a temperature of two to three hundred degrees centigrade, without suffering any injury.⁷ This goes beyond the boundaries that we will explore by using Gladigow's concept of vertical transfer between religious and scientific meaning systems. Our aim is to show in detail the forms this transfer takes, the strategies that are at work, and the plausibilities that make it possible. To do this, explicit propositional formations and implicit strategies will be reconstructed from texts, and the role of metaphors will be considered. Many authors follow Blumenberg in describing the polyvalence of metaphors as their elasticity, which enables them to play a decisive role in the transition between mental frameworks.8 Over time, metaphors and topoi bring about a certain enrichment of the associated bodies of knowledge, notwithstanding the cognitive simplicity that is guaranteed by their conciseness. If there is a fundamental change between plausibilities, as there was on the edges of medicine in the first decade of the twenty-first century, then a few metaphors bear the burden of proof for the new, transformed mental framework.

The sources consulted for our study are over twenty articles from internationally acclaimed journals, edited collections, usually of papers presented at academic conferences, and a few popular science newspapers from the period 2000 to 2010. They were taken from the following journals: Alternative Therapies, Annals of Internal Medicine, Forschende Komplementärmedizin und Klassische Naturheilkunde, Komplementäre und Integrative Medizin, Schweizerisches Medizin-Forum, Supportive Care in Cancer, Scientific World Journal, Journal of Alternative and Complementary Medicine, Explore: The Journal of Science and Healing, Complementary Therapies in Medicine, and Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie. These journals were chosen because they are mainly

⁷⁾ Jakob Bösch, "Einsichten in die Heilkraft des Geistes," in A. Reiter and A. Bucher (eds.), *Psychologie – Spiritualität: Interdisziplinär*, first edn. (Eschborn bei Frankfurt, M: Klotz, 2008),247–259.

⁸⁾ How metaphors in the public and popularized discourse of newspapers can hide a paradigm shift that took place long ago in academic genetics has been shown by Alexandra Grieser in an analysis of the discourse surrounding the decoding of the genome. See Alexandra Grieser, "Perspektivität als Arbeitsform: Ein Beitrag der Religionswissenschaft zur Bearbeitung komplexer Gegenstände, zur Plausibilität von Religion und Wissenschaft und den Rhetoriken der Genetik," in: T. Meier and P. Tillessen (eds.), Über die Grenzen und zwischen den Disziplinen. Fächerübergreifende Zusammenarbeit im Forschungsfeld historischer Mensch-Umwelt-Beziehungen (Budapest: Archaeolingua, 2011), 159-178.

occupied with the boundary work between biomedicine and alternative medicine. In view of the overall medical output, this is certainly a very marginal discourse. And yet it is significant, because it overlaps with a popular demand for alternative medical practices: "anything that heals." It helps to meet this demand and it is therefore very effective despite the low number of voices engaged in this kind of discourse on spiritual healing.

The examined discursive formations present a vertical transfer from mainly physics and medicine to religion. But the new clothes (e.g. quantum healing) disguise the religious function of holistic and existentialist explanations behind a scientific language. Thus, we will call the result of the respective vertical transfer a 'secularism.' The subarea outside science in our context is spiritual healing, energy healing, or so called alternative medicine. This article examines this particular production of knowledge on the basis of its argumentative patterns and hegemonic concepts.

The aforementioned notion of secularism may irritate since, in the past, it has been approached as a substantial understanding of a historical process of secularization or desecularization. In the sociological paradigm of (de)secularization, reconstructions were put forward from two sides: as spiritualized medicine or as scientificated religion. We propose to move beyond this alternative and address secularism at a purely methodological level: by describing newly appearing discourses in the sense of Foucault as sets of propositions and practices reigned by specific rules.9 The propositions about energy healing, for instance, are a secularism because of their discursive context (that is science) and due to their internal discursive strategies we will analyze in the remainder of the article. We therefore step into a blank left behind by theories of the postsecular as prominently propagated by Jürgen Habermas and others. 10 They claim a come-back of religion but lack concepts to describe these new formations, if not in a substantialist way as re-enchantments, holiness, growth of religious affiliation, or irrational outburst of religious violence, etc.

⁹⁾ Michel Foucault, $Arch\"{a}ologie\ des\ Wissens$, first edn., twelfth reprint (Frankfurt am Main: Suhrkamp, 2005).

¹⁰⁾ On Habermas, Michel Foucault, and Talal Asad see: Michiel Leezenberg, "How Ethnocentric is the Concept of the Postsecular?", in Justin Beaumont, Christoph Jedan, and Arie Molendijk (eds.), *Exploring the Postsecular: The Religious, the Political, and the Urban* (Leiden & Boston: Brill, 2010), 91–112.

10.1. Vertical Transfer of Concepts from Science to Religious Studies

Vertical transfer is certainly not a purely European phenomenon, and yet, by moving from the natural sciences to the study of religions, it has created a situation typical of the path-dependency of present-day religious and cultural studies. Dynamism, for instance, as used in physicotheology and romantic nature philosophy, was one of the earliest theories to be developed within the discipline of religious studies. A founding figure of religious studies, Max Müller, described the Melanesian concept of mana, meaning that which is infinite, in a significant comparison as a "magical fluid, comparable to electricity." This was a vertical transfer from the field of physics, or, to be more precise, from a secularist offshoot of that time: mesmerism. It was continued by Robert R. Marrett and Nathan Söderblom, who, in referring to mana, spoke of energy, an impersonal force, and the idea of transferring power. The mana theory has an important function: a divine power present in all things can be tied to the pantheistic scheme. Dynamism then crops up in classical studies in the early twentieth century, from classical philology to Egyptology: mana is now identified in all cultures. This metaphysical objectification of dynamism permits a comparative study, according to which religion is the same in all cultures. At the same time it blocks sociological definitions of religion, and supplies religious phenomenology with a justification for historical de-contextualization. This is why the introduction of the concept of charisma by the sociologist Max Weber is so important. For he distances himself from the metaphysical meaning, and subsumes other indigenous names for powers under charisma, besides mana, and interprets them from the point of view of action theory: charisma is a certain expectation in respect of things and persons (2005/1922).11 Charisma thus refers to different emic constructions and conceptualizes power as a willingness to attribute a certain meaning. In this it goes against the dynamistic interpretations, which were the most important scientific models in the study of religions between the two world wars.¹²

¹¹⁾ Max Weber, Wirtschaft und Gesellschaft. Die Wirtschaft und die gesellschaftlichen Ordnungen und Mächte. Nachlaß, Teilband 2: Religiöse Gemeinschaften (Tübingen: Mohr-Siebeck, 2005/1922).

¹²⁾ Burkhard Gladigow, "Naturwissenschaftliche Modellvorstellungen in der Religion-swissenschaft zwischen den Weltkriegen," in H. G. Kippenberg and B. Luchesi (eds.), Religionswissenschaft und Kulturkritik: Beiträge zur Konferenz The History of Religions and

Thus, not only religions, but also philologies, social sciences, and natural sciences generate interpretations of the world that go beyond empirical knowledge and provide orientation and norms for action.¹³ The medical secularism considered here is a vertical transfer between scientific and religious discourses. Gladigow lists the following systematic options for such a transfer:¹⁴

- 1. Restriction to the cognitive sphere: science supersedes religious orientations.
- 2. Complementarity: the religious position gains a deeper insight into creation thanks to science.
- 3. Replacement: science as a new religion (for instance in the work of von Weizsäcker), popularization of science to create worldviews.
- 4. Assessment and critique of the religious tendencies in science. Here, Gladigow localizes his own project of a European history of religion.

In Kocku von Stuckrad's model of discourses, transitions between knowledge systems occupy a central position. This makes it possible to detect tendencies that determine the vertical transfer, such as the dissatisfaction with modernity around 1900, as expressed in Haeckel's monist theory of nature. In many concepts of theoretical biology, especially

Critique of Culture in the Days of Gerardus van der Leeuw (1890–1950); [Groningen 1–3 May 1989] (Marburg: Diagonal-Verlag 1991), 177–192. Kippenberg has emphasized the con-currence of opposing models in research on religions at the beginning of the twentieth cen-tury: Hans G. Kippenberg, "Rivalität in der Religionswissenschaft: Religionsphänomenologen und Religionssoziologen als kulturkritische Konkurrenten," Zeitschrift für Religionswissenschaft 2 (1994), 69–89.

¹³⁾ For another analysis of a secularist discourse in scientific literature on the human body, see Anne Koch, "Reasons for the Boom of Body Discourses in Humanities and Social Sciences: A Chapter in European History of Religion," in A. Berlejung, J. Quack, and J. Dietrich (eds.), *Menschenbilder und Körperkonzepte* (ORA, Oriental Religions in Antiquity (Tübingen: Mohr, 2012), 3-42.

¹⁴⁾Burkhard Gladigow, "'Wir gläubigen Physiker': Zur Religionsgeschichte physikalischer Entwicklung im 20. Jahrhundert," in H. Zinser (ed.), *Der Untergang von Religionen* (Berlin: Reimer, 1986), 158–168.

¹⁵⁾ Kocku von Stuckrad, "Naturwissenschaft und Religion: Interferenzen und diskursive Transfers," in H. G. Kippenberg, J. Rüpke, and K. von Stuckrad (eds.), *Europäische Religionsgeschichte: Ein mehrfacher Pluralismus*, UTB Theologie, Religion, Geschichte (Göttingen: Vandenhoeck & Ruprecht, 2009), 441–467.

in research on behavior and neurobiology, there are borrowings from the religious sphere, e.g. in the formation of theories on altruism, hierarchy, ritual, or aggression. At the same time, there are borrowings in the opposite direction: theories of religion move religion back to scientific prehistory, not only in cultural terms, but also phylogenetically within the framework of Darwinism. Von Stuckrad distinguishes three historical patterns, which describe such relationships between religion and science: 17

- 1. They compete for sovereignty of interpretation.
- 2. One of them postulates an inherent harmony among themselves.
- 3. The loss of importance of religious symbolic systems is compensated through art or new worldviews.¹⁸

In this article we will refer repeatedly to general discourses that enable the vertical transfer of individual concepts and ideas, such as physicalism or holism. The possible forms of vertical transfers listed by Gladigow and von Stuckrad are not mutually exclusive and are often related to each other in one and the same discursive field. What some consider a case of harmony between religion and science, others might take for an illegitimate subsumption of one under the interpretative hegemony of the other. Since transfers can bind together societal subareas that might be perceived as rather remote from each other, they are in need of justification and strategies of plausibility. These processes often take place in the form of boundary work, which regulates the distinctiveness and connectivity of two or more societal subareas. Below we will show how the concept of holism serves an instrumental role in the boundary work played out in medical discourses on spiritual healing.

¹⁶⁾ Burkhard Gladigow, "Religion im Rahmen der theoretischen Biologie," in B. Gladigow and H. G. Kippenberg (eds.), *Neue Ansätze in der Religionswissenschaft*, Forum Religionswissenschaft (Munich: Kösel, 1983), 97–112.

¹⁷⁾ von Stuckrad, "Naturwissenschaft."

¹⁸⁾ By contrast, Gladigow identifies insoluble conflict, the exclusion of scientific knowledge as in creationism, and, as in von Stuckrad's second pattern, the diffuse relationship between religion and science as the relevant historical patterns. See Burkhard Gladigow, "Europäische Religionsgeschichte der Neuzeit," in H. G. Kippenberg, J. Rüpke, and K. von Stuckrad (eds.), Europäische Religionsgeschichte: Ein mehrfacher Pluralismus, UTB Theologie, Religion, Geschichte (Göttingen: Vandenhoeck & Ruprecht, 2009), 15–38.

1.2. A Specific Secularism19

A 'secularism' is a discursive formation that is located at the interface of several discourses. As is the concept of discourse, secularism is an *analytical* category. It is shaped by discursive nodes through which propositional and linguistic patterns condense. According to Michel Foucault, such an objectification on the level of symbolic, semantic, and performative appearances is always connected with specific forms of subjectification.²⁰ We will skip the topic of the subject in this article and focus instead on the belief in therapeutic feasibility of spiritual healing. The respective secularism in medical literature, of course, is located in a framework of conditions that enable, materialize, and limit it contingently as a discursive formation. This framework is called a dispositive or apparatus in discourse theory. Let us start by locating our specific secularism of spiritual healing in its apparatus.

The kinds of changes that are found in medical literature are a reflection of social changes.²¹ For the sociologist Trutz von Trotha, these changes in the health sector take place in the secularization-spiritualization paradigm.²² Here, the main issue is a holistic idea of health²³ which has been forming since the 1960s and which has its predecessor in "parts of the

¹⁹⁾ Secularism and a broader understanding of the cultural study of religion are important topics for a new scholarly journal, *Secularism and Nonreligion* (as from 2012, eds. Ryan T. Cragun and Barry A. Kosmin); Trinity College in Hartford, US, which houses the *Institute for the Study of Secularism, Society, and Culture*; the blog *Immanent Frame: Secularism, Religion, and the Public Sphere* (URL: http://blogs.ssrc.org/tif/about/); and a Master's in *Secular Studies* at Pitzer College, Southern California, US. In Germany, the sociologist Monika Wohlrab-Sahr will lead a research group making an international comparison of religion and secularity (URL http://www.multiple-secularities.de/).

²⁰⁾ Michel Foucault, *Der Wille zum Wissen*, Sexualität und Wahrheit, vol. 1, first ed., seven- teenth reprint (Frankfurt am Main: Suhrkamp, 2008).

²¹⁾ Talal Asad, Formations of the Secular: Christianity, Islam, Modernity (Stanford: Stanford University Press, 2003).

²²⁾ Trutz von Trotha, "Die Welt ist 'leidenschaftlich religiös wie zu allen Zeiten': Soziologische Anmerkungen über Fundamentalismus, Mission und Eurosäkularismus am Beginn des 21. Jahrhunderts," in G. Nollmann (ed.), *Woran glauben?: Religion zwischen Kulturkampf und Sinnsuche* (Essen: Klartext, 2007), 111–129.

²³⁾ Anne Harrington, *Reenchanted Science: Holism in German Culture: From Wilhelm II to Hitler* (Princeton, NJ: Princeton University Press, 1996).

Homeopathic²⁴ movement."²⁵ With reference to the talk of 'spiritual energy' and 'spiritual healing' which is also found in our text corpus, von Trotha considers two social dynamics:

It is still not clear whether this is a secularization and market-adjusted commercialization of esotericism, or a spiritualization of medical knowledge and the health system [...] In view of the great variety of links between spirituality and health, both are probably true, all the more so since this mixture is characteristic of the gains and limits of secularization in modern societies.²⁶

This reciprocal dynamic can well be described with the aid of our concept of secularism. For the dynamics surrounding spiritual healing involve changes in and exchange of knowledge, and sometimes even a one-sided migration of figurations from one sphere to the other. De-secularization and secularization processes can be described in the terms of symbol theory: as the replacement of religious signs in the central body of symbols of a society (public, political, moral, or educational) by ideological signs (national, party political, scientific, humanist, or 'secular'). In European religious history, technical and scientific innovations, such as magnetism and electricity in the case of mesmerism or Hahnemann's homeopathy, have been used repeatedly to explain the existential concepts of health and illness. Thus, probably in all periods of European religious history, propositional formations that diverge from the epistemological conventions and premises of medicine are a simultaneous marginal differentiation of the scientific field.²⁷

²⁴⁾ Historically more important are anthroposophical medicine and alternative medicines, Helmut Zander, *Anthroposophie in Deutschland: Theosophische Weltanschauung und gesellschaftliche Praxis 1884–1945*, 2 vols. (Göttingen: Vandenhoeck & Ruprecht, 2007).

²⁵⁾ Von Trotha, "Die Welt," 121.

²⁶⁾ Ibi.

²⁷⁾ In the beginning science supported theology and the Christian worldview, and even in the nineteenth century romantic nature philosophy provided solutions for evolutionary biology and organic chemistry, and largely prevented competition between the systems; see Burkhard Gladigow, "'Religion' als Gegenstand unterschiedlicher Wissenschaften: Biologie, Verhaltenswissenschaften, Kulturwissenschaften," in K. Grötzinger, B. Gladigow and H. Zinser (eds.), *Religion in der schulischen Bildung und Erziehung: LER – Ethik – Werte und Normen in einer pluralen Gesellschaft* (Berlin: Verlag Arno Spitz, 1999), 3–49; Burkhard Gladigow, "Pantheismus und Naturmystik," in R. Bubner, B. Gladigow, and W. Haug (eds.), *Die Trennung von Natur und Geist* (Munich: Fink, 1990), 119–144.

Unlike the concept of civil religion, a secularism does not imply fundamental values that shape a whole society by communicating a particular view of humankind and the world, and which are frequently former values from the (former or current) predominant religious and cultural interpretative system of this particular political unit. Rather, secularism will be discussed with regard to one aspect, namely, the vertical transfer of discursive places that are productive of religion. Secularisms exist as manifold small subfields and bodies of knowledge. Path-dependent developments for this transfer are suggested in the above account of the history of the separation of scientific and religious knowledge, and their possible variety is discussed in the two systems proposed by Gladigow and von Stuckrad. In his history of the New Age, Wouter J. Hanegraaff very clearly relates esotericism to secularism as the environment in which the New Age constellation developed.²⁸ Besides the importance of the secular environment, there is a kind of complementary understanding of secularism as being formed also by interplay with the religious environment. Quite frequently New Age practices seek to delineate themselves from some mainstream and imitate the discursive conventions of science or the wellness industry in order not to be identified with religion.

Our study is not concerned with a single secularism conceived of as the opposite of religion. Rather, we are interested in a particular constellation of secularism found in the area of healing. It transpires among notions of illness, models of the functioning of the body, and ideas about the connections of the body with various animate and inanimate, energetic and material, technical, and social environments. The question is: how can ideas and practices relating to being healthy and attaining health be reconstructed from half-scientific bits of knowledge transferred from science? At what point during the genesis of such ideas and practices do normative, evaluative, and affirmative elements re-enter the analytical and empirical concept of scientific knowledge as something controlled by rational rules? These are the questions of discursive nodes, the strategies behind them, and their intertwining discourse strands.

²⁸⁾ Wouter J. Hanegraaff, New Age Religion and Western Culture: Esotericism in the Mirror of Secular Thought, SUNY series (Albany, NY: State University of New York Press, 1998). Hanegraaff describes how a secularization process within the esoteric tradition found expression in the occultism of the nineteenth century, with the result that thinking in correspondences was already complemented by causal ideas. Science is an important reference point for New Age, as it represents the secular other.

In the relationship between secularism, spiritual healing and medicine, historical phases can be distinguished, depending on which system of persuasion exercised the greater influence. They have alternated in this position. This development cannot be described as a history of rationalist progress, nor as a grand narrative, which encompasses all social milieus. In social stress situations—such as the recent big rise in health care costs, an aging society, expensive high-tech medicine, or the increase in mental illnesses—path-dependency may be interrupted, bringing non-dominant forms of secularist interpretation to the fore. Thus, secularism as a factor in the constellation of spiritual healing takes on different concrete forms: at the level of legislation (for instance concerning non-medical practitioners), in the rational organization of the costs of illness, in the system for training experts (such as doctors and psychologists), with regard to knowledge (from academic research to popular textbooks and mass-media documentations), etc.

2. Discursive Nodes in the Vertical Transfer Between Medicine and Spiritual Healing

Vertical transfers often condense in prominent shapes. We will call these prominent propositional formations discursive nodes. The following discursive nodes relating to emergence, quantum physics, physicalism, the distinction between conventional medicine and alternative medicine, as well as psychosomatics and self-healing powers only constitute a small selection from the multi-layered vertical transfer in the context of spiritual healing.

2.1. Emergence

The concept of *emergence* can be found in various disciplines, chiefly biology, mathematics, theoretical physics, and cybernetics or systems theory, and is thus embedded in a broad semantic field: chaos theory, non-linear systems or non-linear thermodynamics, open systems, dissipative structures, self-organization, homeostasis/homeodynamics, etc. In general, it refers to the properties of hierarchical structures where higher levels of order cannot be reduced to the addition or difference of the components of inferior levels. Emergence describes the origination of a whole that is more than the sum of its parts and therefore cannot be inferred from them.

In the literature analyzed for this article, processes of emergence serve to describe the human body and the way it functions.²⁹ In this context, it is necessary to distinguish several positions according to their different aims and epistemological approaches. Harald Wallach, for instance, postulates that the human organism should be conceptualized as a non-linear system, in which "[...] small or very small causally relevant local interrelations can have effects on the organismic level."30 The postulate of an emergent organismic level is used to back up forms of therapy whose pharmacological effectiveness is unproven or contested (as for instance homeopathy). Emergence supports the criticism of reductionisms which are attributed to conventional biomedicine, since the body in the sense of a machine made up of several physiological parts is rejected and replaced by supposedly holistic concepts such as "life": "the living state is a multilevel informed and informing complex dynamic regulatory system."31 The body is reduced to "continuous flows of matter, energy, information."32 The need to explain theoretically how exactly such flows might interact is brushed aside since they are merely the parts of something bigger which—as an emergence— cannot be reduced to them.

Sharon I. McDonough-Means et al.³³ go even further, since the claim that the body at the physico-chemical level is integrated in a hierarchically structured cosmological system with different degrees of subtlety. They connect the concept of an ultimate consciousness, which is well known in modern Western esotericism and transpersonal psychology,³⁴ to the body

²⁹⁾ Walach, "Heilen"; Beverly Rubik, "The Biofield Hypothesis: Its Biophysical Basis and Role in Medicine," (2002) 8 *Journal of Alternative and Complementary Medicine*, 703–717; Hendrik Treugut, "Energy Medicine: Eine Standortbestimmung," *Komplementäre und Integrative Medizin* 7 (2007), 10–18; Hendrik Treugut, "Energy Medicine und Systemtheorie," *Komplementäre und Integrative Medizin* 8 (2007), 42–46.

³⁰⁾ Walach, "Heilen," 94.

³¹⁾ Rubik, "Biofield Hypothesis," 713.

³²⁾ Ibid., 705.

³³⁾ Sharon I. McDonough-Means, Mary Jo Kreitzer, and Iris R. Bell, "Fostering a Healing Presence and Investigating its Mediators," *Journal of Alternative and Complementary Medicine* 10 (2004), 25–41; see also Treugut, "Energy Standortbestimmung."

³⁴⁾ This is not a single, concrete concept, but rather a complex of ideas based on notions like the higher self, the one mind, or the superconscious mind (Hanegraaff, *New Age Religion*, 203–224). This tradition also includes e.g. Bengston and Moga, when they speak of the "paramount role of consciousness" and consciousness as a "causal agent unto itself"; see William F. Bengston and Margaret Moga, "Resonance, Placebo Effects, and Type II Errors:

and an individual spiritual core. They posit a continuum of various intermediate stages, such as the non-local sphere, the social and interpersonal sphere, or the electromagnetic sphere. The interplay of these levels is modeled in the same way as the behavior of complex, non-linear systems, and serves among others things as a theoretical basis for the possibility of distance healing or to explain the concept of a reified metaphysical healing presence.

The similarity of this model to approaches that explicitly work with a concept of emergence lies in the significance of certain features that are attributed to non-linear systems: irreducibility, unpredictability, and dependence on context. They have in common that they distinguish themselves from conventional, mechanistic approaches, and claim to be the basis of an emerging paradigmatic turn in medical research.³⁵ Thus, emergence can be considered a permeating figure of thought, since it appears not only on the level of the research object, i.e. in ideas concerning the nature and functioning of the body, illness, or healing. It is also found on the level of scientific theory and in the debate on the relations of conventional and alternative medicine (see below). The radiologist Hendrik Treugut,36 for instance, sees his model of integral energy medicine as an emergence of various theoretical innovations, especially in the new physics, which integrates classical mainstream medicine and biomedicine as a subordinate element, but supersedes them all in the sense of "a new order on a higher level."37 In a similar vein, Beverly Rubik38 envisages that a holistic explanation will emerge from the complementarity of different theories and can only then do justice to the complexity of the object.

Such confident expectations in respect of an eminent paradigm shift are certainly not undisputed within the medical discourse field. Moreover, the explanative claim of theories based on emergence is an important type of contemporary secularism, which is related to the discursive strategy of *scientism* known from various traditions of Western esotericism.³⁹ We have

Some Implications from Healing Research for experimental Methods", *Journal of Alternative and Complementary Medicine* 13 (2007), 317–327 at 322.

³⁵⁾ Walach, "Heilen."

³⁶⁾ Treugut, "Energy Standortbestimung"; Treugut, "Energy Systemtheorie."

³⁷⁾ Treugut, "Energy Standortbestimmung," 18.

³⁸⁾ Rubik, "Biofield Hypothesis."

³⁹⁾ On scientism and its role in Western esotericism, see Olav Hammer, *Claiming Knowledge: Strategies of Epistemology from Theosophy to the New Age* (Leiden: Brill, 2004).

here models of the body and explanations of health, healing, and illness with occasional cosmological dimensions, which use scientific vocabulary like non-linearity or emergence for a sweeping and very general argumentation. The methodologically standardized and operationalized procedures of mainstream medicine are expressly rejected as inadequate or reductionist. Anyone wanting to know more about the relationships and mechanisms between the different system levels is tersely referred to "feedback processes and other numerous pathways of information flow"40 or "strange attractors and innumerable flows of information."41 The need for detailed and verifiable explanation is bypassed through the demand for a holistic approach to illness and backed up by notions such as emergence. Bösch⁴² for example, a medical doctor, first draws on empirical research to support his claim that the symptoms of illness emerge from the convergence of physiological and social (patient-healer relationship) factors. He goes on to place this idea of holism in the esoteric narrative of illnesses as "spiritual aids on a path of mental and spiritual development."43 Instead of a theoretical substantiation of the spiritual implications of holistic healing, he only points out the inadequacy of any criticism relying on the classic research design of the double-blind, randomized experiment and its scientific criteria. This is an example of the ambivalence of the discursive strategy of scientism. It relies on studies based on clinical, empirical experiments in order to legitimize theoretical innovations, which in their turn declare as obsolete the methodological basis of those same studies. Theories of healing based on the concept of emergence qualify as scientism insofar as their argumentation relies on conclusions whose premises they later on reject. Plausibility is created neither through consistent theorizing, nor through empirical verifiability, but through the use of scientific vocabulary such as non-linearity, resonance, non-locality, or emergence.

2.2. Quantum Physics

Theoretical physics is the most frequent reference point of scientistic approaches to complementary and alternative medicine. According to

⁴⁰⁾ Rubik, "Biofield Hypothesis," 705.

⁴¹⁾ Ibid., 707.

⁴²⁾ Jakob Bösch, "Wissenschaftliche Grundlagen des geistig-energetischen Heilens: Teil 1," *Schweizerisches Medizin-Forum* 21 (2002), 511–516.

⁴³⁾ Ibid., 512.

the scholar of religion Olav Hammer, an important feature of references to quantum physics is that they are based on a homogenized picture and a specific philosophical interpretation of its otherwise mathematically or stochastically formulated theories. This is most striking in the transfer of key categories—such as non-locality, complementarity, or entanglement— from a subatomic "quantum world" to the macro level of phenomenal reality. Analogous to the topos of emergence, there is no unified application of quantum physics in the medical literature but a host of different approaches that, when placed side by side, reveal a discursive node. 45

Wallach for instance rejects the idea of non-locality on the macro level (e.g. the phenomenon of distance healing) as a direct consequence of subatomic non-locality, and instead places both on the level of general "system properties" of the cosmos: as different manifestations of a yet higher form of non-locality. The laws of classical physics, being based on causality, are thus only a special case of a higher, non-linear paradigm—with the expected consequences for the evaluation of biomedical epistemology and methodology as incomplete and fragmentary. Less subtle arguments see the development of quantum physics as a threshold requiring a completely new ontology and epistemology beyond space-time correlations. At the same time, however, they keep to the concept of universal natural laws with mathematics as the proper language of description.

In medical literature a certain speculative interpretation of complementarity, i.e. Heisenberg's uncertainty principle, which can be regarded as marginal in the mainstream of theoretical physics, is often an occasion for rethinking the relationship between consciousness and the material under the concept of "decoherence." In an idealistic manner, consciousness becomes a central factor and is included in the equation as an "agent unto

- 44) Hammer, Claimina, 273.
- 45) Walach, "Heilen"; Rubik, "Biofield Hypothesis"; Bösch, "Grundlagen I"; Jakob Bösch, "Wissenschaftliche Grundlagen des geistig-energetischen Heilens: Teil 2," Schweizerisches Medizin-Forum 22 (2002), 533–538; Treugut, "Energy Standortbestimmung"; Bengston and Moga, "Resonance"; Barbara G. Koopman and Richard A. Blasband, "Two Case Reports of Distant Healing: New Paradigms at Work?," Alternative Therapies 8 (2002), 120–119.
- 46) Walach, "Heilen," 99–100. The recourse to a hierarchically higher order in the sense of a whole that is more than the sum of its parts points again to the notion of emergence and testifies to its status as a pervasive figure of thought.
- 47) Koopman and Blasband, "Two Case Reports." See also footnote 13 on the role of natural science for the development of modern esotericism and the New Age.
- 48) Hammer, Claiming.

itself,"⁴⁹ thus becoming a decisive factor for fixing the "crazy quantum world" in a stable "classical state."⁵⁰ With this ontologized variation of the adage "the measurement affects the result," it is then possible to argue in favor of a theory of distance healing. As in the case of emergence, the interpretive model of decoherence moves on to a reflexive metalevel and explains the alleged methodological inadequacy of conventional medical research, which to this day has been unable to provide evidence of the effectiveness of many forms of alternative medicine.⁵¹ Theories of decoherence are put forward as a solution for the deficits of classic methodology and claim to be able to cope with mysterious anomalies such as distant healing. Their crux is a form of self-immunization since they are theoretically designed in such a way that they can neither be falsified nor verified empirically, at least not with the classic gold standard of the RCT experiment.⁵²

Such a 'new science'—with quantum physics as essence and forerunner— is often embedded in historical narratives: the stochastic formalism of quantum theory is interpreted as a scientific description of ancient phenomena which are supposedly known to all cultures, such as a subtle life force, vitalism, the Chinese *qì*, or the Indian *kuṇḍalinī*. In light of Gladigow's abovementioned constellations of science and religion we have here a vertical transfer based on the postulate of an inherent complementarity and convergence of science and religion. Moreover, this argumentation is frequently subject to a kind of salvific elevation, for instance in the work of the physicist Harald Atmanspacher, who embeds it in a universal evolution of consciousness to the extent of acategoriality, a concept borrowed from Jean Gebser and Carl G. Jung. For Jung, acategorial or integral consciousness is at

⁴⁹⁾ Bengston and Moga, "Resonance," 322.

⁵⁰⁾ Bösch, "Grundlagen II," 535.

⁵¹⁾ Bengston and Moga, "Resonance"; Treugut, "Energy Standortbestimmung."

⁵²⁾ Bösch, "Grundlagen I"; Bösch, "Grundlagen II."

⁵³⁾ Rubik, "Biofield Hypothesis"; Koopman and Blasband, "Two Case Reports"; Walach, "Heilen"; Treugut, "Energy Standortbestimmung"; Wayne B. Jonas and Ronald A. Chez, "Recommendations Regarding Definitions and Standards in Healing Research," *Journal of Alternative and Complementary Medicine* 10 (2004), 171–181; James L. Oschman, *Energiemedizin: Konzepte und ihre wissenschaftliche Begründung*, first edn. (Munich: Elsevier, Urban & Fischer, 2006).

⁵⁴⁾ Harald Atmanspacher, "Erkenntnistheoretische Aspekte physikalischer Vorstellungen von Ganzheit," *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie* 38 (1996), 20–45.

the end of the evolutionary development of human modes of cognition and will conclude humanity's path from archaic through magical, mythical, and mental stages of consciousness. This is an example where the consequences of decoherence are applied to the metalevel of a theory of knowledge and thus support a vertical transfer between science and religion in the sense of a complementarity. Walach takes the theorem of *entanglement* from quantum theory in order to explain healing. The starting point here is a "fundamental non-locality of the world,"55 which comes about because the world is holistically correlated. This means that a material state can only be described through its definite and relevant relationships to all states of other elements. Even if an element is miles away, this distance (i.e. nonlocality) is irrelevant in the grand perspective, and the state of the distant element influences the properties of the locally measured element, for they are all parts of the whole ("the world," the "system," etc.). Quantum theory became integrated in the New Age movement in the US in the 1960s and 1970s.⁵⁶ Epistemologically, the "integrating view"⁵⁷ is a continuation of Ken Wilber's integral view, and of the neognostics,58 who speak of "holons": holistic units through which the micro cosmos and the macro cosmos form a unity. In this movement there is an interrelation between one's egoconsciousness and the cosmos. In this way quantum theory overcomes the spirit-material dualism: the spirit has no counter force in the material, but they are co-created through the exchange of reciprocal information.

Despite the great variety of these theories and the heterogeneity of their claims, they do have certain things in common that justify interpreting the reference to quantum physics as a secularist discursive strategy: the philosophical use of popularized quantum physics provides a descriptive model for spiritual healing practices and their related cosmologies. Quantum physics and mathematics, being themselves unquestionably scientific disciplines, guarantee by extension the scientific effectiveness claimed by proponents of spiritual and distance healing. Rather than providing methodologically elaborated and empirically applicable theories the main thrust of the recourse to quantum physics is the discursive delimitation from

⁵⁵⁾ Walach, "Heilen," 99.

⁵⁶⁾ Hanegraaff, New Age Religion; Paul Heelas, The New Age Movement: The Celebration of the Self and the Sacralization of Modernity, Repr. (Oxford: Blackwell, 1997).

⁵⁷⁾ Walach, "Heilen," 104.

⁵⁸⁾ Raymond Ruyer, La Gnose de Princeton: Des Savants à la Recherche d'une Religion, Evolutions (Paris: Fayard, 1975).

'conventional medicine' and its sovereignty over the criteria for what legitimately counts as scientific.

Yet vertical transfer does not take place in only one direction and can happen any number of times at more or less unconnected points. The use of the ontological indeterminism of quantum theory in Heisenberg's interpretation, for example, is found in respect of spiritual healing not only among medical specialists and psychologists, but also in Christian theology. With this background theory, the Christian God is interpreted dogmatically both as a non-interventionist actor, and at the same time as an actor in the world.⁵⁹ There is a theological dilemma to be solved here, with indeterminism on the quantum level being applied to the macro world of humans, events, and actions; on the one hand, the Christian God is not to be imagined as an actor who can intervene arbitrarily and temporarily suspend closed causal relationships, while at the same time his help, support, and power is desired—but on an objective and not a subjective basis. According to the view of such theologians, the latitude offered by the ontological indeterminacy of the subtle world resolves these conflicting claims. Otherwise, the theological discussion of healing tends to focus on an evaluation of the ethical aspects of biotechnology and genetics.⁶⁰ This shows how the discursive formation of a new secularism on the edge of the field of medicine, as analyzed in this article, can exist alongside a theological discourse. Presumably as a kind of "physics envy," quanta are in this case the empty significant to which the hegemonic discourse attaches itself.

2.3. Physicalism and the Biofield

In some cases it is not the reference to scientific vocabulary or disciplines, but the recourse to materiality and the physical, which characterizes the mode of secularism encountered in medical literature. Bernhard Wolf⁶¹

⁵⁹⁾ Robert J. Russell, "Quantum Physics and the Theology of Non-Interventionist Objective Divine Action," in P. Clayton and Z. Simpson (eds.), *The Oxford Handbook of Religion and Science* (Oxford: Oxford University Press, 2006), 579–595.

⁶⁰⁾ Ronald Cole-Turner, "Biotechnology and the Religion-Science-Discussion," in P. Clayton and Z. Simpson (eds.), *The Oxford Handbook of Religion and Science* (Oxford: Oxford University Press, 2006), 929–944.

⁶¹⁾ Bernhard Wolf, "Geistiges Heilen als Lebenshilfe zwischen Therapie und Spiritualität: Religionskulturelle Orientierungen," in W. H. Ritter and Bernhard Wolf (eds.), *Heilung, Energie, Geist: Heilung zwischen Wissenschaft Religion und Geschäft*, Biblisch-theologische Schwerpunkte (Göttingen: Vandenhoeck & Ruprecht, 2005), 126–151, here 137–138.

uses the term 'physicalism' for positions that conceptualize intellectual and spiritual processes as energy and in the sense of physical processes. Such conceptions are widespread and can be found particularly in connection with the so-called biofield hypothesis (bio-electromagnetic field) and bio-photon research. These ideas of a quasi-material or subtle field as a link between consciousness, body, and environment are drawn from several different sources⁶² and consequently exist in various forms, each with its own specific nuances and emphases.63 However, most of them have in common that they refer to experimental research that uses technologically sophisticated imaging processes to demonstrate that the body produces and emits photons or electromagnetic waves.⁶⁴ These studies, however, and especially their interpretation of biophoton emission as a side effect of metabolism processes, are rarely discussed in detail. In order to create rhetorical plausibility, they are usually taken directly as empirical evidence for more or less speculative theories of a human biofield. In such theories, the biofield serves as a communication medium in internal bodily processes and in interactions with the environment, thus providing an explanatory model for spiritual, energy, and distance healing as well as healing practices involving pharmacologically irrelevant doses (e.g. homeopathy). Since the means of communication inside and outside the body are crucial in this model, energy and light play an important role as carriers of information. Again, plausibility is created through analogies with scientific disciplines and in this case especially modern information technologies, such as fiber optic communication.65 In studies that follow this "communication approach," the biofield takes on regulative and coordinative tasks for maintaining the life functions of the organism. At the same time it is the medium for communication with a healer or medical doctor and thus the basis for a

⁶²⁾ E.g.: bio-photon research, quantum physics, information technology, systems theory, or cybernetics

⁶³⁾ Rubik: classical biofield in the sense of quantal entangled light; Oschman: bio-magnetic fields; Koopman and Blasband: subtle bodies consisting of primary/primordial matter, etc.

⁶⁴⁾ Roeland van Wijk and Eduard P. van Wijk, "An Introduction to Human Biophoton Emission," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 77–83; Roeland van Wijk and Eduard P. van Wijk, "Effect of Meditation on Ultraweak Photon Emission from Hands and Forehead," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 107–112; Roeland van Wijk and Eduard P. van Wijk, "Multi-Site Recording and Spectral Analysis of Spontaneous Photon Emission from Human Body," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 96–106.

⁶⁵⁾ Bösch, "Grundlagen I"; Bösch, "Grundlagen II."

possible intervention in the case of a disturbed or diseased system.⁶⁶ The biofield takes on the active role played by consciousness in some idealistic interpretations of quantum physics (see above) and functions as an autopoietic system:

The biofield is similar to a conductor regulating the musicians playing a symphony [here the symphony corresponds to the living organism]. In this case, however, the conductor and the symphony are one and the same.⁶⁷

As soon as the biofield is established as a constitutive element of an alternative physical anthropology, and frequently also cosmology, it is easy to borrow ideas from quantum physics and cybernetics in order to make the effectiveness of alternative healing processes plausible. For example, the photons which radiate from the hands of supposedly gifted healers⁶⁸ could have an effect on the whole organism, even from a distance, because of non-linear causality (chaos theory), quantum entanglement, resonance, or because the organism is located at a higher, emergent level.⁶⁹

In contrast to some of the above-mentioned approaches, which are influenced by transpersonal psychology and the idea of a universal consciousness, we are dealing here with physicalism. The effectiveness of energy medicine and distance healing is conceptualized by postulating quasi-material substances: photons, electromagnetic waves, and subtle material. The path taken by physicalism is not recourse to abstract complexity but to physical concretion: the biofield is measurable and although it can be determined only technologically by means of complex imaging processes, it remains perceivable through the senses.

⁶⁶⁾ Rubik, "Biofield Hypothesis"; Oschman, "Energiemedizin"; Bösch, "Grundlagen II," Walach, "Heilen"; Harald Walach, "Licht: Zwischen Materie und Energie," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 74–75.

⁶⁷⁾ Rubik, "Biofield Hypothesis," 710.

⁶⁸⁾ Empirical studies (van Wijk and van Wijk, "Introduction"; van Wijk and van Wijk, "Effect"; van Wijk and van Wijk, "Multi") show that there are different intensities of photon emission depending on the person, the body part, or the time of day. Various possible explanations for this are discussed in the literature; the interpretation of it as being related to a special ability to heal has its base not in the empirical data, but in a preconceived interpretive framework. See for instance Bösch, "Grundlagen I"; Bösch, "Grundlagen II."

⁶⁹⁾ Treugut, "Energy Standortbestimmung"; Treugut, "Energy Systemtheorie"; Rubik, "Biofield Hypothesis"; Walach, "Licht."

'Conventional medicine' with a physiological, biochemical, or pharma-cological approach cannot explain this or has to rely on a psychosomatic placebo effect. The firm line that is frequently drawn between spiritual healing and the placebo effect is a revealing indicator for the discursive strategy of physicalism.

Although references to quantum physics, cybernetics, and modern imaging technologies are characteristic of the current debate, similar discursive strategies of physicalism can be found in European and North American religious history. Both in the medical literature analyzed here, and in secondary literature in the study of religions,70 Franz Mesmer's idea of animal magnetism, which later became known as mesmerism, is frequently mentioned as a historical forerunner. As we have already pointed out, many authors, in addition to making comparisons with Asian concepts such as qì or kundalinī, explicitly place themselves within the romantic tradition of vitalism. In the framework of a historical narrative of two competing currents—vitalism vs. a mechanistic worldview—the key mediating role played by the discursive strategy of physicalism is enabled by modern science and its technical applications: biophotons can be measured or made visible and quantum physics provides a mathematically exact descriptive language.⁷¹ Hammer⁷² reconstructs a similar secularist discursive strategy in the distinction drawn by Mesmer between his own work and the religious healing theories of some of his contemporaries. Physical theories (i.e. electricity, magnetism) constituted the background for his assumption of atomi materiales as the basis for certain spiritual healing practices, instead of the customary idea of qualitates occultae. Moreover, technical devices such as the baquet (Hammer calls them "cultic objects") gave healing rituals the aura of a scientific experiment. However, even Mesmer had to respond to objections raised by the contemporary scientific community, which played the role of a guard protecting the limits of science. Thus, the theory of animal magnetism had to face alternative interpretive models,

⁷⁰⁾ Hanegraaff, *New Age Religion*; Hammer, *Claiming*; Robert C. Fuller, *Mesmerism and the American Cure of Souls* (Philadelphia: University of Pennsylvania Press, 1982); Robert C. Fuller, *Americans and the Unconscious* (New York & Oxford: Oxford University Press, 1986).

⁷¹⁾ Bösch, "Grundlagen I"; Bösch, "Grundlagen II"; Walach, "Heilen"; Jonas and Chez, "Recommendations"; Rubik, "Biofield Hypothesis"; Oschman, "Energiemedizin"; Treugut, "Energy Standortbestimmung"; Treugut, "Energy Systemtheorie."

⁷²⁾ Hammer, Claiming.

which were based for instance on psychological (imagination) and behavioral (imitation) explanations.

In a historical outline, Robert C. Fuller⁷³ describes how Mesmer's concept of animal magnetism, in the sense of a quasi-physical fluidum (physicalism), was developed in a new direction by his successors, in particular Armand-Marie-Jacques de Chastenet and Charles Poyen in New England. More attention was paid to rare phenomena such as telepathy, precognition, or extrasensory perception, which tended to occur during healing rituals, and which were attributed to an altered state of consciousness (mesmeric state, somnabulism). The debate with the scientific community, and the attempt to create a theoretical basis for the concept of a mesmeric state gave rise to a specific constellation of physicalism and psychologization. In contrast to the psychological interpretation that dominated in Europe, mesmerists in the US opted for a middle course, which bears a certain similarity to today's debate on the theoretical principles of spiritual healing.

The clear rejection of placebo effects as an interpretive model for spiritual healing corresponds to the refusal of mesmerists at that time to accept purely psychological explanations.

"They feared that without the premise of animal magnetism, however interpreted, their theory quite literally lacked substance. A purely subjective psychological reality was beyond their conceptual horizons." Fuller's thesis is that the nature of this conceptual horizon—a mixture of physicalism and psychologization—was a reflection of the cultural situation at that time (secularization, scientification, individualization) and specific philosophical traditions (American transcendentalism, empirical theology, German idealism). A full-fledged discourse analysis of the present-day debate would also need to consider legislation relating to healing practices or the structures for financing research, in order to explain the plausibility of discursive nodes of secularism such as physicalism, quantum physics, or emergence.

2.4. Holism and the Separation of the Medical Field into 'Conventional' and 'Alternative'

Therefore, the discursive nodes mentioned so far should not be interpreted as a mere philosophical or scientific innovation. Rather, they must be

⁷³⁾ Fuller, Americans.

⁷⁴⁾ Ibid., 38.

interpreted within the framework of a specific discursive constellation of secularism. A central feature thereof seems to be the distinction of 'conventional medicine' (and science) from an alternative, holistic, or spiritual counterpart. The explicit aim of such boundary work is either to demonstrate the scientific respectability of complementary and alternative medicine, or its establishment as a new, dominant paradigm.⁷⁵ The discursive rules of the scientific community are the conditions of access to the scientific field and its financial infrastructure, and therefore they play a central, if ambivalent, role in the genesis of discursive positions: references to empirical and experimental research and theories originating from indisputably 'scientific' disciplines such as theoretical physics or mathematics, are the primary source of plausibility and authority. But at the same time, the basic principles of conventional science are heavily criticized. Besides theoretical and methodological criticism of mechanistic reductionism or the RCT experiment as the 'gold standard' of empirical research, there are also rhetorical dramatizations. The relationship of conventional and alternative science and medicine is then described with terms like 'struggle,' 'threat,' or 'destruction' and is frequently embedded in historical or teleo-logical narratives. Such an "ambivalent scientism" 76 leaves plenty of room for defining the relationship between alternative and conventional medicine: complementarity, chronological succession, and replacement, or the concordance of science and religion (usually in the sense of repairing the split caused by the Enlightenment, but also as a completely new stage of evolution within the history of science). With reference to the systematic options for vertical transfer between natural science and religion, as analyzed by Gladigow and von Stuckrad, the discursive nodes of secularism described here are borderline cases between a claim to complementarity and competition for interpretive sovereignty. Some models are taken from New Age science at large and interpreted as compatible with the explanatory models of natural sciences. But the mainstream of the scientific estab- lishment would consider them as unscientific and at best disputed. This compatibility, it is argued, marks a substantial historical progress, since it is tied to models of an evolutionary or emergent superiority of holistic healing models as compared to conventional biomedicine.

⁷⁵⁾ Treugut, "Energy Standortbestimmung"; Treugut, "Energy Systemtheorie"; Bösch, "Grundlagen I"; Bösch, "Grundlagen II"; Jakob Bösch, *Spirituelles Heilen und Schulmedizin: Eine Wissenschaft am Neuanfang*, fourth ed. (Bern: Lokwort Buchverl, 2004).

⁷⁶⁾ Hammer, Claiming, 204.

general realization of this superiority—or compatibility—is located in the future and heralded by means of a rhetoric of avantgarde and innovation, as seen for instance in formulations like "recent and very recent research"⁷⁷ or "findings in the basic sciences and new technologies."⁷⁸

This notion of a new medicine of the future on the brink of its breakthrough is often connected to a concept of 'holism.' Holistic medicine is sometimes also propagated under the label of integrative medicine, and has to some extent become institutionalized in societies and conferences. The intention is to explain healing, spontaneous healing, and alleged anomalies by using the methods of "whole systems research." 79 Para- psychology and spiritual energy healing would then be old-fashioned names for things that can now be positively explained. Others start with spontaneous healing and explain it in terms of a "deep cosmology" that unites brain-mind and body-mind to form a whole.80 They say that the human genome offers the possibility of a holistic biology for holistic medicine. Here, too, the biological information is processed on the quantum level. On this level there is an energy which functions as a bridge concept between biological information and consciousness. Quantum entanglement is also of use here: it can help to explain healing effects on the personal and inter-personal level, which cannot be grasped in terms of classical physics.⁸¹ Here, holism is a bridge concept that makes it possible to plausibilize the vertical transfers characteristic of secularism by not regarding them as a transfer, but stylizing them as a uniform explanation. The use of labels such as 'para'psychological or 'spiritual' is regarded as inappropriate because they reintroduce—even if only implicitly—a dualism that separates science and spirituality, where really there is only a holistic continuum. Such rhetorical and conceptual bridges are a central characteristic of

⁷⁷⁾ Treugut, "Energy Standortbestimmung," 13.

⁷⁸⁾ Bösch, "Grundlagen II," 537. See also Walach, "Licht," 74.

⁷⁹⁾ Gary E. Schwartz, "World Hypotheses and the Evolution of Integrative Medicine: Combining Categorical Diagnoses and Cause-effect Interventions with Whole Systems Research and Nonvisualizable (Seemingly 'Impossible') Healing," Explore: The Journal of Science and Healing 2.6 (2006), 509–514.

⁸⁰⁾ Sören Ventegodt, T.D. Hermansen, M.L. Nieslen, B. Clausen, J. Merrick, "Human Development II: We Need an Integrated Theory for Matter, Life, and Consciousness to Understand Life and Healing," *Scientific World Journal* 6.6 (2006), 760–766.

⁸¹⁾ Michael E. Hyland, "Does a Form of 'Entanglement' Between People Explain Healing? An Examination of Hypotheses and Methodology," *Complementary Therapies in Medicine* 12.4 (2004), 198–208.

the secularist interpretations of spiritual healing, which we have analyzed so far. However, on the edge of this discursive field, positions can be found that evade questions about the ontological and theoretical principles of spiritual healing, together with the associated epistemological problems. They opt out of a categorical boundary work and adopt a pragmatic point of view, which departs from the demand side: irrespective of whether they are the medicine of the future or just spiritualized appropriations of science, alternative and complementary healing practices are already firmly integrated in the range of products offered on the healing market and are in demand by a considerable proportion of patients. And since there are scientific studies that have proven the effectiveness of certain non-invasive, alternative practices (mostly therapeutic touch), it is argued that these effective forms of therapy should be integrated, at least as complementary therapies, in research, training, and practice, even if the exact mechanisms of effectiveness cannot be explained satisfactorily in terms of common biomedical standards.82

2.5. Self-regulation, Information, and Self-healing Powers

In addition to the aforementioned nodes, important concepts in this new secularist formation are self-regulation, information, and self-healing powers. Self-regulation⁸³ or self-steering is a key term in body-psychotherapy, new humanistic psychology, neo-Reichian therapy, and systemic psychology. The regulation of affects, removal of emotional blockages, reduction of overwhelming feelings, and confrontation with suppressed feelings are of

⁸²⁾ Joanne Stephen, Gina Mackenzie, Sarah Sample, and Jennifer Macdonald, "Twenty Years of Therapeutic Touch in a Canadian Cancer Agency: Lessons Learned from a Case Study of Integrative Oncology Practice," *Supportive Care in Cancer* 15 (2007), 993–998; Diana L. Woods, Cornelia Beck, and Karabi Sinha, "The Effect of Therapeutic Touch on Behavioral Symptoms and Cortisol in Persons with Dementia," *Forschende Komplementärmedizin und Klassische Naturheilkunde* 16 (2009), 181–189; Miriam S. Wetzel, Ted J. Kaptchuk, Aviad Haramati, and David M. Eisenberg, "Complementary and Alternative Medical Therapies: Implications for Medical Education," *Annals of Internal Medicine* 138 (2003), 191.

⁸³⁾ The high level of current interest in this concept is reflected for instance in the program of the conference on "Selbstregulation. Körper. Gefühl. Denken" held in 2007 by the *Deutsche Gesellschaft für Körperpsychotherapie* (together with corresponding Austrian and Swiss associations) at the Freie Universität Berlin.

central importance for achieving self-regulation.84 Discursive strategies behind them, like popularized psychosomatics on the one hand and the belief in therapeutic feasibility on the other hand remain to be uncovered by a more detailed analysis. These practices and their conceptual and discursive strategies are all reflected in the religious field, for instance in the concept of rebalancing, or neurolinguistic programming (NLP), which also emphasizes the embodiment of feelings. They are illuminating in respect to practices that have been developed by scholars of religion for studying contemporary spirituality or secularism since the 1970s. The ideational realization of embodied feelings and behavior patterns, acceptance of them, and psychic reorganization as a better form of self-reorganization are the three main steps common to this bundle of therapies. Reference to blockages and harmful behavior patterns is also frequently found in the context of spiritual healing. In recent years, ways of channeling mindfulness, popularized forms of Buddhist meditation (acceptance and mindfulness-based approaches), have been linked to the step of ideational realization.85

The significance of the concept of information goes back to the cybernetics of the post-war period and the turn in communication theory. Patrick Eitler speaks of a "cybernetization" of religion, with reference to the specific appropriation of the natural and information sciences within the New Age.⁸⁶ We have shown to what extent the concept of information generates plausibility, since further questions or an existing need for coherent explanation can be cut short through notions like 'information flows.' Concepts like emergence introduce ideas of complexity that supposedly exceed the limits of 'classical' explanations and plausibilize them rhetorically, using terminologies from cybernetics or non-linear system theory and chaos theory.

⁸⁴⁾ Sander L. Koole, Michael E. McCullough, Julius Kuhl, and Peter H.M.P. Roelofsma, "Why Religion's Burdens are Light: From Religiosity to Implicit Self-Regulation." *Personality and Social Psychology Review* 14.1 (2010), 95–107.

⁸⁵⁾ Liane Hoffmann and Harald Walach, "Spirituality and Religiosity in Psychotherapy: A Representative Survey Among German Psychotherapists," *Psychotherapy Research* 21.2 (2011), 179–192.

⁸⁶⁾ Pascal Eitler, "Körper – Kosmos – Kybernetik: Transformationen der Religion im 'New Age' (Westdeutschland 1970 – 1990)." *Zeithistorische Forschungen* 4 (2007) (online edition: URL: http://www.zeithistorischeforschungen.de/site/40208753/default.aspx, accessed 16 June 2012).

Another important field of discursive interaction has a psychosomatic framework: the area of self-healing powers, stabilization of the immune system, or the body's powers of resistance. This discourse has the important function of introducing causality to explanations of effectiveness, and creating a link between psychic and physical laws. In the literature there is a further division of the field into energy medicine in the broadest sense and medical placebo research. Placebo research relies on studies relating to theories of learning, immunology, and endocrinology, and increasingly also ritual theory.87 The strategies and propositional formations mentioned here are only a few examples; there are many others. For instance, Michael Utsch,88 a psychologist of religion, has explained the attractiveness of "energy medicine" in terms of the control which it allows: it relies on an idea of the body which enables individuals to regulate their bodies and their health self-dependently by means of technical practices.

3. Conclusion: Discursive Strategies in the Field of Spiritual Healing

The article started with the observation that discursive elements similar to and partly originating from New Age science are used more or less openly in reputed scholarly, medical literature on spiritual healing. We have attempted to differentiate this finding. The models used in discourses on spiritual healing are not just those known from European religious history, nor only those developed in the latest New Age science. New Age science is attractive because it offers its recipients an alternative conception of science.⁸⁹ It must be said, however, that in New Age science, quantum healing, for instance, does not figure as prominently as it does in the academic literature analyzed in this article and thus the central concepts and models of quantum healing are less thoroughly developed.⁹⁰ We attribute it therefore

⁸⁷⁾ See for example Jeff Levin, "How Faith Heals: A Theoretical Model" *Explore* 5.2 (2009), 77–96; Ted Kaptschuk, "Placebo Studies and Ritual Theory: A Comparative Analysis of Navajo, Acupuncture, and Biomedical Healing," *Philosophical Transactions of the Royal Society B Biological Sciences* 366 (2011), 1849–1858.

⁸⁸⁾ Michael Utsch, "Postmoderne Heilung durch Energiemedizin: Technische Kontrolle über den feinstofflichen Körper," *EZW – Materialdienst* 6 (2003), 219–223.

⁸⁹⁾ Stefan Rademacher, *Das Wissenschaftsbild in der Esoterik-Kultur* (Universität Bern, 2010) (open access: URL: http://www.zb.unibe.ch/download/eldiss/10rademacher_s.pdf, accessed 12 June 2012).

⁹⁰⁾ Rademacher, Wissenschaftsbild, 79-80.

to an independent secularist discourse on spiritual healing based on high quality research among natural sciences. Thus, the discourse on spiritual healing in scholarly journals can be seen as a vertical transfer between different societal subsystems, including non-esoteric, health care, academic, and scientific systems, which have produced a new and specific type of secularism that spans all these subareas. Our aim is not so much to draw a distinction between esoteric "scientism" or "secularized esotericism" and academic "science." Our aim is to reveal a secularism that is not as clearly recognizable as New Age science, that has been mythologically elevated in science through a new cosmology and that has been linked to spirituality.

Shifts in discourse borders, ruptures, or the creation of inbetween discourses which separate themselves from the field, isolate themselves, and pass into a new, differentiating and increasingly, or at least temporarily, institutionalizing field, are common in the history of religion. Through the popularization of science and medicine, or through scientists and medical specialists themselves, an ideological reservoir is created for other social spheres, from which actors may take whatever they need. In some cases this simply means that more modern names, be they 'scientific' or 'Asian,' are applied to existing cultural models. For instance, in our context, 'emergence' could be considered as a new edition of the esoteric analogy of micro cosmos and macro cosmos, which are being based on a subtle continuum. But some new secularist formations may also react to new kinds of social problems, for instance by balancing new technologies and changed conditions of life such as higher levels of education, greater life expectancy, and consumption habits. Under such circumstances it might not be religious institutions or an expressly religious language that create social pertinence and plausibility but rather discursive elements like the ones described above. Emergence, quantum physics, and physicalism are examples of vertical transfers between the societal subareas of science, medicine, and religion. In combination with other discursive nodes, which might draw on completely different discourses, they can bind together a new figuration.93

⁹¹⁾ Hammer, Claiming, 206.

⁹²⁾ Hanegraaff, New Age Religion, 520.

⁹³⁾ Olav Hammer and Kocku von Stuckrad, "Introduction: Western Esotericism and Polemics," in ibid. (eds.): *Polemical Encounters: Esoteric Discourse and its Others* (Leiden: Brill, 2007), vi–xxii.

This does not mean that it is the function of religion or secularism to bind milieus together in the sense of a sacred canopy. Rather, the starting point is the observation that there is an integrating discourse, which draws on overarching models, conceptual bridges, and rhetoric imagery originating from vertical transfers. To analyze such a discursive integration was the objective of this article. The literature we have analyzed shows very clearly how a part of the discourse on spiritual healing is secularist, in other words it is not religious according to its own image of itself, or is explicitly close to the terminology of a local religious tradition. And yet, as we have seen, secularism distinguishes itself from that part of the literature that argues medically, and keeps itself within the historically formed barriers of scientific rationality. Secularism in medical discourses on spiritual healing is thus an option in terms of the possibilities for vertical transfer in European religious history referred to at the beginning of this article.

References

- Asad, Talal, Formations of the Secular: Christianity, Islam, Modernity (Stanford: Stanford University Press, 2003).
- Atmanspacher, Harald, "Erkenntnistheoretische Aspekte physikalischer Vorstellungen von Ganzheit" Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie 38 (1996), 20–45.
- Bengston, William F. and Margaret Moga, "Resonance, Placebo Effects, and Type II Errors: Some Implications from Healing Research for experimental Methods," *Journal of Alternative and Complementary Medicine* 13 (2007), 317–327.
- Bösch, Jakob, "Einsichten in die Heilkraft des Geistes," in A. Reiter and A. Bucher (eds.), *Psychologie Spiritualität: Interdisziplinär* (Eschborn bei Frankfurt/M.: Klotz, 2008), 247–259.
- Spirituelles Heilen und Schulmedizin: Eine Wissenschaft am Neuanfang, fourth edn. (Bern: Lokwort Buchverlag, 2004).
- "Wissenschaftliche Grundlagen des geistig-energetischen Heilens: Teil 1," Schweizerisches Medizin-Forum 21 (2002), 511–516.
- —— "Wissenschaftliche Grundlagen des geistig-energetischen Heilens: Teil 2," Schweizerisches Medizin-Forum 22 (2002), 533–538.
- Cole-Turner, Ronald, "Biotechnology and the Religion-Science-Discussion," in P. Clayton and Z. Simpson (eds.), *The Oxford Handbook of Religion and Science* (Oxford: Oxford University Press, 2006), 929–944.
- Eitler, Pascal, "Körper Kosmos Kybernetik: Transformationen der Religion im 'New Age' (Westdeutschland 1970 1990)" *Zeithistorische Forschungen* 4 (2007) (online edition: URL: http://www.zeithistorische
 - forschungen.de/site/40208753/default.aspx, accessed 16 June 2012).

- Foucault, Michel, *Archäologie des Wissens*, twelfth reprint (Frankfurt am Main: Suhrkamp, 2005).
- —— Der Wille zum Wissen, Sexualität und Wahrheit, vol. 1, seventeenth reprint (Frankfurt am Main: Suhrkamp, 2008).
- Fuller, Robert C., Americans and the Unconscious (New York & Oxford: Oxford University Press, 1986).
- *Mesmerism and the American Cure of Souls* (Philadelphia: University of Pennsylvania Press, 1982).
- Gladigow, Burkhard, "Europäische Religionsgeschichte," in H. G. Kippenberg and B. Luchesi (eds.), *Lokale Religionsgeschichte* (Marburg: Diagonal-Verlag, 1995), 21–42.
- "Europäische Religionsgeschichte der Neuzeit," in H. G. Kippenberg, J. Rüpke, and K. von Stuckrad (eds.), Europäische Religionsgeschichte: Ein mehrfacher Pluralismus, UTB Theologie, Religion, Geschichte (Göttingen: Vandenhoeck & Ruprecht, 2009), 15–38.
- "Naturwissenschaftliche Modellvorstellungen in der Religionswissenschaft zwischen den Weltkriegen," in H. G. Kippenberg and B. Luchesi (eds.), Religionswissenschaft und Kulturkritik: Beiträge zur Konferenz The History of Religions and Critique of Culture in the Days of Gerardus van der Leeuw (1890–1950); [Groningen 1–3 May 1989] (Marburg: Diagonal-Verlag, 1991), 177–192.
- —— "Pantheismus und Naturmystik," in R. Bubner, B. Gladigow, and W. Haug (eds.), *Die Trennung von Natur und Geist* (Munich: Fink, 1990), 119–144.
- "'Religion' als Gegenstand unterschiedlicher Wissenschaften: Biologie, Verhaltenswissenschaften, Kulturwissenschaften," in K. Grötzinger, B. Gladigow, and H. Zinser (eds.), Religion in der schulischen Bildung und Erziehung: LER – Ethik – Werte und Normen in einer pluralen Gesellschaft (Berlin: Verlag Arno Spitz, 1999), 3-49.
- "Religion im Rahmen der theoretischen Biologie," in B. Gladigow and H. G. Kippenberg (eds.), *Neue Ansätze in der Religionswissenschaft*, Forum Religionswissenschaft (Munich: Kösel, 1983), 97–112.
- —— "'Wir gläubigen Physiker': Zur Religionsgeschichte physikalischer Entwicklung im 20. Jahrhundert," in H. Zinser (ed.), *Der Untergang von Religionen* (Berlin: Reimer, 1986), 158–168.
- Grieser, Alexandra, "Perspektivität als Arbeitsform: Ein Beitrag der Religionswissenschaft zur Bearbeitung komplexer Gegenstände, zur Plausibilität von Religion und Wissenschaft und den Rhetoriken der Genetik," in T. Meier and P. Tillessen (eds.), Über die Grenzen und zwischen den Disziplinen. Fächerübergreifende Zusammenarbeit im Forschungsfeld historischer Mensch-Umwelt-Beziehungen (Budapest: Archaeolingua, 2011), 159–178.
- Hammer, Olav, Claiming Knowledge: Strategies of Epistemology from Theosophy to the New Age (Leiden: Brill, 2004).
- Hammer, Olav and Kocku von Stuckrad, "Introduction: Western Esotericism and Polemics," in ibid. (eds.), *Polemical Encounters: Esoteric Discourse and its Others* (Leiden: Brill, 2007), vi–xxii.
- Hanegraaff, Wouter J., New Age Religion and Western Culture: Esotericism in the Mirror of Secular Thought, SUNY series (Albany, NY: State University of New York Press, 1998).
- Harrington, Anne, Reenchanted Science: Holism in German Culture: From Wilhelm II to Hitler (Princeton, NJ: Princeton University Press, 1996).
- Heelas, Paul, The New Age Movement: The Celebration of the Self and the Sacralization of Modernity, Repr. (Oxford: Blackwell, 1997).

- Hoffmann, Liane and Harald Walach, "Spirituality and Religiosity in Psychotherapy: A Representative Survey Among German Psychotherapists," Psychotherapy Research 21.2 (2011), 179–192.
- Hyland, Michael E., "Does a Form of 'Entanglement' Between People Explain Healing? An Examination of Hypotheses and Methodology," *Complementary Therapies in Medicine* 12.4 (2004), 198–208.
- Jonas, Wayne B. and Ronald A. Chez, "Recommendations Regarding Definitions and Standards in Healing Research," *Journal of Alternative and Complementary Medicine* 10 (2004), 171–181.
- Kaptschuk, Ted J., "Placebo Studies and Ritual Theory: A Comparative Analysis of Navajo, Acupuncture, and Biomedical healing," *Philosophical Transactions of the Royal Society B Biological Sciences* 366 (2011), 1849–1858.
- Kippenberg, Hans G., "Rivalität in der Religionswissenschaft: Religionsphänomenologen und Religionssoziologen als kulturkritische Konkurrenten," Zeitschrift für Religionswissenschaft 2 (1994), 69–89.
- Koch, Anne, "Reasons for the Boom of Body Discourses in Humanities and Social Sciences: A Chapter in European History of Religion," in Angelika Berlejung, J. Quack, and J. Dietrich (eds.), *Menschenbilder und Körperkonzepte* (ORA, Oriental Religions in Antiquity 1) (Tübingen: Mohr, 2012), 3-42.
- Koole, Sander L., Michael E. McCullough, Julius Kuhl, and Peter H.M.P. Roelofsma, "Why Religion's Burdens Are Light: From Religiosity to Implicit Self-Regulation," *Personality and Social Psychology Review* 14.1 (2010), 95–107.
- Koopman, Barbara G. and Richard A. Blasband, "Two Case Reports of Distant Healing: New Paradigms at Work?," *Alternative Therapies* 8 (2002), 120–119.
- Leezenberg, Michiel, "How Ethnocentric is the Concept of the Postsecular?," in Justin Beaumont, Christoph Jedan, and Arie Molendijk (eds.), *Exploring the Postsecular: The Religious, the Political, and the Urban* (Leiden & Boston: Brill, 2010), 91–112.
- Levin, Jeff, "How Faith Heals: A Theoretical Model," *Explore: The Journal of Science and Healing* 5.2 (2009), 77–96.
- McDonough-Means, Sharon I., Mary Jo Kreitzer, and Iris R. Bell, "Fostering a Healing Presence and Investigating its Mediators," *Journal of Alternative and Complementary Medicine* 10 (2004), 25–41.
- Oschman, James L., Energiemedizin: Konzepte und ihre wissenschaftliche Begründung (Munich: Elsevier, Urban, & Fischer, 2006).
- Rademacher, Stefan, *Das Wissenschaftsbild in der Esoterik-Kultur* (Universität Bern, 2010) (open access: URL: http://www.zb.unibe.ch/download/eldiss/10rademacher_s.pdf, accessed 12 June 2012).
- Rubik, Beverly, "The Biofield Hypothesis: Its Biophysical Basis and Role in Medicine," *Journal of Alternative and Complementary Medicine* 8 (2002), 703–717.
- Russell, Robert J., "Quantum Physics and the Theology of Non-Interventionist Objective Divine Action," in P. Clayton and Z. Simpson (eds.), *The Oxford Handbook of Religion and Science* (Oxford: Oxford University Press, 2006), 579–595.
- Ruyer, Raymond, *La Gnose de Princeton: Des Savants à la Recherche d'une Religion*, Evolutions (Paris: Fayard, 1975).
- Schwartz, Gary E., "World Hypotheses and the Evolution of Integrative Medicine: Combining Categorical Diagnoses and Cause-effect Interventions with Whole Systems Research and

- Nonvisualizable (Seemingly 'Impossible') Healing," *Explore: The Journal of Science and Healing* 2.6 (2006), 509–514.
- Stephen, Joanne, Gina Mackenzie, Sarah Sample, and Jennifer Macdonald, "Twenty Years of Therapeutic Touch in a Canadian Cancer Agency: Lessons Learned from a Case Study of Integrative Oncology Practice," *Supportive Care in Cancer* 15 (2007), 993–998.
- Treugut, Hendrik, "Energy Medicine: Eine Standortbestimmung," *Komplementäre und Integrative Medizin* 7 (2007), 10–18.
- —— "Energy Medicine und Systemtheorie," *Komplementäre und Integrative Medizin* 8 (2007), 42–46.
- Utsch, Michael, "Postmoderne Heilung durch Energiemedizin: Technische Kontrolle über den feinstofflichen Körper," *EZW Materialdienst* 6 (2003), 219–223.
- van Wijk, Roeland and Eduard P. van Wijk, "Effect of Meditation on Ultraweak Photon Emission from Hands and Forehead," *Forschende Komplementärmedizin und Klassische Naturheilkunde* 12 (2005), 107–112.
- —— "An Introduction to Human Biophoton Emission," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 77–83.
- "Multi-Site Recording and Spectral Analysis of Spontaneous Photon Emission from Human Body," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 96–106.
- Ventegodt, Sören, T.D. Hermansen, M.L. Nieslen, B. Clausen, J. Merrick, "Human Development II: We Need an Integrated Theory for Matter, Life, and Consciousness to Understand Life and Healing," *Scientific World Journal* 6.6 (2006), 760–766.
- von Stuckrad, Kocku, *Locations of Knowledge in Medieval and Early Modern Euro*pe: Esoteric Discourse and Western Identities, Brill's Studies in Intellectual History (Leiden: Brill, 2010).
- "Naturwissenschaft und Religion: Interferenzen und diskursive Transfers," in H. G. Kippenberg, J. Rüpke, and K. von Stuckrad (eds.), *Europäische Religionsgeschichte: Ein mehrfacher Pluralismus*, UTB Theologie, Religion, Geschichte (Göttingen: Vandenhoeck & Ruprecht, 2009), 441–467.
- von Trotha, Trutz, "Die Welt ist 'leidenschaftlich religiös wie zu allen Zeiten': Soziologische Anmerkungen über Fundamentalismus, Mission und Eurosäkularismus am Beginn des 21. Jahrhunderts," in G. Nollmann (ed.), Woran glauben?: Religion zwischen Kulturkampf und Sinnsuche (Essen: Klartext, 2007), 111–129.
- Walach, Harald, "Heilen durch 'Energien': Theoretische Überlegungen," in W. H. Ritter and Bernhard Wolf (eds.), Heilung, Energie, Geist: Heilung zwischen Wissenschaft Religion und Geschäft, Biblisch-theologische Schwerpunkte (Göttingen: Vandenhoeck & Ruprecht, 2005), 80–105.
- "Licht: Zwischen Materie und Energie," Forschende Komplementärmedizin und Klassische Naturheilkunde 12 (2005), 74–75.
- Weber, Max, Wirtschaft und Gesellschaft. Die Wirtschaft und die gesellschaftlichen Ordnungen und Mächte. Nachlaß, Teilband 2: Religiöse Gemeinschaften (Tübingen: Mohr-Siebeck, 2005/1922).
- Wetzel, Miriam S., Ted J. Kaptchuk, Aviad Haramati, and David M. Eisenberg, "Complementary and Alternative Medical Therapies: Implications for Medical Education," *Annals of Internal Medicine* 138 (2003), 191.
- Wolf, Bernhard, "Geistiges Heilen als Lebenshilfe zwischen Therapie und Spiritualität: Religionskulturelle Orientierungen," in W. H. Ritter and Bernhard Wolf (eds.), *Heilung*,

Energie, Geist: Heilung zwischen Wissenschaft Religion und Geschäft, Biblischtheologische Schwerpunkte (Göttingen: Vandenhoeck & Ruprecht, 2005), 126–151

Woods, Diana L., Cornelia Beck, and Karabi Sinha, "The Effect of Therapeutic Touch on Behavioral Symptoms and Cortisol in Persons with Dementia," Forschende Komplementärmedizin und Klassische Naturheilkunde 16 (2009), 181–189

Zander, Helmut, *Anthroposophie in Deutschland: Theosophische Weltanschauung und gesells- chaftliche Praxis 1884–1945*, 2 vols. (Göttingen: Vandenhoeck & Ruprecht, 2007).