



# RESEARCH REVIEW

A DIGEST OF NEW SCIENTIFIC RESEARCH  
CONCERNING RELIGION, BRAIN & BEHAVIOR

NOVEMBER, 2009

## INTRODUCTION

*IBCSR Research Review (IRR)* is published by the Institute for the Biocultural Study of Religion, a non-profit research institute dedicated to the scientific study of the biocultural aspects of religion. *IRR* briefly annotates and furnishes online information about scientific research articles related to brain, behavior, culture, and religion published in leading journals. It also lists relevant books. Articles in press are listed without annotation. Annotations for articles aim to supply a preliminary understanding of the methods and results of a research study, or the argument of a paper. Annotations typically furnish more detail for articles in the scientific study of religion related to religion, brain, and behavior, than for articles in the area of spirituality and health, in accordance with IBCSR research priorities.

Articles for this issue were located by searching the following databases: Applied Science and Technology, ASFA Biological Sciences, ATLA Religion Database, General Science, PubMed, Psychology and Behavioral Sciences Collection, PsycARTICLES, PsycINFO, ScienceDirect, and Web of Science. The search terms were altruism, cooperation, evolution, meditat\*, prayer, Qi Gong, relig\*, psych\*, science, and yoga, tailored to the database being searched. Books were located on Amazon.com, Google Books, and Worldcat. Articles not directly relevant to the scientific study of religion were excluded, as was correspondence. From a universe of 828 articles, 86 articles have been retained from 56 journals. There are 44 pre-publication citations from 32 journals.

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## PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

### 1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Lagopoulos, Jim, Jian Xu, Inge Rasmussen, Alexandra Vik, Gin S Malhi, Carl F Eliassen, Ingrid E Arntsen et al. 2009. Increased Theta and Alpha EEG Activity During Nondirective Meditation. *Journal of Alternative and Complementary Medicine* 15(11). 1187-1192.  
doi:[10.1089/acm.2009.0113](https://doi.org/10.1089/acm.2009.0113).

*In a study of changes in EEG measurements during nondirective meditation, researchers found that significantly increased theta power was found for the meditation condition when averaged across all brain regions. In addition, theta was significantly greater in the frontal and temporal-central regions as compared to the posterior region. There was also a significant increase in alpha power in the meditation condition compared to the rest condition, when averaged across all brain regions, and it was found that alpha was significantly greater in the posterior region as compared to the frontal region. The investigational paradigm involved the subjects meditating for 20 minutes (nondirective meditation), taking a 15 minute break, then sitting quietly for 20 minutes. The findings suggest that nondirective meditation techniques alter theta and alpha EEG patterns significantly more than regular relaxation.*

Tei, Shisei, Pascal L Faber, Dietrich Lehmann, Takuya Tsujiuchi, Hiroaki Kumano, Roberto D Pascual-Marqui, Lorena R R Gianotti & Kieko Kochi. 2009. Meditators and non-meditators: EEG source imaging during resting. *Brain Topography* 22(3). 158-165.  
doi:[10.1007/s10548-009-0107-4](https://doi.org/10.1007/s10548-009-0107-4).

*EEG measurements of 8 Qigong meditators (average 11 years experience) and 9 meditation-naïve controls were recorded during an eyes-closed resting state. Significant differences between groups were found only in the inhibitory delta EEG frequency band. Parts of the prefrontal cortex (BAs 9, 10, 11, 44, 45, 46, and 47) and anterior cingulate cortex (BA 32) showed inhibition (stronger delta activity) in meditators, whereas motor, somatosensory (BAs 4, 6, and 7) and visual association cortices (BAs 18 and 19), left superior temporal gyrus, left precuneus (BA 31), left temporo-parietal junction (BA 22, 39, 40), and bilateral fusiform gyrus (BA 30) showed stronger activation (less delta activity) compared to controls. Researchers concluded that the neuroplasticity effects of long-term meditation practice, subjectively described as increased awareness and greater detachment, are carried over into non-meditating states.*

### 1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Boyd, R. & P. J. Richerson. 2009. Culture and the evolution of human cooperation. *Philosophical Transactions of the Royal Society B: Biological Sciences* 364(1533). 3281-3288.  
doi:[10.1098/rstb.2009.0134](https://doi.org/10.1098/rstb.2009.0134).

*The authors argue that cultural adaptation is a key factor in the psychological changes required to support the larger, more cooperative societies of modern humans versus our ancestors. Over the last million years, people have evolved the ability to learn from each other, creating the possibility of cumulative, cultural evolution. Rapid cultural adaptation also leads to persistent differences between local social groups, and then competition between groups leads to the spread of behaviors that enhance their competitive ability. In such culturally evolved cooperative social environments, natural selection within groups favored genes that gave rise to new, more pro-social motives. Moral systems enforced by systems of sanctions and rewards increased the reproductive success of individuals who functioned well in such environments, and this in turn led to the evolution of other regarding motives like empathy and social emotions like shame. A contribution to a special issue, "The Evolution of Society."*

- Burkart, J. M., S. B. Hrdy & C. P. Van Schaik. 2009. Cooperative breeding and human cognitive evolution. *Evolutionary Anthropology: Issues, News, and Reviews* 18(5). 175-186.  
doi:[10.1002/evan.20222](https://doi.org/10.1002/evan.20222).

*The writers propose that the cognitive results of human cooperative breeding (a practice markedly different from other great apes) could have become more pervasive in the human lineage because psychological changes were added to an ape-level cognitive system capable of understanding simple mental states, albeit mainly in competitive contexts. They hypothesize that, while chimpanzees and perhaps all great apes exhibit many of the important cognitive preconditions for uniquely human mental capacities to evolve, they lack the psychological preconditions. In humans, the two components merged, the cognitive component due to common descent from ape ancestors, and the motivational component due to convergent evolution of traits typical of many cooperative breeders.*

- Hauser, Marc, Katherine McAuliffe & Peter R Blake. 2009. Evolving the ingredients for reciprocity and spite. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 364(1533). 3255-3266.  
doi:[10.1098/rstb.2009.0116](https://doi.org/10.1098/rstb.2009.0116).

*For the last 30 years, kinship theories have been supported by considerable empirical data, and elaborated to explore a number of other social interactions such as cooperation, selfishness and punishment. However, two forms of theoretically possible social interactions – reciprocity and spite – appear absent or nearly so in non-human vertebrates, despite considerable research efforts on a wide diversity of species. The authors suggest that the rather weak comparative evidence for these interactions is predicted once requisite socioecological pressures and psychological mechanisms are considered. A consideration of ultimate demands and proximate prerequisites leads to the prediction that reciprocity and spite should be rare in non-human animals, and common in humans. The authors hypothesize that reciprocity and spite evolved in humans because of adaptive demands on cooperation among unrelated individuals living in large groups, and the integrative capacities of inequity detection, future-oriented decision-making and inhibitory control. A contribution to a special issue, “The Evolution of Society.”*

- Melis, Alicia P., Brian Hare & Michael Tomasello. 2009. Chimpanzees coordinate in a negotiation game. *Evolution and Human Behavior* 30(6). 381-392.  
doi:[10.1016/j.evolhumbehav.2009.05.003](https://doi.org/10.1016/j.evolhumbehav.2009.05.003).

*Researchers presented pairs of chimpanzees with a choice between two cooperative tasks – one with equal payoffs (e.g., 5-5) and one with unequal payoffs (e.g., 10-1). This created a conflict of interests between partners, with failure to work together on the same cooperative task resulting in no payoff for either partner. The chimpanzee pairs cooperated successfully in as many as 78-94% of the trials across experiments. Even though dominant chimpanzees preferred the unequal option (as they would obtain the largest payoff), subordinate chimpanzees were able to get their way (the equal option) in 22-56% of trials across conditions. Analysis showed that subjects were strategic, and cognizant of the strategies used by their partners. These results demonstrate that one of our two closest primate relatives, the chimpanzee, can settle conflicts of interest over resources in mutually satisfying ways, even without the social norms of equity, planned strategies of reciprocity, and the complex communication characteristic of human negotiation.*

- Nadler, Arie, Gal Harpaz-Gorodeisky & Yael Ben-David. 2009. Defensive helping: Threat to group identity, ingroup identification, status stability, and common group identity as determinants of intergroup help-giving. *Journal of Personality and Social Psychology* 97(5). 823-834.  
doi:[10.1037/a0015968](https://doi.org/10.1037/a0015968).

*In a study of 255 Israeli high school students (130 boys and 125 girls) ages 16–18, the authors demonstrated that high ingroup identifiers thwart a threat to group identity through defensive help-giving (i.e., by extending help to an outgroup member whose achievements jeopardize their status). Priming for common ingroup identity reversed*

*this pattern, with participants electing to offer autonomy-oriented rather than defensive help. Further research justified the extension of the phenomenon of defensive helping to relations between high- and low-status groups, showing that members of a high-status group who perceive status relations with the low-status outgroup as unstable will protect the ingroup's identity by providing dependency-oriented help to the low-status outgroup.*

- Pelé, Marie, Valérie Dufour, Bernard Thierry & Josep Call. 2009. Token transfers among great apes (Gorilla gorilla, Pongo pygmaeus, Pan paniscus, and Pan troglodytes): Species differences, gestural requests, and reciprocal exchange. *Journal of Comparative Psychology* 123(4). 375-384.  
doi:[10.1037/a0017253](https://doi.org/10.1037/a0017253).

*Researchers tested gorillas (Gorilla gorilla), orangutans (Pongo pygmaeus), bonobos (Pan paniscus), and chimpanzees (Pan troglodytes) in a token-exchange task involving two conspecifics and a human experimenter. Tested in pairs, subjects had to exchange tokens with a partner to obtain food from the experimenter. The authors observed 4, 5, 264, and 328 transfers of tokens in gorillas, chimpanzees, orangutans, and bonobos, respectively. Most gifts were indirect in gorillas, chimpanzees, and bonobos, whereas most were direct in orangutans. The analysis showed no evidence of calculated reciprocity in interactions. A main finding of the study was the high rate of repeated gifts and begging gestures recorded in orangutans. This raises the question of the meaning of pointing in great apes and their ability to understand the communicative intent of others.*

- Ratnieks, Francis L W & Heikki Helanterä. 2009. The evolution of extreme altruism and inequality in insect societies. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 364(1533). 3169-3179.  
doi:[10.1098/rstb.2009.0129](https://doi.org/10.1098/rstb.2009.0129).

*The authors hypothesize that extreme altruism is due to both kinship and coercion, using the examples of honeybees (Apis mellifera). In eusocial organisms, some individuals specialize in reproduction and others in altruistic helping. The evolution of eusociality is, therefore, also the evolution of remarkable inequality. To understand how these relationship evolved, researchers used phylogenetic analyses to show that high relatedness was almost certainly necessary for the origin of eusociality, though "enforced altruism," (i.e., social pressures that deter individuals from attempting to reproduce) is also needed. This coercion acts at two stages in the life cycle: larvae can be coerced into developing into workers by being given less food, and workers are coerced into working by 'policing', in which workers or the queen eat worker-laid eggs or aggress fertile workers. Because individuals gain inclusive fitness by rearing relatives, there is a strong incentive to "acquiesce" to social coercion. A contribution to a special issue, "The Evolution of Society."*

- Silk, Joan B. 2009. Nepotistic cooperation in non-human primate groups. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 364(1533). 3243-3254.  
doi:[10.1098/rstb.2009.0118](https://doi.org/10.1098/rstb.2009.0118).

*Although kin selection predicts that altruism will be biased in favor of relatives, it is difficult to assess whether primates actually conform to predictions derived from Hamilton's rule:  $BR > C$  (where altruists realize a net gain in fitness). In addition, other mechanisms, including contingent reciprocity and mutualism, could contribute to the nepotistic biases observed in non-human primate groups. There are good reasons to suspect that these processes may complement the effects of kin selection and amplify the extent of nepotistic biases in behavior. A contribution to a special issue, "The Evolution of Society."*

### **1.3 SCIENTIFIC STUDY OF RELIGION: GENERAL PSYCHOLOGY**

- Agrawal, Arpana & Michael T Lynskey. 2009. Correlates of later-onset cannabis use in the National Epidemiological Survey on Alcohol and Related Conditions (NESARC). *Drug and Alcohol Dependence* 105(1-2). 71-75.

doi:[10.1016/j.drugalcdep.2009.06.017](https://doi.org/10.1016/j.drugalcdep.2009.06.017).

*Using data on 34,653 individuals that participated in both the first wave and the 3-year follow-up (3YFU) of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), it was found that of the 27,467 lifetime abstainers at Wave 1, 509 had initiated cannabis use at the 3YFU. Religious attendance and participation in volunteer/community service were associated with a lower likelihood of cannabis initiation, while experiencing divorce during the 3YFU was associated with an increased likelihood of cannabis initiation.*

Frimer, Jeremy A. & Lawrence J. Walker. 2009. Reconciling the self and morality: An empirical model of moral centrality development. *Developmental Psychology* 45(6). 1669-1681.

doi:[10.1037/a0017418](https://doi.org/10.1037/a0017418).

*In a study of 97 university students who responded to a self-understanding interview and to several measures of morally relevant behaviors, results indicated that communal values (centered on concerns for others) positively predicted, and agentic (self-interested) values negatively predicted, moral behavior. At the same time, the tendency to coordinate both agentic and communal values within narrative thought segments positively predicted moral behavior, indicating that the 2 motives can be adaptively reconciled.*

Greene, Beverly. 2009. The use and abuse of religious beliefs in dividing and conquering between socially marginalized groups: The same-sex marriage debate. *The American Psychologist* 64(8). 698-709.

doi:[10.1037/0003-066X.64.8.698](https://doi.org/10.1037/0003-066X.64.8.698).

*This article discusses the use and abuse of religious beliefs and their role in divide-and-conquer strategies. For African Americans, one form of marginalization was reflected in criminalizing interracial marriage, and for members of sexual minority groups, a form of marginalization is denying group members the right to marry. The author explores culturally competent and respectful disciplinary and clinical responses to religiously derived prejudice against sexual minority group members and people of color and discusses the implications for multicultural discourse.*

Njus, David M & Cynthia M H Bane. 2009. Religious identification as a moderator of evolved sexual strategies of men and women. *Journal of Sex Research* 46(6). 546-557.

doi:[10.1080/00224490902867855](https://doi.org/10.1080/00224490902867855).

*In one study of 219 college students, religiosity moderated sex differences in some mating preferences: high-religiosity men had less desire for a short-term mate than did low-religiosity men, whereas no such difference existed for high- and low-religiosity women. In a second study of 234 college students, intrinsic religiosity (religion as a valuable end in itself), but not extrinsic (religion as a means to an end) or quest (religion as a means of questioning and doubting), moderated sex differences in mating attitudes, especially attitudes regarding number of sexual partners in the short term: high-religiosity men had less desire for a short-term mate than did low-religiosity men, whereas no such significant difference existed for high- and low-religiosity women.*

Paul, G. 2009. The Chronic Dependence of Popular Religiosity upon Dysfunctional Psychosociological Conditions. *Evolutionary Psychology* 7(3). 398-441.

[www.epjournal.net/filestore/EP073984414.pdf](http://www.epjournal.net/filestore/EP073984414.pdf)

*Using the Successful Societies Scale with 1<sup>st</sup> world countries (per capita income  $\geq$  \$23,000; population  $\geq$  4 million), the author found that population diversity and immigration correlate weakly with socioeconomic conditions, and high levels of income disparity, popular religiosity as measured by differing levels of belief and activity, and rejection of evolutionary science, correlate strongly negatively with improving conditions. The nonuniversality of strong religious devotion, and the ease with which large populations abandon serious theism when conditions are sufficiently benign, refute hypotheses that religious belief and practice are the normal, deeply set human mental state, whether they are superficial or natural in nature.*

Rosik, Christopher H. & Linda L. Smith. 2009. Perceptions of religiously based discrimination among Christian students in secular and Christian university settings. *Psychology of Religion and Spirituality* 1(4). 207-217.

doi:[10.1037/a0017076](https://doi.org/10.1037/a0017076).

*Using a modified version of Herek's Sexual Orientation Survey, researchers found that conservative Christian participants attending a secular university (N = 96) did not report experiencing higher levels of actual discrimination and prejudice than respondents attending a Christian university (N = 96), with one exception: being discriminated against by university faculty. Symptoms of depression and anxiety were not related to perceptions of religiously based prejudice among participants.*

Smith, L., S. Riley & E. R. Peters. 2009. Schizotypy, delusional ideation and well-being in an American new religious movement population. *Clinical Psychology & Psychotherapy* 16(6). 479-484.

doi:[10.1002/cpp.645](https://doi.org/10.1002/cpp.645).

*A sample of American Hare Krishna devotees (12 women, 8 men, mean age = 33.7) was compared with a non-religious control group (12 women, 8 men, mean age = 28.3) on measures of delusional ideation, schizotypy and general well-being. The Hare Krishna group scored significantly higher than the control group on delusional ideation, but not other aspects of schizotypy or general well-being. They also scored higher on delusional conviction, but not distress and preoccupation. The findings provide cross-cultural confirmation for the notion of a continuum between normality and delusional thinking, and the need to consider delusional beliefs as multi-dimensional: psychological health seems to be predicated not on what one believes, but how one believes it.*

#### **1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY**

Culotta, Elizabeth. 2009. On the Origin of Religion. *Science* 326(5954). 784-787.

*The author presents an overview of the consensus among scientists regarding how religion arose, such as the benefits of cooperative behavior that religion effects in a society, when religious beliefs began, and the psychology of religion, including an emerging cognitive model of religion. Part of the journal's monthly series on evolutionary origins.*

Fingelkurts, Alexander A & Andrew A Fingelkurts. 2009. Is our brain hardwired to produce God, or is our brain hardwired to perceive God? A systematic review on the role of the brain in mediating religious experience. *Cognitive Processing* 10(4). 293-326.

doi:[10.1007/s10339-009-0261-3](https://doi.org/10.1007/s10339-009-0261-3).

*This article presents a systematic critical review of the positions, arguments and controversies about whether the human brain is structured so as to produce God (as a product of other cognitive processes), or structured so as to perceive the presence of God. They suggest a non-physical causation in which mental agency is not reducible to brain processes, and does exert "downward causation" on brain plasticity. In addition, the role of cognitive processes involved in religious experience is discussed, and the authors outline what neuroscience can offer the study of religious experience.*

Northoff, Georg. 2009. What is neuroethics? Empirical and theoretical neuroethics. *Current Opinion in Psychiatry* 22(6). 565-569.

doi:[10.1097/YCO.0b013e32832e088b](https://doi.org/10.1097/YCO.0b013e32832e088b).

*The review focuses on informed consent and moral judgment as examples of empirical neuroethics and norm-fact circularity and method-based neuroethics as issues of a theoretical neuroethics. The author argues for consideration of theoretical and methodological issues in order to develop neuroethics as a distinct discipline, which as such can be distinguished from both philosophy/ethics and neuroscience.*

Woody, William Douglas. 2009. Use of cult in the teaching of psychology of religion and spirituality. *Psychology of Religion and Spirituality* 1(4). 218-232.  
doi:[10.1037/a0016730](https://doi.org/10.1037/a0016730).

*The author raises the issue of the definition of "cult," which varies across fields. Distinctions between cults and other groups are differences of degree and often rest on a group's size, the unusualness of its beliefs, the outcomes of its actions, and the perceived role of its leader. Use of cult by teachers of psychology suggests that cults are categorically distinct from other groups and brings negative connotations to cults, their members, and former members.*

## PART 2. ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

### 2.1 SPIRITUALITY & HEALTH: MEDICAL CONDITIONS

Coleman, Christopher Lance & Katherine Ball. 2009. Predictors of self-efficacy to use condoms among seropositive middle-aged African American men. *Western Journal of Nursing Research* 31(7). 889-904.

doi:[10.1177/0193945909339895](https://doi.org/10.1177/0193945909339895).

*Condom use during sexual encounters continues to be a challenge for seropositive individuals. The influence of personal characteristics, AIDS knowledge, and religious well-being on perceived self-efficacy to use condoms was examined in a convenience nonprobabilistic sample of 130 middle-aged seropositive African American men from the Mid-Atlantic region. AIDS knowledge and religious well-being are strongly related to self-efficacy to use condoms. These findings indicate that it is critical to explore further the relationship of AIDS knowledge and religious well-being with self-efficacy to use condoms.*

Delaney, Colleen & Cynthia Barrere. 2009. Ecospirituality: the experience of environmental meditation in patients with cardiovascular disease. *Holistic Nursing Practice* 23(6). 361-369.

doi:[10.1097/HNP.0b013e3181bf381c](https://doi.org/10.1097/HNP.0b013e3181bf381c).

*For this phenomenological study, 6 women and 2 men, with ages ranging from 42 to 64 years and a mean age of 57 years, participated in a spirituality-based meditation intervention that focused on ecospirituality. The findings of this study provide beginning support for holistic nurses and other healthcare professionals to integrate the use of ecospirituality meditation into their care of patients with cardiovascular disease, and lay the groundwork for further exploration of the spiritual dimension of person and environment.*

Elomaa, Minna M., Amanda C. de C. Williams & Eija A. Kalso. 2009. Attention management as a treatment for chronic pain. *European Journal of Pain* 13(10). 1062-1067.

doi:[10.1016/j.ejpain.2008.12.002](https://doi.org/10.1016/j.ejpain.2008.12.002).

*This pilot study consisted of six weekly 90-min treatment sessions, based on a CBT attention management manual describing techniques such as attention diversion, imagery and mindfulness exercises. For the 31 participants who completed the course, the results at the end of treatment, and at 3-month follow-up, show significant reductions in pain-related anxiety, hypervigilance and interference of pain. Reduction in pain-related interference and anxiety remained at the 6-month follow-up.*

Gall, Terry Lynn, Manal Guirguis-Younger, Claire Charbonneau & Peggy Florack. 2009. The trajectory of religious coping across time in response to the diagnosis of breast cancer. *Psycho-Oncology* 18(11). 1165-1178.

doi:[10.1002/pon.1495](https://doi.org/10.1002/pon.1495).

*Ninety-three breast cancer patients and 160 women with a benign diagnosis participated in this study to assess their use of religious coping strategies, and their level of emotional distress and well-being, at pre-diagnosis, 1 week pre-surgery, and 1 month, 6 months, 1 year, and 2 years post-surgery. Results showed that religious coping strategies are mobilized early on in the process of adjustment to breast cancer. Breast cancer patients' use of support or comfort-related strategies peaked around surgery and then declined, while the use of strategies that reflected more a process of meaning-making remained elevated or increased into the long-term. Positive and negative forms of religious coping were predictive of concurrent distress and emotional well-being.*



Lee, Myeong Soo, Max H Pittler & Edzard Ernst. 2009. Internal qigong for pain conditions: a systematic review. *The Journal of Pain: Official Journal of the American Pain Society* 10(11). 1121-1127.e14.

doi:[10.1016/j.jpain.2009.03.009](https://doi.org/10.1016/j.jpain.2009.03.009).

*Nineteen databases were searched through February 2009 for controlled clinical trials testing the effects of internal qigong in patients with pain of any origin. Four randomized clinical trials and 3 controlled clinical trials met all inclusion criteria. The authors conclude that the existing trial evidence is not convincing enough to suggest that internal qigong is an effective modality for pain management.*

Schoenberg, Nancy E, Jennifer Hatcher, Mark B Dignan, Brent Shelton, Sherry Wright & Kaye F Dollarhide. 2009. Faith Moves Mountains: an Appalachian cervical cancer prevention program. *American Journal of Health Behavior* 33(6). 627-638.

*The authors provide a conceptual overview to key elements of "Faith Moves Mountains," a community-based participatory research program designed and implemented in collaboration with churches in rural, southeastern Kentucky, that aims to increase cervical cancer screening (Pap tests) through a multiphase process of educational programming and lay health counseling. The authors describe how FMM has recruited and retained over 400 women in 30 churches, and has become a change agent in the community.*

Smith, Nana, Alex Weymann, Francisco A. Tausk & Joel M. Gelfand. 2009. Complementary and alternative medicine for psoriasis: A qualitative review of the clinical trial literature. *Journal of the American Academy of Dermatology* 61(5). 841-856.

doi:[10.1016/j.jaad.2009.04.029](https://doi.org/10.1016/j.jaad.2009.04.029).

*The authors sought to review the clinical trial literature regarding complementary and alternative medicine for the treatment of psoriasis. They conducted a qualitative systematic review of randomized, clinical trials, but found that the results and the quality of the studies varied. They recommend that more research be done before these modalities are recommended to patients.*

Whelan-Gales, MA, MTQ Griffin, J Maloni & JJ Fitzpatrick. 2009. Spiritual Well-Being, Spiritual Practices, and Depressive Symptoms among Elderly Patients Hospitalized with Acute Heart Failure. *Geriatric Nursing* 30(5). 312-317.

doi:[10.1016/j.gerinurse.2009.04.001](https://doi.org/10.1016/j.gerinurse.2009.04.001).

*The study describes spiritual well-being and spiritual practices in 24 hospitalized older patients with Class III or IV heart failure. There was a significant negative correlation between spiritual well-being and depression: those who had more depressive symptoms had a lower level of spiritual well-being. The spiritual practices used most by the older persons were identified.*

Young, E C, C Brammer, E Owen, N Brown, J Lowe, C Johnson, R Calam, S Jones, A Woodcock & J A Smith. 2009. The effect of mindfulness meditation on cough reflex sensitivity. *Thorax* 64(11). 993-998.

doi:[10.1136/thx.2009.116723](https://doi.org/10.1136/thx.2009.116723).

*Thirty healthy subjects and 30 patients with chronic cough were studied in two sequential trials. For both studies, cough reflex sensitivity to citric acid was measured on two occasions, with urge to cough rated following each inhalation; between challenges, subjects were randomized to (1) no intervention, (2) mindfulness or (3) no intervention but modified cough challenge (subjects suppress coughing). Compared with control, mindfulness decreased cough reflex sensitivity in healthy volunteers, but did not alter cough threshold in patients with chronic cough. Both groups were able to suppress cough responses to citric acid inhalation.*

## 2.2 SPIRITUALITY & HEALTH: RELIGIOSITY

Abdel-Khalek, AM & D Lester. 2009. A significant association between religiosity and happiness in a sample of Kuwaiti students. *Psychological Reports* 105(2). 381-382.

doi:[10.2466/PRO.105.2.381-382](https://doi.org/10.2466/PRO.105.2.381-382).

*In a sample of 162 Kuwaiti undergraduates (33 men, 129 women; M age=20.1 years), self-ratings of happiness were significantly and positively correlated with self-ratings of religiosity and strength of religious belief as well as scores on Hoge's Scale of Intrinsic Religious Motivation.*

Dehan, Nicole & Zipi Levi. 2009. Spiritual abuse: an additional dimension of abuse experienced by abused Haredi (Ultraorthodox) Jewish wives. *Violence Against Women* 15(11). 1294-1310.

doi:[10.1177/1077801209347619](https://doi.org/10.1177/1077801209347619).

*This article conceptualizes spiritual abuse as an additional dimension to physical, psychological, sexual, and economic abuse. From an interpretivist research study in a therapeutic Haredi (Jewish ultraorthodox) group of eight abused women, spiritual abuse has been defined as any attempt to impair the woman's spiritual life, spiritual self, or spiritual well-being, with three levels of intensity: (a) belittling her spiritual worth, beliefs, or deeds; (b) preventing her from performing spiritual acts; and (c) causing her to transgress spiritual obligations or prohibitions.*

Dollahite, D. C., E. Layton, H. M. Bahr, A. B. Walker & J. Y. Thatcher. 2009. Giving Up Something Good for Something Better: Sacred Sacrifices Made by Religious Youth. *Journal of Adolescent Research* 24(6). 691-725.

doi:[10.1177/0743558409343463](https://doi.org/10.1177/0743558409343463).

*Seventy-seven religious adolescents in 55 religious Jewish, Christian, Muslim, and Mormon families in New England and northern California were interviewed about whether they felt they had been asked to make sacrifices for their faith as they were growing up. Adolescents reported sacrifices in five domains: societal expectations, popular culture, comforts and pleasures, time and activities, and peer relations. Youth gave the following reasons for being willing to make sacrifices: connecting to a higher meaning or purpose, connecting to God, connecting to the faith tradition or community, fulfilling expectations, feeling affective benefits, and avoiding problems.*

Haber, Jon Randolph & Theodore Jacob. 2009. Mediation of family alcoholism risk by religious affiliation types. *Journal of Studies on Alcohol and Drugs* 70(6). 877-889.

*A national sample of male and female adolescents/young adults (N = 1,329; mean age = 19.6 years) was selected who were the offspring of members of the Vietnam-era Twin Registry. Parental alcoholism, religious affiliation types, and their interactions were examined as predictors of offspring alcohol dependence (AD) symptoms. Researchers found that religious differentiation is an inverse mediator of alcoholism risk for offspring with or without parental AD history and regardless of the influence of other religion variables.*

Hussein, Hanan & Jan R Oyebode. 2009. Influences of religion and culture on continuing bonds in a sample of British Muslims of Pakistani origin. *Death Studies* 33(10). 890-912.

doi: [10.1080/07481180903251554](https://doi.org/10.1080/07481180903251554)

*Ten participants were interviewed and transcripts were analyzed using grounded theory methodology. Dreaming, talking with others about the deceased, following the deceased's example, keeping memories and mementos, and doing actions thought to help the deceased were forms of continued relationship found. Religion was a strong influence on the prominence given by participants to finishing well and on the notion of doing actions thought to help the deceased.*

Lim, Jung-won & Jaehye Yi. 2009. The effects of religiosity, spirituality, and social support on quality of life: a comparison between Korean American and Korean breast and gynecologic cancer survivors. *Oncology Nursing Forum* 36(6). 699-708.

doi:[10.1188/09.ONF.699-708](https://doi.org/10.1188/09.ONF.699-708).

*110 Korean and 51 Korean American women diagnosed with breast and gynecologic cancer were recruited from Southern California and Seoul, Korea and completed a mailed questionnaire. Religiosity and spirituality were related to some quality of life (QOL) outcomes in different patterns in Korean American and Korean breast and gynecologic cancer survivors. The effect on QOL, however, was not strong after controlling for covariates. Social support partially mediated the effect of spirituality on QOL but only among the Korean American cancer survivors.*

Mulligan, Thomas & Frank M Skidmore. 2009. Religiosity may alter the cold pressor stress response. *Explore* 5(6). 345-346.

doi:[10.1016/j.explore.2009.08.002](https://doi.org/10.1016/j.explore.2009.08.002).

*No abstract available.*

Rabinowitz, Yaron G, Brent T Mausbach, Philip J Atkinson & Dolores Gallagher-Thompson. 2009. The relationship between religiosity and health behaviors in female caregivers of older adults with dementia. *Aging & Mental Health* 13(6). 788-798.

doi:[10.1080/13607860903046446](https://doi.org/10.1080/13607860903046446).

*In a sample of Latina and Caucasian female caregivers of older adult relatives with dementia, researchers explored the relationship between three dimensions of religiosity (organizational religiosity, non-organizational religiosity, and subjective religiosity) and caregiver health behavior patterns. Among Caucasians, increased subjective religiosity was related to increased cumulative health risk. Conversely, in Latinas, non-organizational religiosity was positively correlated with improved dietary practices. Increased levels of subjective religiosity were significantly associated with decreased maintenance of a routine exercise regimen across ethnic groups.*

Root, R. 2009. Religious participation and HIV-disclosure rationales among people living with HIV/AIDS in rural Swaziland. *AJAR - African Journal of AIDS Research* 8(3). 295-309.

doi:[10.2989/AJAR.2009.8.3.6.927](https://doi.org/10.2989/AJAR.2009.8.3.6.927).

*A grounded theory analysis showed that disclosure of HIV-status in church settings in Swaziland is mediated by subjective religiosity, the social dynamics of church networks, and broader structural vulnerabilities. Church participation often entailed significant stigma, which negatively affected self-disclosure and help-seeking practices; however, a rhetoric of 'courage' emerged to describe individuals who voluntarily disclosed their HIV-positive status.*

Strauss, Judy P. & Olukemi Sawyerr. 2009. Religiosity and Attitudes Toward Diversity: A Potential Workplace Conflict? *Journal of Applied Social Psychology* 39. 2626-2650.

doi:[10.1111/j.1559-1816.2009.00541.x](https://doi.org/10.1111/j.1559-1816.2009.00541.x).

*The study investigates relationships between 2 measures of religiosity (immanence orientation and religious fundamentalism) and 2 measures of attitudes toward diversity (universal-diverse orientation and attitudes toward gay men and lesbians) in 220 business students (M = 26.0). Immanence orientation related positively, and religious fundamentalism related negatively, with both measures of diversity attitudes. However, when both measures were included in the hierarchical regression equation, immanence orientation no longer related significantly with attitudes toward lesbians and gay men, and religious fundamentalism no longer related significantly with universal-diverse orientation.*

Vaaler, ML, CG Ellison & DA Powers. 2009. Religious Influences on the Risk of Marital Dissolution. *Journal of Marriage and the Family* 71(4). 917-934.

*A sample of 2,979 first-time married couples indicates that although each partner's religious attendance bore a modest relationship to marital dissolution, the risk of divorce was lower if husbands had conservative theological beliefs and when both partners belonged to mainline Protestant denominations. Conversely, the risk of divorce was elevated if husbands attended services more frequently than their wives and if wives were more theologically conservative than their husbands.*

## **2.3 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING**

Chochinov, Harvey Max, Thomas Hassard, Susan McClement, Thomas Hack, Linda J Kristjanson, Mike Harlos, Shane Sinclair & Alison Murray. 2009. The landscape of distress in the terminally ill. *Journal of Pain and Symptom Management* 38(5). 641-649.  
doi:[10.1016/j.jpainsymman.2009.04.021](https://doi.org/10.1016/j.jpainsymman.2009.04.021).

*This study used the Patient Dignity Inventory (PDI) to describe a broad landscape of distress in patients who are terminally ill. The PDI was administered to 253 patients receiving palliative care. Palliative care patients reported an average of 5.74 problems, including physical, psychological, existential, and spiritual challenges. Being an inpatient, being educated, and having a partner were associated with certain kinds of end-of-life problems, particularly existential distress. Spirituality, especially its existential or "sense of meaning and purpose" dimension, was associated with less distress for terminally ill patients.*

McCullough, Michael E, Howard S Friedman, Craig K Enders & Leslie R Martin. 2009. Does devoutness delay death? Psychological investment in religion and its association with longevity in the Terman sample. *Journal of Personality and Social Psychology* 97(5). 866-882.  
doi:[10.1037/a0016366](https://doi.org/10.1037/a0016366).

*Using discrete-time survival growth mixture models, researchers found that women (but not men) with the lowest degrees of religiousness through adulthood had shorter lives than did women who were more religious. Survival differences were largely attributable to cross-sectional and prospective between-class differences in personality traits, social ties, health behaviors, and mental and physical health.*

## **2.4 SPIRITUALITY & HEALTH: METHOD AND THEORY**

Becker, Annette L. 2009. Ethical considerations of teaching spirituality in the academy. *Nursing Ethics* 16(6). 697-706.  
doi:[10.1177/0969733009342639](https://doi.org/10.1177/0969733009342639).

*The author presents a model of teaching spirituality and health in the academy that takes into account the challenges and barriers inherent in teaching this topic, including the affective response, the lack of a universally accepted definition of spirituality, and spirituality's relationship to religion.*

Buck, Harleah G, Janine Overcash & Susan C McMillan. 2009. The geriatric cancer experience at the end of life: testing an adapted model. *Oncology Nursing Forum* 36(6). 664-673.  
doi:[10.1188/09.ONF.664-673](https://doi.org/10.1188/09.ONF.664-673).

*In a study of 403 hospice patients (56% men; M = 77.7 years), a three-factor model with quality-of-life (QOL) as an outcome variable showed that 67% of the variability in QOL is explained by the patient's symptom and spiritual experiences. As symptoms and associated severity and distress increase, the patient's QOL decreases. As the spiritual experience increases (the expressed need for inspiration, spiritual activities, and religion), QOL also increases.*

Cadge, W, EH Ecklund & N Short. 2009. Religion and Spirituality: A Barrier and a Bridge in the Everyday Professional Work of Pediatric Physicians. *Social Problems* 56(4). 702-721.

doi:[10.1525/sp.2009.56.4.702](https://doi.org/10.1525/sp.2009.56.4.702).

*In a survey of 30 pediatricians and pediatric oncologists at elite medical centers, the authors found that pediatric oncologists, more than pediatricians, see religion and spirituality as relevant to their professional work, though still largely outside their professional jurisdiction. It is most relevant when families are making medical decisions and in end of life situations. Physicians tend to view religion and spirituality functionally, describing impermeable boundaries in medical decision-making situations and more permeable boundaries at the end of life. Physicians view religion and spirituality as a barrier when it impedes medical recommendations and as a bridge when it helps families answer questions medicine inherently cannot.*

Carlisle, Sandra, Gregor Henderson & Phil W Hanlon. 2009. "Wellbeing": a collateral casualty of modernity? *Social Science & Medicine* 69(10). 1556-1560.

doi:[10.1016/j.socscimed.2009.08.029](https://doi.org/10.1016/j.socscimed.2009.08.029).

*The authors review literature on wellbeing in psychology and economics, then examine the connections between the meanings of the concept with the moral value systems of particular 'modern' societies. They argue that both the "science" of wellbeing and its critique are, despite their diversity, re-connected by and subsumed within the emerging environmental critique of modern consumer society. This places concerns for individual and social wellbeing within the broader context of global human problems and planetary wellbeing.*

Chism, LA & MA Magnan. 2009. The relationship of nursing students' spiritual care perspectives to their expressions of spiritual empathy. *Journal of Nursing Education* 48(11). 597-605.

doi:[10.3928/01484834-20090716-05](https://doi.org/10.3928/01484834-20090716-05).

*In a descriptive correlational study, guided by Chism's Middle-Range Theory of Spiritual Empathy, researchers found that spiritual care perspectives (attitudes and beliefs) accounted for 8.6% of the variance in nursing students' (N = 223) expressions of spiritual empathy (verbally expressing one's understanding of a patient's spiritual concerns), after controlling for relevant demographic and spirituality variables. The surveyed nursing students were students at a university in the midwestern United States. The majority (87%) of the participants denied having any spiritual training, and most participants (85%) indicated that they had a religious affiliation; 90% indicated that they were somewhat or very spiritual individuals. The authors conclude that the provision of spiritual care in nursing practice depends, in part, on nurses clarifying their own spiritual care perspectives.*

Cox, John L & Alison J Gray. 2009. Psychiatry for the person. *Current Opinion in Psychiatry* 22(6). 587-593.

doi:[10.1097/YCO.0b013e3283318e49](https://doi.org/10.1097/YCO.0b013e3283318e49).

*This review considers the work around the "Psychiatry for the Person Programme" of the World Psychiatric Association, as well as the wider medical context based on recent publications in the fields of ethics, religion, spirituality and person-centered medicine. They authors identify a need for evaluative outcome studies of person-centered care, and a reformulation of the bio-psychosocial model to incorporate new knowledge in the neurosciences, philosophy, anthropology, ethics and theology.*

Davis, Don E., Everett L. Worthington, Joshua N. Hook, Daryl R. Van Tongeren, Jeffrey D. Green & David J. II Jennings. 2009. Relational spirituality and the development of the Similarity of the Offender's Spirituality Scale. *Psychology of Religion and Spirituality* 1(4). 249-262.

doi:[10.1037/a0017581](https://doi.org/10.1037/a0017581).

*The authors present a model of relational spirituality and forgiveness that considers how a victim's spirituality affects his or her experience of and response to a transgression. They investigate the psychometric properties of the Similarity of the Offender's Spirituality Scale (SOS), which assesses the extent to which the victim sees the offender as spiritually similar. The SOS showed initial evidence of construct validity, being related to other*

*measures of spirituality and to measures of the victim's response to a transgression. The overall model was found to offer incremental validity beyond known predictors of forgiveness.*

Denner, Sallie Stoltz. 2009. The science of energy therapies and contemplative practice: a conceptual review and the application of zero balancing. *Holistic Nursing Practice* 23(6). 315-334.

*This article describes a conceptual framework of quantum physics principles that provides the basis for interpretation of energetic phenomena, along with the exploration of theoretical concepts involving energy as a communicational network. An overview of the contemplative tradition of meditation indicates its necessity as a requisite element of energy therapies. The relevance of energy therapies as a path to self-transcendence, along with the application of a specific touch technique, Zero Balancing, is highlighted.*

Glueckauf, Robert L, W Shuford Davis, Kay Allen, Patty Chipi, Gabriel Schettini, Lance Tegen, Xu Jian et al. 2009. Integrative cognitive-behavioral and spiritual counseling for rural dementia caregivers with depression. *Rehabilitation Psychology* 54(4). 449-461.  
doi:[10.1037/a0017855](https://doi.org/10.1037/a0017855).

*Researchers found that rural dementia care givers reported significant increases in counseling comfort and perceived counseling efficacy by faith community nurses that had been trained in cognitive-behavioral and spiritual counseling. Case study findings also provided evidence of substantial improvement in caregiving problems and reductions in depression.*

Gracia, M.C. 2009. The probable cause of civilization diseases and the structural limits of pleasure. *Medical Hypotheses* 73(5). 838-842.  
doi:[10.1016/j.mehy.2009.04.048](https://doi.org/10.1016/j.mehy.2009.04.048).

*This article offers two hypotheses to explain "civilization" diseases whose ultimate causes are currently unknown or uncontrollable. It provides a theoretical basis and experimental evidence for the following rules: (1) All mental activities involving some level of intelligence ultimately follow the laws of operant conditioning and can exert a long-term control of behaviour only if they regularly provide the midbrain centres with the minimal set of neural rewards that these centres expect; (2) Mental activity is always accompanied by a proportional amount of efferent-controlled physiological activity, which may be, for example, voluntary muscular work, but also internal, possibly surreptitious phenomena like inflammation, immune reactions, blood pressure increase, etc.*

Hill, Eric D, Heather K Terrell, Steven Hladkyj & Craig T Nagoshi. 2009. Validation of the Narrative Emplotment Scale and its correlations with well-being and psychological adjustment. *British Journal of Psychology* 100(Pt 4). 675-698.  
doi:[10.1348/000712608X396585](https://doi.org/10.1348/000712608X396585).

*Researchers examined correlates of the Narrative Emplotment Scale (NES), which measures the extent to which individuals perceive chance events and unchosen experiences as meaningfully connected. In Study 1 (N=99), the NES demonstrated adequate test-retest stability and good internal reliability. The scale was positively related to paranormal beliefs, mystical experiences, and absorption. In Study 2 (N=342), personality measures indicative of external locus of control, intrinsic religiosity, well-being, satisfaction with life, and a measure of frequency of coincidence experience were all positively correlated with narrative emplotment, providing further support for the construct validity of the scale.*

Johnstone, Brick & Dong Pil Yoon. 2009. Relationships between the Brief Multidimensional Measure of Religiousness/Spirituality and health outcomes for a heterogeneous rehabilitation population. *Rehabilitation Psychology* 54(4). 422-431.  
doi:[10.1037/a0017758](https://doi.org/10.1037/a0017758).

*In a cross-sectional analysis of 118 individuals evaluated in outpatient settings, 3 of 6 BMMRS factor scores (positive spiritual experience; forgiveness; negative spiritual experience) were significantly correlated with the SF-36 General Health Perception scale, and only 1 of 6 BMMRS factor scores (negative spiritual experience) was significantly and negatively correlated with the SF-36 General Mental Health (GMH) scale. BMMRS scales did not significantly predict either physical or mental health in hierarchical multiple regressions.*

Kaplan, SA, C Ruddock, M Golub, J Davis, R Foley, C Devia, R Rosen, C Berry, B Barretto, T Carter, E Irish-Spencer, M Marchena, E Purcaro & N Calman. 2009. Stirring up the Mud: Using a Community-Based Participatory Approach to Address Health Disparities through a Faith-Based Initiative. *Journal of Health Care for the Poor and Underserved* 20(4). 1111-1123.

*This case study provides a mid-course assessment of the Bronx Health REACH faith-based initiative. It identifies lessons learned and reflects on the benefits and challenges of using a community-based participatory approach. Key findings concern the role of pastoral leadership, the importance of providing a religious context for health promotion and health equality messages, the challenges of creating a bilingual/bi-cultural program, and the need to provide management support to the lay program coordinators.*

Limb, GE & DR Hodge. 2008. Developing Spiritual Competency With Native Americans: Promoting Wellness Through Balance and Harmony. *Families in Society - The Journal of Contemporary Social Services* 89(4). 615-622.  
doi:[10.1606/1044-3894.3816](https://doi.org/10.1606/1044-3894.3816).

*This paper discusses the relationship between spirituality and health in many Native American tribal cultures, highlighting the roles that balance and harmony play in fostering health and well-being. Also discussed are common spiritual beliefs and practices, the American Indian Religious Freedom Act, areas of potential value conflict, and practice suggestions to enhance spiritual competency when working with Native Americans.*

McCabe Ruff, Kelley & Elizabeth R. Mackenzie. 2009. The Role of Mindfulness in Healthcare Reform: A Policy Paper. *EXPLORE: The Journal of Science and Healing* 5(6). 313-323.  
doi:[10.1016/j.explore.2009.10.002](https://doi.org/10.1016/j.explore.2009.10.002).

*In this guest editorial, the authors reference the health care crisis in the United States, and propose mind-body treatments as cost-saving approaches to healing. They make 14 specific policy recommendations based on reviewed literature in the field. The editorial is co-signed by 22 other authors.*

Reed, PG. 2009. Demystifying Self-Transcendence for Mental Health Nursing Practice and Research. *Archives of Psychiatric Nursing* 23(5). 397-400.  
doi:[10.1016/j.apnu.2009.06.006](https://doi.org/10.1016/j.apnu.2009.06.006).

*This column provides an overview of the concept of self-transcendence as one developmentally-based resource for mental health. The Self-Transcendence Scale (STS) is presented to encourage its use in mental health nursing practice and research. The STS can be used by nurses in mental health assessments and interactions with patients who are depressed, bereaved, or otherwise confronting loss.*

Reyes-Ortiz, Carlos A, Michael Rodriguez & Kyriakos S Markides. 2009. The role of spirituality healing with perceptions of the medical encounter among Latinos. *Journal of General Internal Medicine* 24(Supplement 3). 542-547.  
doi:[10.1007/s11606-009-1067-9](https://doi.org/10.1007/s11606-009-1067-9).

*In a telephone survey of 3,728 Latinos (age ≥ 18 years) residing in the United States from Wave 1 of the Pew Hispanic Center/Robert Wood Johnson Foundation Latino Health Survey, 6% of individuals reported that they had ever consulted a curandero (Latin American folk healer), 60% prayed for healing, 49% asked others to pray for healing, and 69% considered spiritual healing as very important. In multivariable analyses, feeling*

*confused was associated with increased odds of consulting a curandero, praying for healing, asking others to pray for healing, and considering spiritual healing as very important. Feeling frustrated by a lack of information was associated with asking others to pray for healing. A better perception of quality of medical care was associated with lower odds of consulting a curandero.*

Sharma, Sonya, Sheryl Reimer-Kirkham & Marie Cochrane. 2009. Practicing the awareness of embodiment in qualitative health research: methodological reflections. *Qualitative Health Research* 19(11). 1642-1650.

doi:[10.1177/1049732309350684](https://doi.org/10.1177/1049732309350684).

*In this article, the authors present methodological reflections on a recent critical ethnographic study examining the negotiation of religious, spiritual, and cultural plurality in health care, focused on the influence of the embodied researcher. They highlight emotional and bodily ways of knowing and experiences of difference such as culture, race, and religion as embodied, and a part of researcher-participant encounters.*

Taylor, Elizabeth Johnston & Mark F Carr. 2009. Nursing ethics in the Seventh-Day Adventist religious tradition. *Nursing Ethics* 16(6). 707-718.

doi:[10.1177/0969733009343135](https://doi.org/10.1177/0969733009343135).

*This article examines how the theology of one religious tradition, Seventh-day Adventism (SDA), could affect nurses. An overview of SDA history and beliefs is presented, which explains why 'medical missionary' work is central to SDAs. Theological foundations that would permeate an SDA nurse's view of the nursing metaparadigm concepts of person, health, environment (i.e., community), and nursing (i.e., service) are presented. The ethical principles guiding SDA nurses (principled, case-based, and care ethics) and the implications of these theological foundations for nurses are noted in a case study.*

Westra, Anna E, Dick L Willems & Bert J Smit. 2009. Communicating with Muslim parents: "the four principles" are not as culturally neutral as suggested. *European Journal of Pediatrics* 168(11). 1383-1387.

doi:[10.1007/s00431-009-0970-8](https://doi.org/10.1007/s00431-009-0970-8).

*The authors investigate the "four principles approach" (respect for autonomy, nonmaleficence, beneficence and justice) that has been popularly accepted as a set of universal guidelines for biomedical ethics. They conclude that in some cases, communication in terms of these principles may create a conflict within an apparently common conceptual framework; while the four principles approach may be very helpful in analyzing ethical dilemmas, when communicating with patients with different backgrounds, an alternative approach is needed that pays genuine attention to the different backgrounds.*



## PART 3. BOOKS

### ***3.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR***

- Glucklich, Ariel. 2009. *Dying for Heaven: Holy Pleasure and Suicide Bombers: Why the Best Qualities of Religion Are Also Its Most Dangerous*. New York: HarperOne.
- Kappeler, Peter M., & Joan B. Silk (eds.). 2009. *Mind the Gap: Tracing the Origins of Human Universals*. Berlin: Springer.
- Matthews, Michael R. (ed.). 2009. *Science, Worldviews and Education: Reprinted from the Journal "Science & Education."* Berlin: Springer.
- McNamara, Patrick. 2009. *The Neuroscience of Religious Experience*. New York: Cambridge University Press.
- Pawar, Sheela. 2009. *Trusting Others, Trusting God*. (Ashgate New Critical Thinking in Religion, Theology, and Biblical Studies). Surrey, England: Ashgate.
- Tomasello, Michael. 2009. *Why We Cooperate: based on the 2008 Tanner lectures on human values at Stanford University*. Cambridge, MA: MIT Press.
- Waal, Frans B. M. De. 2009. *The Age of Empathy*. Toronto: McClelland & Stewart.
- Wade, Nicholas. 2009. *The Faith Instinct: How Religion Evolved and Why It Endures*. New York: Penguin Press.

### ***3.2 SPIRITUALITY & HEALTH RESEARCH***

- Mayo, Kelley Raab. 2009. *Creativity, Spirituality, and Mental Health: Exploring Connections*. (New Critical Thinking in Religion, Theology and Biblical Studies). Surrey, England: Ashgate.
- Mijares, Sharon G. (ed.). 2009. *The Revelation of the Breath: A Tribute to Its Wisdom, Power, and Beauty*. (SUNY Series in Transpersonal and Humanistic Psychology). Albany, NY: State University of New York Press.

## PART 4. ARTICLES IN PRESS

### 4.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

Balliet, Daniel. Conscientiousness and forgivingness: A meta-analysis. *Personality and Individual Differences*.

doi:[10.1016/j.paid.2009.10.021](https://doi.org/10.1016/j.paid.2009.10.021).

Brañas-Garza, Pablo, Ramón Cobo-Reyes, María Paz Espinosa, Natalia Jiménez, Jaromír Kovářík & Giovanni Ponti. Altruism and social integration. *Games and Economic Behavior*.

doi:[10.1016/j.geb.2009.10.014](https://doi.org/10.1016/j.geb.2009.10.014).

Brezis, Elise S. Can Demographic Transition only be Explained by Altruistic and Neo-Malthusian Models? *Journal of Socio-Economics*.

doi:[10.1016/j.socec.2009.11.001](https://doi.org/10.1016/j.socec.2009.11.001)

Dur, Robert & Joeri Sol. Social interaction, co-worker altruism, and incentives. *Games and Economic Behavior*.

doi:[10.1016/j.geb.2009.10.013](https://doi.org/10.1016/j.geb.2009.10.013).

Fotopoulou, Aikaterini. 2009. The affective neuropsychology of confabulation and delusion. *Cognitive Neuropsychiatry*. 1-26.

doi:[10.1080/13546800903250949](https://doi.org/10.1080/13546800903250949).

Güth, Werner. The Generosity Game and Calibration of Inequity Aversion. *Journal of Socio-Economics*.

doi:[10.1016/j.socec.2009.10.012](https://doi.org/10.1016/j.socec.2009.10.012).

Heller, William B. & Katri K. Sieberg. Honor among thieves: Cooperation as a strategic response to Functional Unpleasantness. *European Journal of Political Economy*.

doi:[10.1016/j.ejpoleco.2009.11.006](https://doi.org/10.1016/j.ejpoleco.2009.11.006).

Jaseja, Harinder. Potential role of self-induced EEG fast oscillations in predisposition to seizures in meditators. *Epilepsy & Behavior*.

doi:[10.1016/j.yebeh.2009.10.022](https://doi.org/10.1016/j.yebeh.2009.10.022).

Kallis, Giorgos & Richard B. Norgaard. Coevolutionary ecological economics. *Ecological Economics*.

doi:[10.1016/j.ecolecon.2009.09.017](https://doi.org/10.1016/j.ecolecon.2009.09.017).

Li, Yixiao, Xiaogang Jin, Xianchuang Su, Fansheng Kong & Chengbin Peng. Cooperation and charity in spatial public goods game under different strategy update rules. *Physica A: Statistical Mechanics and its Applications*.

doi:[10.1016/j.physa.2009.11.010](https://doi.org/10.1016/j.physa.2009.11.010).

Njamnshi, Alfred K., Anne-Cécile Zoung-Kanyi Bissek, Faustin N. Yepnjo, Earnest N. Tabah, Samuel A. Angwafor, Callixte T. Kuate, Fidèle Déma et al. A community survey of knowledge, perceptions, and practice with respect to epilepsy among traditional healers in the Batibo Health District, Cameroon. *Epilepsy & Behavior*.

doi:[10.1016/j.yebeh.2009.10.018](https://doi.org/10.1016/j.yebeh.2009.10.018).

Oda, Ryo & Shun Nakajima. Biased face recognition in the Faith Game. *Evolution and Human Behavior*.

doi:[10.1016/j.evolhumbehav.2009.08.005](https://doi.org/10.1016/j.evolhumbehav.2009.08.005).

Perlovsky, Leonid. Musical emotions: Functions, origins, evolution. *Physics of Life Reviews*.

doi:[10.1016/j.plrev.2009.11.001](https://doi.org/10.1016/j.plrev.2009.11.001).

Poulsen, Anders & Odile Poulsen. Prisoner's Dilemma Payoffs and the Evolution of Co-operative Preferences. *Journal of Socio-Economics*.

doi:[10.1016/j.socec.2009.10.002](https://doi.org/10.1016/j.socec.2009.10.002).

Reuben, Ernesto & Jean-Robert Tyran. Everyone is a winner: Promoting cooperation through all-can-win intergroup competition. *European Journal of Political Economy*.

doi:[10.1016/j.ejpoleco.2009.10.002](https://doi.org/10.1016/j.ejpoleco.2009.10.002).

Schug, Joanna, David Matsumoto, Yutaka Horita, Toshio Yamagishi & Kemberlee Bonnet. Emotional expressivity as a signal of cooperation. *Evolution and Human Behavior*.

doi:[10.1016/j.evolhumbehav.2009.09.006](https://doi.org/10.1016/j.evolhumbehav.2009.09.006).

Shechory, Mally & Avital Laufer. 2009. Ideological Delinquency: Gender Differences Among Israeli Youth During the Withdrawal From the Gaza Strip. *International Journal of Offender Therapy and Comparative Criminology*.

doi:[10.1177/0306624X09352618](https://doi.org/10.1177/0306624X09352618).

Vail, Kenneth E, Zachary K Rothschild, Dave R Weise, Sheldon Solomon, Thomas Pyszczynski & Jeff Greenberg. 2009. A Terror Management Analysis of the Psychological Functions of Religion. *Personality and Social Psychology Review: An Official Journal of the Society for Personality and Social Psychology, Inc*.

doi:[10.1177/1088868309351165](https://doi.org/10.1177/1088868309351165).

#### **4.2 SPIRITUALITY & HEALTH RESEARCH**

Bhalotra, Sonia, Christine Valente & Arthur van Soest. The Puzzle of Muslim Advantage in Child Survival in India. *Journal of Health Economics*.

doi:[10.1016/j.jhealeco.2009.11.002](https://doi.org/10.1016/j.jhealeco.2009.11.002).

Bosma, Harvey, Lars Aplan & Arminee Kazanjian. 2009. Cultural conceptualizations of hospice palliative care: More similarities than differences. *Palliative Medicine*.

doi:[10.1177/0269216309351380](https://doi.org/10.1177/0269216309351380).

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