The SAGE Handbook of the Sociology of Religion

New Age Religion and Irreligion

10.4135/9781848607965.n13

[p. 248 ↓]

Chapter 12: New Age Religion and Irreligion

This chapter scans the periphery of conventional religion, employing unifying themes to consider the New Age Movement, parapsychology, Atheism, and the challenge to religion posed by what E. O. Wilson (1998) calls the *consilience* of science, and what Roco and Bainbridge (2003) call the *convergence* of technology. One theme is the tension between religious authority embodied in traditional denominations and religious traditions, versus the freedom or anarchy represented by a variety of loosely organized parareligious movements, and by people like Atheists and Transhumanists who turn their backs on the supernatural altogether. Another is the function that religion performs for individuals, through both primary and secondary compensation for unavailable but highly desired rewards. A third theme is the progressive consolidation of a secular culture, based partly in science and technology, that is simultaneously libertarian and global, personal and cosmopolitan.

The New Age

John A. Saliba (2003: 27) has noted that the New Age 'has no central organization and no commonly accepted creed.' However, J. Gordon Melton (2000) has argued that its historical heart was a millenarian movement that coalesced in the 1960s, when popular culture proclaimed the dawning of the Age of Aquarius. As a distinct movement anticipating the spiritual transformation of the world, Melton says, the New Age reached a peak in the 1980s, then faded afterward. The net result was increased public awareness of alternative spiritual beliefs and practices. The meaning of the term *New Age* is currently ambiguous, and many people do not distinguish it from occult or paranormal phenomena. The nearest thing to a definition is that the New Age is whatever is sold in 'New Age' shops or in the 'New Age' sections of bookstores.

The online bookseller, http://Amazon.com, includes both New Age and Occult categories within a larger category called Religion and Spirituality. The phenomena covered by New Age are: Astrology, Chakras, Channeling, Divination, Dreams, Meditation, Mental and Spiritual Healing, Mysticism, New Thought, Reincarnation, Self-Help, Theosophy, Urantia, and Visionary Fiction. The Occult category contains: Alchemy, Astral Projection, Auras and Colors, Crop Circles, Cults and Demonism, ESP, Magic, Metaphysical Phenomena, Near-Death Experiences, Occultism, Parapsychology, Rosicrucianism, Satanism, Shamanism, **[p. 249 ↓]** Spiritualism, Supernatural, UFOs, Unexplained Mysteries, Wicca, and Witchcraft. The Barnes & Noble company uses a somewhat different category system, and Table 12.1 shows the numbers of book titles listed in 30 subcategories of New Age and Alternative Beliefs, as of May 2005.

Each of the Barnes & Noble categories has many subcategories. For example, Astrology has fully 97, from American Federation of Astrologers to Zodiac, including several of the separate planets and constellations, plus special topics like Astrological Geomancy, Ephemerides, and Houses. Note that the http://Amazon.com and Barnes & Noble classifications mix religious and allegedly non-religious phenomena. What they may have in common is being deviant from the standpoint of the conventional Judeo-Christian tradition in Western societies. Beliefs and practices from Eastern religion are included, but without the sophisticated organizational and cultural context of the societies from which they came.

Consider Astrology. In 1993 and 1994, the General Social Survey asked 2,943 American adults how true each of a set of statements was, including: Astrology – the study of star signs – has some scientific truth.' Fully 46.2 per cent said definitely or probably true, 41.8 per cent said definitely or probably not true, and 11.9 per cent failed to decide. Thus, the modal response was the feeling that Astrology has some truth, even though the relevant scientific disciplines (astronomy and perhaps psychology) reject astrology, and the dominant Judeo-Christian-Islamic religious tradition has no place for it either (Bok and Mayall 1941).

In the ancient world, Astronomy was intimately connected to religion, and when the Babylonians named the planets after their gods, they probably imagined that those distant lights in the sky actually were manifestations of their deities (Toulmin and

Goodfield 1962). The modern astronomical idea that the planets are lifeless objects unrelated to human purposes was alien to the ancients' way of thought. Most modern astrologers seem to lack a general theory of their art, because few of them take the ancient gods seriously, and they probably do not want to alienate customers who still retain some affinity to a conventional religious tradition.

Except for the mystical principle 'as above, so below,' and non-technical references to the tides caused by the gravity of Moon and Sun, modern astrologers do not explain the physical mechanisms by which the planets could influence our fates (McIntosh 1969). In contrast, some authors connect astrology to Tarot and other interpretive practices as part of a unified symbolic system with which to think about human life and personality, without asserting that the physical planets and stars of astronomy have anything to do with the spiritual planets and constellations of astrology (Gad 1994).

If the phenomena in question here are similar to religion, but in some way different, how are we to conceptualize them? One controversial term that is often applied to them is *cult*. **[p. 250 ↓]** Dictionaries typically give several definitions, and one found in *Webster's New Collegiate Dictionary* is 'a religion regarded as unorthodox or spurious.' Journalists and public critics of unorthodox religions have used *cult* as a term of opprobrium, implying that a group so called must be spurious, illegitimate, and vile. In reaction to this stigmatization, many scholars have shifted to the phrase *new religious movement*, but this is an awkward term, especially when applied to phenomena that are not new and may not be religious. Stark and Bainbridge (1985) urged scholars to ignore the connotation that journalists give to the word *cult*, and employ it to name supernaturally oriented subcultures with novel or exotic beliefs and practices. Indeed, these phenomena deserve social-scientific study precisely because they reveal many general processes of cultural innovation and variation: *Cult is culture writ small*.

2,361	Witchcraft and Magic	353	Tarot	147	Numerology
1,061	Spiritualism	348	Cults	145	Mysticism
1,001	Astrology			135	Anthroposophy

		331	Ghosts & Haunted Places		
916	Mental & Spiritual Healing	316	Supernatural	133	Near-Death & Out of Body Experiences
661	Parapsychology	281	Aliens & UFOs	110	Fraternal Orders: Freemasonry
536	Meditation	261	Angels	103	Sacred Places
517	New Age	228	Reincarnation	64	Atlantis
447	Dreams & Dream Interpretation	183	Alternate Beliefs & Spirituality – Reference	52	Auras & Colors
402	Prophecy	167	New Thought	36	Graphology
356	Fortune Telling & Divination	159	Demonology & Satanism	33	Fraternal Orders: General & Miscellaneous

Human culture is the result of social processes of innovation, evaluation, and communication intended to help people achieve desired goals, such as health, security, wealth, and social status. In the pursuit of desired goals, humans frame explanations about how and why rewards can be obtained and costs avoided. Successful explanations are recipes, tactics, instructions, or algorithms for gaining the reward in a series of steps. When a reward is difficult or impossible to attain within the natural world, humans often imagine ways of seeking it that involve supernatural forces, realms, or beings. Such unproven but hopeful explanations involve *compensators*,

essentially promises that must be taken on faith. Table 12.2 lists some definitions that Stark and Bainbridge (1985,1987) offered for describing and analyzing cults and associated phenomena, in terms of compensators.

The distinction between *religion* (general compensators) and *magic* (specific compensators) merely elaborates the traditional anthropological distinction between these terms (Malinowski 1948). Religion makes big promises, and magic, small ones. For example, religion may promise eternal life, whereas magic offers a supposed cure for a particular disease. The sociological characters of New Age and occult phenomena are clarified by the concepts: cult movement, client cult, and audience cult.

A *cult movement* is a fully fledged religious organization, but one devoted to novel or exotic compensators (beliefs and related practices). Participants are members, and membership typically is exclusive; that is, members do not simultaneously belong to two or more competing religious movements.

A *client cult* is a magical service business, for example uniting a professional astrologer with clients who pay to have their horoscopes cast. The clients may simultaneously visit other cult **[p. 251 ↓]** practitioners for other magical services, such as Tarot reading or meditation training, and their relations with each other are informal. They are not fellow members of a formal organization.

Compensators are postulations of reward according to explanations that are not readily susceptible to unambiguous evaluation.
Compensators which substitute for single, specific rewards are called specific compensators.
Compensators which substitute for a cluster of many rewards and for rewards of great scope and value are called general compensators.
Supernatural refers to forces beyond or outside nature which can suspend, alter, or ignore physical forces.
Religion refers to systems of general compensators based on supernatural assumptions.

Magic refers to specific compensators that promise to provide desired rewards without regard for evidence concerning the designated means.
Cults are social enterprises primarily engaged in the generation and exchange of novel compensators.
A cult movement is a deviant religious organization with novel beliefs and practices.
A client cult is a magical service in which practitioners provide specific compensators to clients, often but not necessarily based on supernatural assumptions.
An audience cult is a cultural or mass media phenomenon that communicates magical or religious compensators without formal relations between producers and consumers.

An *audience cult* is a mythology. The professional myth-maker and his audience may never even meet, as the author of a book about UFOs has no direct social relationship with most readers. In the modern world, audience cults operate largely through the mass media. Thus, the three kinds of cult differ largely in terms of their degree of social organization from high in the case of cult movement (religion), medium in the case of client cults (magic), and low in the case of audience cults (mythology).

This conceptualization can be used to classify cases; for example, the books tallied in Table 12.1 are chiefly audience cult products. It can also be used to analyze processes of change. Sometimes a mythic audience cult can give birth to a magical client cult which evolves into a fully organized religious cult movement. Massimo Introvigne has used this insight to analyze the development of Damanhur, founded by Oberto Airaudi in Italy beginning in the 1970s:

> The birth of Damanhur could be described according to the well-known Stark-Bainbridge typology of audience cults, client cults and cult movements. Damanhur's experience shows that a leader and his or her followers could pass subsequently through the three stages. Damanhur started as an audience cult including the readers of Airaudi's popular books. When Airaudi started a professional career as a 'pranotherapist' and healer, his regular clients moved from the audience cult to the client cult stage. Finally, Airaudi was capable of organizing his clients into a movement, which eventually became communal (Introvigne 1999: 192).

SAGE knowledge

By the late 1990s, Damanhur had grown into a commune of 450 people, with another 300 associate members living in individual homes, and a wider membership of perhaps 1,000 who were studying the ideology. Its unique culture draws upon four chief sources: ancient Egypt, Celtic traditions, Theosophy, and the New Age. For 15 years, the group secretly labored to create a vast underground temple, which was discovered by amazed authorities in 1992. Thus, one of the ways that an audience cult may relate to religion is that it provides the socio-cultural basis for the emergence of a new cult movement. Another way is that an existing cult movement or client cult practitioner may publish books intended to attract potential recruits. For example an astrology book published by Heindel and Heindel in 1922 served to draw adherents to their cult movement, the Rosicrucian Fellowship, that established a small community in Oceanside, California.

Several research studies have explored the relationship between traditional religious commitment and the three degrees of cult organization. One could argue that religious people were especially attracted to the New Age, because it harmonizes with their belief in the supernatural – a positive correlation theory. Or, one could argue that traditionally religious people will reject the New Age, because they are committed to the contradictory set of beliefs promulgated by the denomination to which they belong – a negative correlation theory.

A more sophisticated curvilinear argument says that the New Age will be most popular among somewhat religious people, and least popular among both very religious and non-religious people. Very religious people do not like it because it contradicts their firmly held faith. Very irreligious people do not like it, because they reject the supernatural in general. Somewhat religious people are more accepting, because they are open to religious beliefs but lack doctrinal commitment.

Tobacyk and Milford (1983: 1029) defined paranormal phenomena to include:'… a wide range of beliefs and experiences concerning religion, psi (clairvoyance, precognition, telepathy, and psychokinesis), the occult, witchcraft, superstitions, the supernatural, and extraordinary and extraterrestrial life forms.' In creating a scale to measure these phenomena, they included four statements related to conventional religious belief: 'The soul continues to exist though the body may die.' 'There is a devil.' 'I believe in God.' 'There is a heaven and hell.' However, when Tobacyk and Milford applied the statistical technique called factor analysis to the data, these four items separated out from the

others. Thus, conventional religion is distinct from the other topics, even though some connections exist.

[p. 252 ↓]

Geographic analysis using rather old data on the United States, Canada, and Western Europe has indicated that cult movements and client cults were more common where church membership is relatively low (Stark and Bainbridge 1985; Bainbridge 1989a). One measure of audience cult activity, readership of the occult magazine *Fate*, showed a similar pattern, being less popular where the churches are strong. A questionnaire study of students at the University of Washington showed that 'Born Again' Protestants were far less likely than those with 'no religion' to approve of Yoga, Transcendental Meditation, Tarot reading, 'occult literature' and 'your horoscope' (Bainbridge 1997: 389).

These studies contradict the theory that the New Age and occult correlate positively with religion, and support the negative correlation theory. However, their data may not be sensitive enough to test the curvilinear theory. In a more recent questionnaire study of 1,765 Canadians, Alan Orenstein (2002) found a curvilinear relationship between church attendance and a scale measuring paranormal belief. Among Canadians who seldom if ever attend church, just 27.0 per cent score high on paranormal belief, compared with 34.6 per cent having medium frequency of church attendance, and only 20.6 per cent among those who attend church often.

Another recent study (Bainbridge 2004) analyzed data from 3,909 respondents to an online survey that included 20 putatively New Age statements in an agree-disagree format. A factor analysis grouped fully 15 of these items together, reflecting a high degree of unity. That is, people tended to respond to statements about these varied topics similarly, suggesting that they belong to a more-or-less unified subculture. Twelve of the 15 items were combined to make a reliable index, equally balanced between six items that New Age believers would agree with (positive items), and six they would tend to disagree with (negative items):

Positive statements:

Negative statements:

Respondents were also asked how religious they are on a 7-point scale, from 'extremely non-religious' to 'extremely religious.' Figure 12.1 shows that the relationship to religiousness of four representative beliefs is noticeably curvilinear.

The two solid lines across Figure 12.1 show the percentage agreeing with two positive statements: 'Some people really experience telepathy …' and 'There is much truth in astrology….' These two lines trace convex (hill-shaped) curves, indicating that people who are somewhat religious agree with these statements more often than people who are either extremely non-religious or extremely religious.

The two dashed lines show the percentage agreeing with two negative statements: 'Extrasensory perception (E. S. P.) probably does not **[p. 253 ↓]** exist.' 'Astrologers, palm readers, Tarot card readers, fortune tellers, and psychics can't really foresee the future.' These lines are concave (valley-shaped), indicating that people in the middle of the religious spectrum are less likely to agree with these negative beliefs. Thus, beliefs associated with the New Age have an ambivalent association with religion, and we see a similar ambivalence in the related cultural phenomena known as *parapsychology*, the *paranormal*, or *wild talents*.

Figure 12.1 Curvilinear relation between religiousness and New Age acceptance.
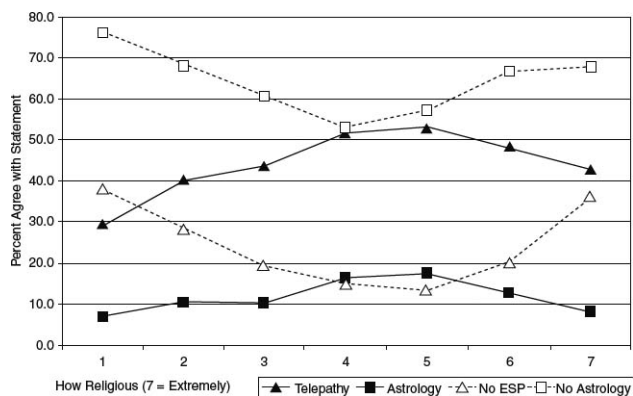
Pseudoscience and Parareligion

One of the remarkable facts about standard psychology textbooks is that hardly any of them cover parapsychology, considering it to be a pseudoscience unworthy of mention. Parapsychology could also be described as parareligion, because it postulates essentially supernatural phenomena that satisfy people's desires to transcend the material world. However, many self-identified *parapsychologists* argue strenuously that their discipline has no connection to religion (Felser 1999). Indeed, K. Ramakrishna Rao rejects any connection to the other topics associated with the occult or New Age:

> The general public often confuses parapsychology with spiritualism, ufology, astrological, palm- and tarot-card readings, hypnotic regression to 'past lives,' and a host of other occult practices. In contradistinction to these practices, however, parapsychology is concerned with 'psychic' abilities that can be studied empirically; that is to say, it is concerned with those abilities that can be studied by observation and experimentation under controlled conditions. Parapsychology, then, is the systematic and scientific study of psi (Rao 1984: 1).

For more than a century, there has been a grand debate between authors who claim that research demonstrates the reality of psi, ESP, and other paranormal phenomena (Rhine 1934, 1971; Beloff 1974; Edge *et al.* 1986), and others who argue that the apparent positive results are the result of error, poor experimental design, and even occasional fraud (Hansel 1966; Alcock 1981; Hyman 1989). In recent years, the parapsychology journals themselves **[p. 254 ↓]** have published a number of studies raising serious questions about the reality of the very phenomena they are dedicated to studying (Milton 1999).

A century ago, scientists were in the process of exploring the electromagnetic spectrum, and the general public was astonished by marvels such as X-Ray photography and radio that exploited wavelengths shorter or longer than the familiar octave that can be seen by the human eye. Thus it was not surprising that many writers imagined that spiritual phenomena might have a physical basis in as-yet undiscovered 'vibrations' or 'rays.' For example, in 1930 Upton Sinclair titled his book about telepathy, *Mental*

Radio. At the time, it was reasonable to hope that parapsychology could produce convincing results, and become a recognized branch of the larger discipline of psychology, perhaps based on a well-supported scientific theory of how paranormal phenomena operate. Today, that is a far fetched dream, because progress in physics and neurology did not uncover mechanisms that could account for ESP.

Despite the excuses that psi talents are rare, and that the people with these talents perform unreliably, the phenomenon would have been acknowledged by psychologists by now, if in fact it were real. Psychology is a vast and diverse collection of research approaches and schools of thought, lacking central authority and orthodoxy, so it could not have wrongfully excluded parapsychology for such a long time were there any scientific basis for psi (Kalat 1986).

Books, magazine articles, and television programs about ESP are audience cult artifacts, whereas professional psychics are client cult practitioners. Some cult movements incorporate ESP in their beliefs and practices. For example, the Process Church of the Final Judgement had a training activity called the Telepathy Developing Circle that sought to improve members' intuitive sensitivities (Bainbridge 1978), and that will be described in the next section. Despite its claim to be doing rigorous science, parapsychology tends to focus its experiments on things that are personally meaningful within an individual's private life. For example, many ESP experiments seek to replicate real-life situations in which people sometimes feel they have paranormal experiences, such as hearing the telephone ring and guessing who is calling (Sheldrake and Smart 2003), or sensing that you are being stared at (Evans and Thalbourne 1999).

Psychokinesis, also called *telekinesis*, is the alleged power to move or otherwise affect physical objects at a distance by means of the mind alone. If telepathy is extrasensory perception, psychokinesis is paranormal action. Just as extrasensory perception is abbreviated ESP by parapsychologists, psychokinesis is abbreviated PK. 'Mind over matter' is the principle of magic, whereas Western religions reserve for God the power to affect the real world by force of will alone.

Much stage magic mimics psychokinesis, when a magician levitates a scarf, or teleports a playing card into the pocket of a member of the audience. Many people believed that the magician Yuri Geller possessed the mental power to bend spoons, when he was

actually using the misdirection and prestidigitation tricks of a stage magician (Randi 1975; Marks 2000). While Geller performed other kinds of tricks, he was best known for spoon bending. Notice that spoons are ordinary household objects, used by every member of Western societies from earliest childhood, an intimate part of everyday life. A scientist, setting out to investigate whether the human mind can exert forces on physical objects, might never in a million years have thought about experimenting with spoon-bending.

In J. B. Rhine's famous PSI laboratory, a series of psychokinesis experiments were done by asking test subjects to influence rolling dice (L. E. Rhine 1971; Feather and Rhine 1971). Some care was invested in getting well balanced dice, because it is well known that so-called *loaded dice* will roll seven more often than expected by chance. But apparently little thought was given to the question of how PK could make dice come up seven, if indeed PK existed. Supposing the human mind can exert a slight force on physical objects, how can that force control the complex tumbling of a pair of dice? It would be an incredible engineering challenge to design a machine that could force **[p. 255 ↓]** ordinary dice to roll seven, for example by blowing air at them in carefully controlled ways. Merely calculating the rotation, bounces, and final resting position of a pair of dice is an incredibly difficult physical problem, let alone influencing them to give a desired result. But that is the key, actually, *desire*.

Like other forms of pseudoscience and parareligion, psychokinesis is about how people desire the world to be, and those desires are expressed in very human forms. Dice are cultural objects created by humans, and like a spoon they fit in the human hand. We want dice to come up lucky seven, as a metaphor for wanting good fortune in general. Humans want to influence humanly beneficial outcomes, not scientifically measurable ones. Dice are familiar things – found in the typical home – and their symbolism is clear. They are already part of human life, and are personally meaningful.

A great variety of PK experiments have been done, and naturally they vary in whether the methodology carries much humanistic symbolism, but very commonly they ask test subjects to accomplish a humanly desired outcome without having a clear conception of how a mental force could in fact do so. That is, they are experiments in magic.

Some experiments involve living organisms, and thus invoke the symbolism of a life force. For example, parapsychologists experiment with making plants grow more vigorously (Grad 1964), or preventing fungus from growing (Barry 1971). In one study, an experimenter hooked polygraphs to two philodendron plants and asked subjects to mentally 'increase the activity' in one plant but not the other, yet it is not clear what kind of force could do so, unless it is a life force unknown to modern biology (Brier 1971).

A physicist setting out to test PK would probably have designed laboratory instrumentation to measure the pressure of human thought with a finely tuned pendulum or torsion balance in a vacuum chamber, but that would conflict with the magical emphasis on human desires situated in everyday life. One experiment did ask people to influence the movement of a pendulum, but the experimenter commented that frequently the pendulum was covered so the subject could not see it clearly – thus being unable to aim that supposed mental force properly – and the subjects tended to focus on the counter that was supposed to register their successes (Cox 1971). Even in this case, parapsychology obscures the physical mechanism by which the mental force could operate and emphasizes the humanly desired outcome.

In recent years, parapsychologists have made extensive use of computers and other high-tech devices as instrumentation for their experiments. Helmut Schmidt asked research subjects to influence radioactive decay and the generation of electronic noise, each of which was part of a random-number generator that would determine which of a set of lights would flash (Schmidt 1970, 1973; Hyman 1989). Another study had subjects watch an animated dog race on the screen of a computer, and mentally try to make a particular dog win (Roe *et al.* 2003). Quite apart from whether a mental force exists or not, it seems implausible that human beings could aim it into the precise part of the hidden electronic components to affect the measurement device in the desired way. Again, the focus is on a humanly meaningful outcome, not on a clean test of a physical theory.

Religious Telepathy Training

One of the standard rituals of the Process Church of the Final Judgement, the Telepathy Developing Circle or TDC, will illustrate how the meaning of ESP adapts to

the goals and social context of the group that employs it (Bainbridge 1978: 197–202). Conventional religious organizations in modern societies tend to avoid practicing magic, if only because magical beliefs can be disproven empirically and thus risk discrediting the entire belief system. In contrast, religious beliefs like faith in the existence of God and the afterlife are difficult to disconfirm empirically. Telepathy can be tested experimentally, and thus is susceptible to empirical disconfirmation.

The fundamental aim of the Telepathy Developing Circle is to increase the sensitivity **[p. 256 ↓]** and awareness of participants. Processean leaders would explain that a telepath is not a mind reader who steals information from the thoughts of an unwilling victim, but a spiritually advanced person who can discern the mood of a person or group. Telepathy means becoming more aware, increasing sensitivity around other people, around objects, around environments. Telepathy means being able to understand what a person is feeling and going through, without talking about it, just by being near, picking up the person's moods and emotions.

However, the Process always left open the question how much it was dealing in psychology, and how much in religion, how much in natural talents of the human mind, and how much in the supernatural. For example, the Process asserted that God had broken apart into four co-equal gods: Lucifer, Jehovah, Christ, and Satan. Associated with each was a different human personality: Luciferian, Jehovian, Christian, and Satanic. Individual members could decide for themselves whether the gods were real supernatural beings, or metaphors for the different types of humans.

Processeans did tend to agree that two telepaths are capable of extremely intimate communication with each other. A group of telepaths has immense spiritual power which can be channeled either for good or evil. The TDC is designed to emphasize the beneficial aspects of sensitivity, awareness, and nonverbal communication. The following script for a TDC will allow interested readers to try it for themselves, and will illustrate how the supernatural concept of telepathy can be interpreted in actual practice.

An experienced spiritual Guide directs the Circle. Before the gathering, the Guide selects a concept for one of the meditations in the activity. Some actual meditation topics used by the Process in one or another Circle were 'the future of Humanity and your part in it,' 'mass destruction,' 'the end of the world,' and 'self If the group faces an

⑤SAGE knowledge

important decision, it can become the meditation topic. In the absence of a particular topic, the guide might select one of these 20 emotions as the meditation topic for the evening: Love, Fear, Joy, Sadness, Gratitude, Anger, Pleasure, Pain, Pride, Shame, Desire, Hate, Satisfaction, Frustration, Surprise, Boredom, Lust, Disgust, Excitement, or Indifference. If this Circle is one of a series, the Guide should cycle through all 20 before repeating one.

Depending upon the intensity of the experience and the number of participants, that we will call Novices here, a Telepathy Developing Circle can last from one hour to one and a half hours. The Circle can be done with as few as two people, or as many as three dozen. If more than seven people are present, the group should be divided into subgroups. Ideally, each subgroup should have an even number of people, usually six. One of the activities involves pairs, and if there is an odd number of Novices, the Guide can participate also, to complete the last pair. If this is the first time many of the participants have attended a Circle, the Guide may wish to quote some of the sentences above. If all of the participants have attended several Circles, the Guide may omit some of the instructions below.

Before the Guide enters, participants sit on cushions on the floor, arranged in a circle or a set of circles. The Guide enters and may stand or may sit on a high-backed straight chair, above the participants and able to see them all. The Guide says: 'Welcome. We have gathered to assist each other in developing spiritual sensitivity and awareness. We should not judge each other, but appreciate. We should not criticize, but gently encourage. This will be a safe place to communicate. All hostility, blame, demand, and envy are banished. Prepare to open your minds, your hearts, and your spirits.'

Now the Guide gives the first instruction: 'Begin by meditating on your aims for the evening. What do you wish to give to others? What do you wish to receive from them? Join hands, each of you with the two on either side.' (If there is a single circle, all join hands around. If there are several circles, members of each join hands in a separate ring.) 'Relax. Close your eyes. Make no effort. Let it come. Now begin the meditation.' After a short meditation, the Guide says: 'Come in now. Open your eyes. Release your hands.'

A round of the room follows 'When it is your turn, express the aims that came in **[p. 257 ↓]** your meditation. What do you wish to give? What do you wish to receive?' The Guide then calls each person by name, who answers with a brief phrase (such as: 'to give understanding and receive strength'). The Guide acknowledges whatever each person says, in a warm but dignified tone, using such acknowledgements as: good, right, okay, fine, indeed, sure, true, thank you.

The second part of the activity similarly asks each Novice to speak: 'Now we will have rounds on how your awareness and sensitivity have been during the past week.' (Or, if there are several circles, the Guide can say: 'Now we will have rounds in each of the smaller circles on how your awareness and sensitivity have been during the past week.') 'In turn, each person should say how his or her sensitivity has been developing, what kinds of things have been happening in the realm of emotional communication. Others may ask gentle, encouraging questions, to help the person express what he or she has been experiencing around sensitivity.' During this activity, the Guide may walk around the room, providing encouragement and making sure every person has a chance to say how his or her sensitivity has been.

The Guide says: 'All right? Has everyone finished? Good. Now we will meditate on the emotion of EMOTION (Substituting one of the following for 'EMOTION': Love, Fear, Joy, Sadness, Gratitude, Anger, Pleasure, Pain, Pride, Shame, Desire, Hate, Satisfaction, Frustration, Surprise, Boredom, Lust, Disgust, Excitement, or Indifference.) Close your eyes. Make no effort. Allow the EMOTION within you to rise into your consciousness. Now begin the meditation on EMOTION.' After five or ten minutes, the Guide says: 'Come in now. Open your eyes. We conclude the meditation on EMOTION. Now we will have rounds on what you saw or felt in your meditation on EMOTION.' (Or, if there are several circles, the Guide can say: 'Now we will have rounds in each of the smaller circles on what you saw or felt in your meditation on EMOTION.').

The Guide says: 'All right? Has everyone finished? Good. Did anyone get a particularly strong image around EMOTION?' The Guide encourages individuals to speak out, starting with two or three people the Guide knows will be comfortable speaking, calling on them by name. The Guide should use his or her own 'telepathic abilities' to sense who especially needs to express feelings to the entire group, calling on these individuals by name. The Guide should radiate acceptance, encouraging people to speak and

to feel that others have feelings similar to theirs, always acknowledging what people express. The Guide concludes this activity by summing up the feeling in the room around EMOTION.

Next comes a classic psychic practice: 'It is time now for psychometry, so each of you will pair off with another.' The Guide may go around the room, helping people pair off, when possible putting people together who do not know each other well or two people of the opposite sex. 'First, half of you will do a reading on an object belonging to the other person in your pair. It should be something the person has carried, something belonging to that person alone, that has absorbed some of the person's aura. Hold that object to your forehead, and images will flow into your mind. Describe those images to the other person. If the person does not have a suitable object, you may hold hands with them instead. When you are doing the reading, do not worry about whether you are picking up something about the person you are reading, because you will be.

'The main thing is to relax. Do not place any demands on yourself. Just relax and let the images flow in. They will come. If you come up against a block, the block is probably in the person that you are reading, so describe the feelings around the block. If you draw a complete blank, describe what you yourself are feeling, because you will probably be picking it up from the person you are reading. Now begin the psychometry.'

(The Guide may complete the last pair, if there is an odd number of Novices in the group, or may meditate on the vibrations in the room during the psychometry, if there is an even number.) The Guide lets the first psychometry reading go for about ten minutes, then says: 'All right. Bring that reading to a close.' The Guide waits briefly for people to conclude their readings.

[p. 258 ↓]

The Guide says: 'Now exchange roles in each pair. The person who gave the reading before will receive one now. The person who received the reading before will now take an object belonging to the other, and give a psychometry reading. Remember, if you open your mind and allow the images to flow, they will do so.' The Guide lets the second psychometry reading go for about ten minutes, then says: 'All right. Bring that reading to a close.' The Guide again waits briefly for people to conclude their readings.

'Now let us do a round of the room, about the images you received.' The Guide calls on several participants by name, asking how their readings went, and sympathizing with whatever they express.

The final activity of the TDC follows: 'In conclusion, meditate on what you have achieved during the evening. What did you give to others? What did you receive from them? Join hands, each of you with the two on either side. (If there is a single circle, all join hands around. If there are several circles, members of each join hands in a separate ring.) Relax. Close your eyes. Make no effort. Let it come. Now begin the meditation.' After a short meditation, the Guide says: 'Come in now. Open your eyes. Release your hands.'

The Guide says: 'In your private meditations over the next week, return to the images of this evening. Throughout every day, accept your feelings of EMOTION. Stretch out with your feelings to others. Allow your sensitivity and awareness to grow. The Telepathy Developing Circle is now ended.' The Guide departs. Then the Novices may talk with each other and gradually prepare to leave. The Novices share a quiet, informal social activity with each other, after the TDC.

For the Process, the TDC served several functions. By its very name, it claimed to be developing participants' telepathic powers. Perhaps it developed *empathy* rather than telepathy, encouraging people to use their proverbial five senses to feel the mood and emotions of other people, quite apart from whether a sixth sense exists. Another function was to build emotional bonds between the people, both as a group and as a network of dyads. By allowing people to express their feelings in the group setting, the TDC may also have been building commitment to the group. By couching the communications in paranormal terms, it may have built belief in the doctrines of the group. Indeed, the paranormal definition of the situation may have helped people express feelings and images, by dispelling normal inhibitions. For example, the images that arose in the psychometry activity were defined as real elements of the subject's aura, rather than being the thoughts of the reader, thus freeing the reader of responsibility for them.

The Telepathy Developing Circle encouraged the *willing suspension of disbelief*, rather than demanding belief. This simultaneously facilitated intimate communication among

participants, and embedded their feelings within the group's doctrinal structure. As people become emotionally invested in a cult (whether religious, client or audience), suspension of disbelief evolves into belief. The belief may in some mundane, factual sense be incorrect. As it serves functions for individual and group, however, it becomes valued, influential, perhaps even fanatically held. The question then becomes how disbelief could ever become central to a person's view of religion. This is the challenging question of Atheism.

Atheism

The social-scientific literature contains few significant studies of Atheism, in part because it is difficult to study a phenomenon that is both rare and unorganized. Historical research has been done within the history of ideas tradition (Campbell 1972; Turner 1985), but it is hard to do field observations of people who never meet for group activities, and even questionnaire research is limited by the cost of obtaining huge numbers of respondents. From 1988 through 2000, the General Social Survey asked 8,027 American adults what they believed about God. Only 2.5 per cent were Atheists who responded, 'I don't believe in God.' Another 4.0 per cent were Agnostics, responding 'I don't know whether there is a God and I don't believe there is any way to find out.'

[p. 259 ↓]

One would like to use data like this to explore the factors inspiring a small minority of the population to become Atheists, but the 203 Atheistic GSS respondents were polled in six different years, when the survey contained different items, so there are too few cases to run many of the correlations we would wish. The standard GSS demographic items do reveal a few basic facts. Atheists are more common among men (3.7 per cent) than among women (1.7 per cent), and among college graduates (4.0 per cent) than among people who have not completed four years of college (2.1 per cent). Combining the two variables, Atheists constitute 5.1 per cent of male college graduates, but only 1.3 per cent of female non-graduates. Using data from the Eurobarometer surveys, as well as the GSS, Bernadette Hayes (2000) reported that religious independents (including Atheists) tend to be male and well-educated.

Numerous secular intellectuals believe that Atheism is on the rise, as science and other secularizing forces progressively erode both the functions and plausibility of traditional religious faiths. In contrast, Rodney Stark and Roger Finke (2000) have distinguished the level of Atheism in society, which they think may be roughly constant, from the visibility of Atheism in public life, which may vary over time. A key factor may be the degree of repression Atheists experience in different countries and eras.

The GSS contains three items purportedly measuring the willingness of the general population to grant Atheists civil rights, but the items are not precisely about Atheists. All three refer to 'somebody who is against all churches and religion.' One asks, 'If such a person wanted to make a speech in your (city/town/community) against churches and religion, should he be allowed to speak, or not?' The second item asks, 'Should such a person be allowed to teach in a college or university, or not?' And the third inquires, 'If some people in your community suggested that a book he wrote against churches and religion should be taken out of your public library, would you favor removing this book, or not?' Nearly a third (30.6 per cent) of the US population would ban an anti-religion speech, fully 50.3 per cent do not want such a person teaching in college, and 33.4 per cent want Atheistic books banned from the public library. Nobody today burns Atheists at the stake in Western societies, but in the US an Atheist will frequently interact with people who oppose his right to express his fundamental beliefs. Atheists may be immune to the fear of God, but as potential victims of prejudice they have good reason to fear other people's belief in God.

These observations immediately suggest a perspective for explaining Atheism, namely *control theory* (Hirschi 1969). People will tend to conform to other people's expectations, for example accepting the majority belief in God, unless they are weak in social bonds and thus relatively free to deviate. Of course, this does not explain how the majority got to be religious in the first place. However, given that religiousness is the norm, control theory would explain why some individuals failed to share it. A classic statistical study of schizophrenia found that this form of mental deviance was more common in socially disorganized areas (Faris and Dunham 1939), but the analogy with the mental deviance of Atheism would seem far fetched. Old Australian census data suggest that Atheists are more common among people who have moved away from their region of birth and thus may be weak in the social ties that restrain deviant behavior (Bainbridge 1989b).

To date, however, really convincing empirical tests of the control theory of Atheism have not been performed.

A different theory that has some elements in common with control theory suggests that Atheism is encouraged by weakness in social obligations. Religion gains strength from the social obligations people incur in intimate social relationships, because it offers a way of meeting those obligations even when it is impossible for a person to satisfy the needs of other persons in a practical manner (Bainbridge 2002, 2003b). For example, a friend or family member may be dying. Those close to him or her have an obligation to help, but there may be no way they can save the person. Therefore, they offer religious compensators instead. If the dying person expresses some faith in the **[p. 260 ↓]** compensators, then their obligation to help is satisfied by praying God to take the soul of the dying person.

This *social obligation theory* is consistent with the frequent observation that women are less likely to be Atheists, because traditionally (and perhaps biologically) women are more nurturant and take on greater social obligations within the family. A recent study based on a very large international online questionnaire found several pieces of evidence that seemed to support this theory (Bainbridge 2005a). For example, Atheism was more common among childless adults, and less common among adults with two or more children. For other examples, 4,742 people responded to a series of questions, starting: 'How much would you like to do the following activities?' The list included two measures of closeness to family: 'A large family reunion' and 'A family history field trip.' Table 12.3 shows that Atheists are much more common among the people who express negative feelings about family activities.

Social obligation theory is different from control theory, in that it primarily concerns very strong relationships rather than all kinds of stable bonds, and in that it does not take religiousness for granted. Rather, it builds on the compensator theory of religion outlined in Table 12.2, by suggesting that there are two distinguishable processes through which compensators may generate religiousness, the first psychological and the second sociological:

One might argue that some people are so satisfied with their lives that they do not need religious compensators: young, healthy, rich people. But this is not a very good

explanation of Atheism, because all people are deprived to some extent, and all face the ultimate deprivation of death. Nonetheless a weakened need for primary compensation may facilitate conversion to Atheism when assisted by a lack of need for secondary compensation among people who are deficient in strong social obligations. Other factors may weaken social obligations. A high divorce rate or a low fertility rate will mean that fewer people have family obligations. A high level of economic development provides many impersonal supports, such as health insurance and social services, that reduce interpersonal obligations. A welfare state robs social obligations from its citizens, whether or not it successfully fulfills these obligations itself. And to the extent that secularism weakens religious faith, it also weakens the plausibility of compensators required for secondary compensation.

Nonetheless, people fervently desire things they cannot have. Unlike religion, Atheism promises nothing, unless possibly some pride Atheists may feel in accepting 'the truth' when other people surrender to the wishful thinking of faith in the supernatural. Very recently, a loosely organized but vigorous movement has arisen that is compatible with Atheism yet offers hope comparable to that of religion. A common name for this movement is *Transhumanism*, although the World Transhumanist Association (http://www.transhumanism.org) is but one of a number of differently named organizations that together constitute the movement. Another term is *Extropian*, coined by the Extropy Institute, that is devoted to 'designing the means for resolving technological and cultural issues of transhumanity' (http://www.extropy.org). Some observers suggest that Transhumanism is more egalitarian than Extropianism, chiefly on the issue of whether all humans can collectively evolve to a higher **[p. 261 ↓]** level, rather than only a small elite evolving and possibly leaving the human species altogether.

	Not at all	Not really	Mixed feelings	Would like	Like very much
Family reunion	15.9%	9.8%	9.1%	5.7%	3.4%
Family trip	14.4%	9.8%	7.3%	6.3%	4.9%

The fundamental principle of Transhumanism is the confidence that science and technology can transform human nature, over the very near future, even perhaps

eradicating death (Immortality Institute 2004). For Transhumanists, our species has entered a revolutionary period of transition from human to super-human nature. During the transition, hope in rapid technological progress can substitute for religious faith. After the historical transition, people will have no use for gods, because they will be godlike themselves.

Few Transhumanists beat the drum of Atheism, because they are more interested in promoting the positive things that they believe, rather than refuting the beliefs of others. Yet Transhumanist leaders have expressed concern that religion will attempt to suppress transformative technologies, as it may already be doing with human cloning and stem cell research (Hughes 2004; Bainbridge 2003a, 2005b). Transhumanists and Atheists alike assert that science supports their doctrines.

Science rejects tenets of the New Age and parapsychology, such as astrology and telepathy, yet it does not reject Atheism. Indeed, science is methodologically Atheist, seeing how far it can get in explaining the world without reference to the supernatural. For a century, most scientists have found it impolitic to criticize religion, all the more so after popularly elected governments became the main supporters of pure science. This situation is most acute in the United States, where there is considerable debate over whether the Republican Party has become a vehicle for religious opposition to science, especially social science and socially relevant areas of biology and environmental science, because it seeks to represent the substantial fraction of Americans who are Evangelicals (Larsen 1992; Mooney 2005). An Atheist might argue that it is the obligation of science to test the theories of religion, as it tests all other theories, but in the twentieth century the sciences strenuously avoided taking on that potentially costly challenge. The twenty-first century may tell a different story.

Convergence of Secular Culture

The New Age, paranormal, and Atheist phenomena are taking place in a cultural environment where the long-submerged tensions between religion and science are beginning to resurface. Ideas corrosive of religious faith are already well-developed in diverse areas such as cosmology, evolution, cognitive science, and artificial intelligence. Now, the merging of science and technologies – called *consilience* or *convergence* –

closes the loopholes where a 'God of the gaps' might survive. That is, the truce between science and religion has been facilitated by the very fragmentation of science itself, but now secular science is developing a comprehensive model of existence that may more directly challenge religion. At the same time, small but vigorous movements have arisen to promote technologies that challenge religion's monopoly on transcendence and immortality: Transhumanists, Extropians, and related groups. The result may be an environment more conducive to new religious movements, parareligion, and irreligion.

As Stark and Finke (2000) noted, the social and behavioral sciences appear to encourage Atheism, and we are all familiar with Freud's writings against religion, notably *The future of an illusion* (Freud 1927). Several theories of religion have been proposed recently within cognitive science that might have some relevance for Atheism. At this point we can neither integrate them satisfactorily with the compensator theory, nor decide between them on the basis of empirical evidence. However, to the extent that religious faith can be explained without reference to any actual supernatural forces, the existence of such forces becomes less plausible.

To begin with, the dominant model of the mind in cognitive science holds that it is merely the sum of the complex behavior of neurons in the brain. Of course, so simply put, this is merely the old argument that human behavior is the result of brain functions, which has been a challenge to religion for many years (Ray 1863, 1871). However, considerable progress has been achieved in recent years understanding **[p. 262 ↓]** how the brain does in fact function. At the same time, computer and information scientists have made progress duplicating some (but by no means all) of those functions in machines.

A common conception that unites neuro-science and artificial intelligence is *neural networks*, and it has proved possible to model fundamental dynamics of the social-scientific theory of religion in computers (Bainbridge 1995, 2006), which manifestly lack souls. Clearly, cognitive science has a long way to go before it can fully explain human cognitive and emotional phenomena, but researchers in the field are confident that they are on the right track, and that the approach has no need of the concept of *soul*.

Atheism by definition is a belief that God does not exist, but the existence of God is not the only question. The major world religions assume not merely that a supernatural

realm exists, but that a portion of each human being is supernatural. Cognitive science may be able to prove that this idea is false. Perhaps more socially important, by applying methods based on neural networks to the treatment of human beings and to technologies that directly serve millions of humans (Stein and Lidik 1998; Quinlan 2003; Schultz 2003), cognitive science may convince a significant segment of the general public that souls do not exist.

Cognitive science has simultaneously offered its own explanations for why people believe in such things as gods or souls. A number of cognitive scientists suggest that evolution placed a sufficiently high priority on humans possessing social skills, that our mind naturally interprets complex phenomena in the non-human world as if they were the result of purposeful action of conscious beings (Pinker 1997; Boyer 2002; Atran 2002; Barrett 2004). If so, humans are innately predisposed to imagine that supernatural beings are responsible for natural processes. If true, this could reinforce the part of the compensator theory that explores how explanations are exchanged between humans, and over time give rise to belief in general compensators based on assumptions about exchanges with supernatural beings.

Very recently, Paul Bloom (2004a, 2004b) has offered a considerable amount and variety of experimental and observational evidence that humans' brains are so constructed that we are bound to be dualists, like the French philosopher René Descartes, believing that we ourselves are somehow separate from our bodies. The human brain is not directly conscious of its own mental processes, and because the brain uses somewhat different modules to handle the social versus physical worlds, we naturally perceive ourselves as both subject and object, thus soul and body. Bloom explicitly argues that his research refutes religion. Of course any body of research may be wrong, but the work of cognitive scientists like Bloom and Pinker is closely integrated with other top-quality research in the field; they have published highly-publicized popular books, and a number of practical applications may also give their ideas very wide currency.

More controversial, but useful as an example of a different research approach, is the work of Eugene d'Aquili and Andrew Newberg (Newberg *et al*. 2001), who have used brain scan methods to seek the structures in the brain that are involved in religious experiences. A core idea of their theory is that a mystical sense of oneness with God

can result when what they call the *orientation association area* of the brain experiences sensory deprivation. They claim that this brain module orients the self in space and helps distinguish the self from the rest of the universe. D'Aquili and Newberg have been criticized for failing to use up-to-date brain scan methods, and for ignoring recent literature in the field, but potentially their idea could be integrated into other cognitive science theories that religion is merely an error of perception, an accident of evolution and brain structure. In fact, D'Aquili and Newberg do not argue this. They leave open the possibility that the religious experiences are real, and that evolution may have designed the brain structures to permit religious experiences (either because they are real or because religion benefits humans). This may be another reason their work is controversial within cognitive science yet has generated much interest within theology (d'Aquili and Newberg 2000).

Cognitive science is one of the four fields of science and technology that appear to be **[p. 263 ↓]** merging in what Mihail Roco and I have called *convergence* (Roco and Bainbridge 2003; Roco and Montemagno 2004; Bainbridge and Roco 2005): nanotechnology, biotechnology, information technology, and cognitive science. From their initials, these are called the NBIC fields. Edward O. Wilson (1998; cf. Dennett 1995), has called the unification of the sciences *consilience*, and points out that it poses an entirely new intensity of challenge for religion. Previously, people could ignore the contradictions between science and religion, because science was fragmented, and each piece employed different principles. True unification of science, on the basis of a set of principles that apply across fields and achieve success both in explaining the world and in transforming it, could be extremely inimical to religion, if (as the compensator theory suggests) religion thrives where human comprehension and control are most limited.

Convergence of three of the four fields is already well advanced. Nanoscience examines the structure and behavior of matter at the nanoscale – the size range from 1 to 100 nanometers or billionths of a meter. The nanoscale structures inside the living cell that make biology possible are now being understood as molecular machines. Genetic engineering is based on increasingly rich knowledge about the DNA that carries the code of inheritance and is less than three nanometers across. The smallest components of computer chips are now less than 100 nanometers across, and high-density information storage already depends upon nanotechnology. Biomimetic

computing, such as genetic algorithms and evolutionary programming, provide models of how all the complexity of nature could arise mechanistically. At the same time, computers are essential for research and design of both living and non-living creations, notably bioin-formatics and nanoinformatics. Through nanotechnology, biotechnology, and information technology, the wonders of nature are being subsumed within human creativity. As people gain the power to create the world anew, they lose faith that a creator must be supernatural.

Convergence with the fourth field, cognitive science, is only now beginning, and the result is likely to be even more profound. Human consciousness is rooted in our biologically evolved neural network that senses and manipulates information through processes at the nanoscale and above. When the rhodopsin pigment in the eye intercepts light, the molecule changes shape by a few nanometers, thereby passing information to the neurons. The neu-rotransmitter chemicals that communicate across the brain cells are stored in vesicles perhaps 50 nanometers across, and move a similar distance from one neuron to another. Computer vision has yet to duplicate human eyesight, but machines already can see, recognize movement, identify objects, and plan their own path through a complex environment.

Information technology pioneer Ray Kurzweil (1999) may have been overly optimistic when he predicted that machine intelligence will surpass human intelligence before the middle of the twenty-first century, but he was prescient when he called them *spiritual machines*. Consciousness is merely information about existence, processed in an information system that must make decisions and take actions. Whether humans will finally learn the truth about themselves and their universe during this century, it is possible to discern a new vision of ourselves that is emerging in connection with NBIC convergence: Human personalities are dynamic patterns of information. Although embodied in matter – currently in flesh but potentially in silicon – personalities are non-material. *Information* is simply the modern word for *spirit*.

Conclusion

Social scientists have suggested that organized religion performs a variety of functions for human beings: providing comfort to desperate individuals, strengthening social

solidarity, and supporting morality, among others. To be sure, there remain many empirical questions about how well religion actually performs these functions. For example, church membership apparently deters larceny far better than homicide, thus providing very uneven support for morality (Bainbridge 1989a; Stark and **[p. 264 ↓]** Bainbridge 1996). However, given that religion performs some of the hypothesized functions at least somewhat well, what would be the consequence if the disorganized faith of the New Age or the faithlessness of Atheism became very popular? The simple answer is that society would suffer. A slightly more complex answer is that an increase in parareligion and Atheism could erode factors like social solidarity that themselves support religion, leading to a feedback loop in which the weakness of organized religion causes even more weakness.

An answer at a higher level of sophistication is that decline of religion as traditionally defined could open opportunities for entirely fresh responses to the challenges of human existence, of which Transhumanism and Extropianism might possibly be foreshadowings. It is unlikely that technology could overcome death and all forms of deprivation in the near future, but the growth of artificial intelligence and genetic engineering could discredit religions that assume souls and deny evolution. Through convergence, the NBIC technologies may have so much impact on everyday life that it is impossible for many people to ignore the materialistic assumptions of the sciences on which they rely. Thus, we may be entering a period when innovative religions arise, embracing some of the new scientific ideas. It remains to be seen whether science-oriented religions or secular culture will be able to create new social forms to support solidarity and morality. If they succeed in doing so in the future, then the term *New Age* will take on an entirely new and more significant meaning.

Notes

1. The views expressed in this essay do not necessarily represent the views of the National Science Foundation or the United States.

William Sims Bainbridge[1]

References

Alcock, J. E. 1981. Parapsychology: Science or magic? Oxford: Pergamon.

Atran, S. 2002. In gods we trust: The evolutionary landscape of religion . Oxford: Oxford University Press.

Bainbridge, W. S. 1978. Satan's power . Berkeley: University of California Press.

Bainbridge, W. S. 'The religious ecology of deviance' . American Sociological Review vol. 54 pp. 288–95. 1989a. http://dx.doi.org/10.2307/2095796

Bainbridge, W. S. 1989b. 'Wandering souls' . In G. K. Zollschan, ed. , J. F. Schumaker, ed. , and G. F. Walsh (eds), Exploring the paranormal , pp. pp. 237–49. Bridport, Dorset, England: Prism.

Bainbridge, W S. 'Neural network models of religious belief . Sociological Perspectives vol. 38 pp. 483–95. 1995.

Bainbridge, W. S. 1997. 'The New Age' . In The sociology of religious movements , pp. pp. 363–91. New York: Routledge.

Bainbridge, W S. 2002. A prophet's reward: Dynamics of religious exchange' . In T. G. Jelen (ed.), Sacred markets, sacred canopies , pp. pp. 63–89. Lanham, MD: Rowman and Littlefield.

Bainbridge, W S. 'Religious opposition to cloning' . Journal of Evolution and Technology vol. 13 2003a. (http://www.jetpress.org/volume13/bainbridge.html).

Bainbridge, W. S. 2003b. 'Sacred algorithms: Exchange theory of religious claims.' In D. Bromley, ed. , and L. Greil (eds), Defining religion , pp. pp. 21–37. Amsterdam: JAI Elsevier.

Bainbridge, W S. 'After the New Age' . Journal for the Scientific Study of Religion vol. 433 pp. 381–94. 2004.

SAGE knowledge

Bainbridge, W. S. 'Atheism' Interdisciplinary Journal of Research on Religion 2005a. http://www.bepress.com/ijrr/vol1/iss1/art2/

Bainbridge, W. S. 'The Transhuman heresy' Journal of Evolution and Technology 2005b. http://www.jetpress.org/)

Bainbridge, W. S. 2006. God from the machine . Lanham, MD: AltaMira.

Bainbridge, W. S., and Roco, M. C. 2005. Converging technologies for human progress . Berlin: Springer.

Barrett, J. L. 2004. Why would anyone believe in God? Walnut Creek, CA: AltaMira.

Barry, J. 1971. 'Retarding fungus growth by PK' . In J. B. Rhine (ed.). Progress in parapsychology , pp. pp. 118–21. Durham, NC: Parapsychology Press.

Beloff, J. (ed.) 1974. New directions in parapsychology . Metuchen, NJ: Scarecrow Press.

Bloom, P. 2004a. Decartes' baby: How the science of child development explains what makes us human . New York: Basic Books.

Bloom, P. 'The duel between body and soul' . New York Times vol. 154 pp. A27. 2004b. 52968 September 10

Bok, B. J., and Mayall, M. W. 'Scientists look at astrology' . Scientific Monthly vol. 523 pp. 233–44. 1941.

Boyer, P. 2002. Religion explained: The evolutionary origins of religious thought . New York: Basic Books.

Brier, R. 1971. 'PK effect on a plant-polygraph system' . In J. B. Rhine (ed.), Progress in parapsychology , pp. pp. 102–17. Durham, NC: Parapsychology Press.

Campbell, C. 1972. Toward a sociology of irreligion . New York: Herder and Herder.

SAGE knowledge

Cox, W. E. 1971. 'PK on a pendulum system' . In J. B. Rhine (ed.), Progress in parapsychology pp. pp. 97–101. Durham, NC: Parapsychology Press.

d'Aquili, E., and Newberg, A. 'The neuropsychology of aesthetic, spiritual, and mystical states' . Zygon vol. 35 pp. 39–52. 2000. http://dx.doi.org/10.1111/0591-2385.00258

Dennett, D. C. 1995. Darwin's dangerous idea . New York: Simon and Schuster.

Edge, H. L., Morris, R. L., Rush, J. H., and Palmer, J. 1986. Foundations of parapsychology . Boston: Routledge and Kegan Paul.

Evans, L., and Thalbourne, M. A. 'The feeling of being stared at: A parapsychological investigation' . Journal of the American Society for Psychical Research vol. 93 pp. 309– 25. 1999.

Faris, Robert E. L., and Dunham, H. W. 1939. Mental disorders in urban areas . Chicago: University of Chicago Press.

Feather, S. R., and Rhine, L. E. 1971. 'A helper-hinder comparison' . In J. B. Rhine (ed.), Progress in parapsychology , pp. pp. 86–96. Durham, NC: Parapsychology Press.

Felser, J. M. 'Parapsychology without religion' . Journal of the American Society for Psychical Research vol. 93 pp. 259–79. 1999.

Freud, S. 1927. The future of an illusion . Garden City, New York: Doubleday [1961].

Gad, I. 1994. Tarot and individuation . York Beach, Maine: Nicolas-Hays.

Grad, B. 'A telekinetic effect on plant growth: II experiments involving treatment of saline in stoppered bottles' . International Journal of Parapsychology vol. 64 pp. 473–94. 1964.

Hansel, C. E. M. 1966. ESP – a scientific evaluation . New York: Scribner's.

Hayes, B. C. 'Religious Independents Within Western Industrialized Nations: A Socio-Demographic Profile' . Sociology of Religion vol. 61 pp. 191–207. 2000. http://dx.doi.org/10.2307/3712285

Heindel, M., and Heindel, A. F. 1922. The message of the stars . Oceanside, CA: Rosicrucian Fellowship.

Hirschi, T. 1969. Causes of delinquency . Berkeley, University of California Press.

Hughes, J. H. 2004. Citizen cyborg . Cambridge, MA: Westview.

Hyman, R. 1989. The elusive quarry: A scientific appraisal of psychical research . Buffalo, NY: Prometheus.

Immortality Institute 2004. The scientific conquest of death . Libros En Red.

Introvigne, M. 1999. 'Damanhur: A magical community in Italy' . In B. Wilson, ed. , and J. Cresswell (eds), New religious movements: Challenge and response , pp. pp. 183–94. London: Routledge.

Kalat, J. 1986. Introduction to psychology . Belmont, CA: Wadsworth.

Kurzweil, R. 1999. The age of spiritual machines: When computers exceed human intelligence . New York: Viking.

Larsen, O. N. 1992. Milestones and millstones: Social science at the National Science Foundation, 1945–1991 . New Brunswick, NJ: Transaction Publishers.

Malinowski, B. 1948. Magic, science and religion . Garden City, New York: Doubleday.

Marks, D. 2000. The psychology of the psychic . Amherst, NY: Prometheus.

McIntosh, C. 1969. The astrologers and their creed . New York: Praeger.

Melton, J. G. 2000. 'The New Age' . In R. Landes (ed.), Encyclopedia of millennialism and millennial movements , pp. pp. 285–88. New York: Routledge.

Milton, J. 'Should ganzfeld research continue to be crucial in the search for a replicable PSI effect?' Journal of Parapsychology vol. 63 pp. 309–33. 1999.

Mooney, C. 2005. The Republican war on science . New York: Basic Books.

Newberg, A., d'Aquili, E., and Rause, V. 2001. Why God won't go away . New York: Ballantine.

Orenstein, A. 'Religion and Paranormal Belief . Journal for the Scientific Study of Religion vol. 412 pp. 301–11. 2002.

Pinker, S. 1997. How the mind works . New York: Norton.

Quinlan, P. T. (ed.) 2003. Connectionist models of development: Developmental processes in real and artificial neural networks . New York: Psychology Press.

Randi, J. 1975. The magic of Uri Geller . New York: Ballantine.

Rao, K. R. (ed.) 1984. The basic experiments in parapsychology . Jefferson, NC: McFarland.

Ray, I. 1863. Mental hygiene . Boston: Ticknor and Fields.

Ray, I. 1871. Treatise on the medical jurisprudence of insanity . Boston: Little, Brown and Company.

Rhine, J. B. 1934. Extra-sensory perception . Boston: Bruce Humphries [1964]. http://dx.doi.org/10.1037/13314-000

Rhine, J. B. (ed.) 1971. Progress in parapsychology . Durham, NC: Parapsychology Press.

Rhine, L. E. 1971. 'PK in the laboratory: A survey' . In J. B. Rhine (ed.), Progress in parapsychology , pp. pp. 72–85. Durham, NC: Parapsychology Press.

Roco, M. C., ed. , and Bainbridge, W. S. (eds) 2003. Converging technologies for improving human performance . Dordrecht, Netherlands: Kluwer.

Roco, M. C., ed. , and Montemagno, C. D. (eds) 2004. The coevolution of human potential and converging technologies . New York: New York Academy of Sciences, Annals of the New York Academy of Sciences, volume 1013 .

Roe, C. A., Davey, R., and Stevens, P. 'Are ESP and PK aspects of a unitary phenomenon? A preliminary test of the relationship between ESP and PK' . Journal of Parapsychology vol. 67 pp. 343–66. 2003.

Saliba, J. A. 2003. Understanding new religious movements . Walnut Creek, CA: Alta Mira.

Schmidt, H. 'A quantum mechanical random number generator for psi tests' . Journal of Parapsychology vol. 34 pp. 219–25. 1970.

Schmidt, H. 'PK tests with a high-speed random number generator' . Journal of Parapsychology vol. 37 pp. 105–19. 1973.

Schultz, T. R. 2003. Computational developmental psychology . Cambridge, MA: MIT Press.

Sheldrake, R., and Smart, P. 'Videotaped experiments on telephone telepathy' . Journal of Parapsychology vol. 67 pp. 147–66. 2003.

Sinclair, U. 1930. Mental radio . New York: Boni.

Stark, R., and Finke, R. 2000. Acts of faith . Berkeley, CA: University of California Press.

Stark, R., and Bainbridge, W. S. 1985. The future of religion . Berkeley, CA: University of California Press.

Stark, R., and Bainbridge, W. S. 1987. A theory of religion . New York: Lang & Toronto Studies in Religion.

Stark, R., and Bainbridge, W. S. 1996. Religion, deviance and social control . New York: Routledge.

Stein, D. J., ed. , and Lidik, J. (eds.) 1998. Neural networks and psychopathology . Cambridge, UK: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511547195

Tobacyk, J., and Milford, G. 'Belief in paranormal phenomena: Assessment instrument development and implications for personality functioning' . Journal of Personality and Social Psychology vol. 44 pp. 1029–37. 1983. http://dx.doi.org/10.1037/0022-3514.44.5.1029

Toulmin, S., and Goodfield, J. 1962. The fabric of the heavens: The development of astronomy and dynamics . New York: Harper.

Turner, J. 1985. Without God, without creed: The origins of unbelief in America . Baltimore, MD: Johns Hopkins University Press.

Wilson, E. O. 1998. Consilience: The unity of knowledge . New York: Knopf.

10.4135/9781848607965.n13