This article was downloaded by:[Rossano, Matt J.]

On: 27 June 2008

Access Details: [subscription number 794512085]

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



International Journal for the Psychology of Religion Publication details, including instructions for authors and subscription information:

http://www.informaworld.com/smpp/title~content=t775653664

The Moral Faculty: Does Religion Promote "Moral Expertise"?

Matt J. Rossano a

^a Department of Psychology, Southeastern Louisiana University,

Online Publication Date: 01 July 2008

To cite this Article: Rossano, Matt J. (2008) 'The Moral Faculty: Does Religion Promote "Moral Expertise"?', International Journal for the Psychology of Religion, 18:3, 169 — 194

To link to this article: DOI: 10.1080/10508610802115727

URL: http://dx.doi.org/10.1080/10508610802115727

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.informaworld.com/terms-and-conditions-of-access.pdf

This article maybe used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

The International Journal for the Psychology of Religion, 18:169–194, 2008 Copyright © Taylor & Francis Group, LLC ISSN: 1050-8619 print/1532-7582 online DOI: 10.1080/10508610802115727



THEORY

The Moral Faculty: Does Religion Promote "Moral Expertise"?

Matt J. Rossano

Department of Psychology Southeastern Louisiana University

Research on the moral faculty indicates that morality emerges naturally over the course of normal human development, similar to other competencies such as face perception, language, numerical reasoning, and some motor skills (running, jumping, etc.). One implication of this is that there should be a roughly normal distribution of moral skills. Thus, while most people develop competent moral skills, a few fail to develop these skills and a few develop them to an "expert" level. The skill development literature indicates that deliberate practice is necessary for the acquisition of expertise. Religious participation appears to provide the basic elements of deliberate "moral practice." Empirical evidence is reviewed supporting the notion that religion provides the means and opportunity for the acquisition of moral expertise. A program of research into moral expertise is proposed with testable hypotheses presented.

The argument to be presented can be summarized as follows: Recent research on the moral faculty indicates that morality is a naturally emerging competency. This puts morality in the same category as other naturally emerging competencies such as face perception, language, numerical reasoning, and some

motor skills (walking, running, jumping, etc.). These competencies are typically characterized by a roughly normal distribution of abilities, with most people developing some level of acceptable functionality, whereas far fewer are either functionally impaired or extraordinarily capable (the experts). Concentrating on just the expert end of the distribution, research on skill development indicates that deliberate practice is essential to the acquisition of expertise. The core elements of deliberate practice are present in the moral teachings, activities, and rituals of the world's religious traditions. Empirical evidence supports the notion that religious practice facilitates the acquisition of moral expertise. In this article, each of these points is discussed and defended, and a framework for future research on religion and moral expertise is outlined with testable hypotheses proposed.

DEFINING MORALITY

The "moral faculty" refers to how morality develops. Before discussing this, morality itself must be defined. Traditionally, morality has been understood as a set of rules for guiding behavior (e.g., the Decalogue, the Eightfold path, "do unto others ...", etc.). At least as far back as Aristotle, morality has also been viewed as a set of character virtues (e.g., honesty, courage, temperance, etc.) that incline one toward honorable behavior and contribute to human flourishing. More recently, philosophers and social scientists have investigated morality as the reasoning process behind an ethically justifiable conclusion or action (e.g., Why is it right for Hans to steal the medicine for his ailing wife?). For current purposes, all three of these aspects of morality—rules, virtues, and reasoning are relevant. Morality is here defined as the cultivation and application of virtue. In this definition, the "cultivation of virtue" refers to the development of character traits that motivate moral action, whereas the "application of virtue" refers to both an understanding of moral rules and proper reasoning about which rules apply in what situations. Thus, in agreement with Zagzebski (1996, p. 113-115), this article holds that morality is motivational (wanting to do what's right), cognitive (knowing what the right thing is), and behavioral (possessing the skills to execute the right action).

Although the terms *morality* and *altruism* are closely connected, for present purposes they are not synonymous. Altruism is acting for the benefit of another without expectation of reciprocation. As just outlined, morality is broader, encompassing not just the altruistic act itself but the motivation behind it and the principle supporting it. Indeed, an isolated "altruistic" act might not necessarily be moral if, for example, it served only to reinforce a destructive dependency (giving an alcoholic money to buy a drink). Morality is also not the same as spirituality. As defined by Zinnbauer and Pargament (2005, p. 35), spirituality

involves a search for the sacred, often occurring outside of traditional religious contexts. Moral behavior is very likely part of that search, but the search is often broader including such things as artistic endeavors, philosophic reading, and community involvement.

Finally, it needs to be recognized that morality evolved as a means of organizing local, often kin-based social relationships (Krebs, 2005; Richerson & Boyd, 2001; Ridley, 1996). Thus, for the vast majority of our evolutionary history, morality was tribal or within-group morality—it pertained exclusively to how other members of the tribe were to be treated. The same moral regard was not extended to the members of other tribes. The ease with which out-group members have been dehumanized and brutalized thought human history is the legacy of this evolutionary origin. Furthermore, religion has often served as a support mechanism for within-group morality and the building of strong intragroup coalitions (Durkeim, 1912/1965; Irons, 2001; Kirkpatrick, 2005; Rossano, 2007; Wilson, 2002). Although it obviously seems more moral to be universalistic than tribalistic (treat all with the same moral consideration regardless of group status), it is not easily done given our basic groupish nature and the cultural differences often encountered when defining "right" and "wrong."

THE MORAL FACULTY

Recently, many scholars have summarized the evidence supporting the notion of a natural moral faculty (Broom, 2003; Hauser, 2006; Joyce, 2006; Krebs, 2005; Ridley, 1996; Sober & Wilson, 1998). This moral faculty is thought to be one of a collection of intuitive ontologies—competencies that emerge spontaneously over the course of normal human development (Boyer & Barrett, 2005). Other such competencies include skills such as language, face perception, numerical reasoning, categorization, and some motor skills (e.g., running and jumping). Although moral thinking shares many features in common with these other competencies, its closest kinship is thought to be with language (Hauser, 2006, pp. 36-37, 112, 156). For example, over the course of development, infants and children show an evolved hypersensitivity to both linguistically and morally relevant inputs (Baldwin, Markman, Bill, Desiardins, & Irwin, 1996; Harris & Nunez, 1996; Markman & Hutchinson, 1984; Nunez & Harris, 1998). More significantly, both morality and language show a combination of universals and culture-specific variations. Although different languages vary in their structure, underlying universals in development, recursive grammar, and biological foundations also exist.

So too with morality—universals in fundamental moral principles are present, but the application of moral rules shows culture specificity. For example, crossculturally parents are expected to care and nurture their children; neglect and indifference toward one's offspring are universally condemned. However, specific conditions when abandonment might be morally permissible vary. Among many hunter-gatherers, those conditions might be when the infant is weak and sickly and food is scarce, whereas in Western societies it might be when the mother is a cocaine-addicted teenager and an adoptive couple is readily available. Other moral universals with culture-specific parameter variations appear to be present as well, such as a bias for regarding intended harm as more culpable than unintended harm and a concern for equity in reciprocal exchanges (Hauser, 2006, pp. 122–131; Henrich et al., 2001; O'Neill & Petrinovich, 1998).

These naturally emerging competencies are commonly characterized by a broadly normal distribution of abilities (Geary, 2005, pp. 257, 334–335). For example, consider language skills: While the vast majority of people acquire varying levels of functional competence, far smaller numbers are either linguistically impaired (abused/neglected children, familial dyphasics, etc.) or extraordinarily capable (great orators, prize-winning playwrights and novelists, etc.). Or consider running and jumping skills: To varying degrees, nearly all humans can run and jump; small numbers, however, are either functionally impaired (e.g., cerebral palsy or spina bifida victims) or highly skilled (e.g., Olympic sprinters or ballet dancers).

The same type of distribution should characterized moral functioning. Although the vast majority develops competent moral skills (i.e., they get along in society and form close personal relationships), a rare few should be either incompetent (sociopaths, psychopaths, etc.; Blair, 1995; Blair, Jones, Clark & Smith, 1997) or extraordinarily capable (moral "experts"). Thus, an important implication of the moral faculty is the idea that moral expertise exists (actually or potentially) in the population. Studying moral experts and the process whereby moral expertise is acquired can provide valuable insights into the human moral sense. Already, a sizeable literature exists addressing the process of skill development across a varied array of domains (Abernethy, 1987; Ericsson & Lehmann, 1996). This literature provides a framework for studying the acquisition of moral expertise.

MORAL EXPERTISE

Viewing morality as a perfectible natural ability is not new. In his *Nicomachean Ethics*, Aristotle (n.d.) contended that the virtuous person makes right behavior a habit and this habit is trainable:

Moral virtue comes about as a result of habit.... Neither by nature, then, nor contrary to nature do the virtues arise in us; rather we are adapted by nature to receive them, and are made perfect by habit.... The virtues we get by first exercising

them, as also happens in the case of the arts.... Men become builders by building and lyre players by playing the lyre; so too we become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts. (book 2, chap. 1)

Later scholars including Thomas Aquinas and Thomas Jefferson followed in this tradition. As with Aristotle, Jefferson (1787/1955) argued that our moral sense may be "strengthened by exercise as may a particular limb of the body" (p. 15). These analogies to physical development are instructive. Just as one can perfect physical skills to an elite level (such as a pro-caliber golf swing or an Olympic-level backstroke), one can develop expert-level moral skills.

Recent research offers at least three empirical lines of support for the notion that moral skills can be perfected with practice. First, Baumeister and colleagues (Baumeister & Exline, 1999; Muraven & Baumeister, 2000; Muraven, Baumeister, & Tice, 1999) provide evidence that self-control is central to virtuous behavior, and self-control exhibits features analogous to a muscle. For example, it can suffer "fatigue"—when two sequential tasks require self-control, performance on the second declines. More important, self-control also exhibits long-term "strengthening" with exercise—participants required to practice acts of self-control over a 2-week period performed better than control participants on a follow-up self-control task. Furthermore, motivation can also heighten selfcontrol's endurance (Muraven & Slessareva, 2003). These studies have religious implications. Religious practices that require self-restraint (e.g., attending church rather than sleeping in, not taking the Lord's name in vain) and religious ideas that motivate that restraint (e.g., salvation, eternal damnation, divine judgment, etc.) may over time strengthen the self-control muscle facilitating moral behavior.

A second line of evidence involves spirituality and wisdom, both of which are universally viewed as morally virtuous (Peterson & Seligman, 2004). Recent evidence indicates that spirituality can be understood as a form of intelligence and wisdom as a type of skill-based expert knowledge, and both can be enhanced through social interaction and observation (Baltes & Staudinger, 2000; Emmons, 2000; Oman & Thoresen, 2003; Staudinger & Baltes, 1996). For example, Staudinger and Baltes found that participants' performance on dilemmas used to measure wisdom improved significantly when they were allowed social collaboration followed by integrative reflection (as opposed to just individual reflection). This was true even if the collaboration was entirely internal, that is, conversing with a wise "inner voice" (as is not uncommon in prayer).

A third line of evidence can be found in intervention programs with at-risk children. Programs designed to increase children's empathetic awareness, social skills, self-control, and social problem solving have been found to significantly reduce discipline and delinquency problems in 3- and 5-year follow-up assessments (Conduct Problems Prevention Research Group, 2002; Ialongo, Poduska, Werthamer, & Kellam, 2001).

Collectively, these studies show that certain practices enhance morally relevant character traits or abilities such as self-control, wisdom, social intelligence, and empathy. Furthermore, the practices that fortify these abilities are common in religious settings. Thus, religion's behavioral obligations and proscriptions, motivational concepts, and meditative rituals may act as morality enhancers by cultivating self-control, empathy, and social reasoning. Although biological endowment plays a role in the development of these abilities, training is also essential. A growing literature on skill development has uncovered the principles by which this training ultimately produces expertise.

THE ACQUISITION OF SKILLED PERFORMANCE AND EXPERTISE

Modern empirical work on the development of expertise can be traced back to the pioneering studies of de Groot (1946), who found that chess experts were far superior to novices in their ability to select the best moves after a brief examination of the chessboard. In succeeding decades, studies have scrutinized expertise in a wide range of sports, professions, and other activities, including chess (Charness, 1989; Chase & Simon, 1973), medical diagnosis (Elstein, Shulman, & Sprafka, 1990), computer programming (Adelson & Soloway, 1985; Jeffries, Turner, Polson, & Atwood, 1981), music (Ericsson, Krampe, & Tesch-Romer, 1993; Sloboda, 1991), cricket (Lamb & Burwitz, 1988; McLeod & Jenkins, 1991), table tennis (Bootsma & van Wieringen, 1990), snooker (Abernethy, Neal, & Koning, 1994), and volleyball (Allard & Starkes, 1980). This body of literature has concluded that a particular activity, called deliberate practice, is essential to the acquisition of expertise (see reviews in Ericsson, 2002; Ericsson & Lehmann, 1996). In fact, the extent of deliberate practice is directly related to the ultimate level of skill attained (Ericsson, 2002).

DELIBERATE PRACTICE

Deliberate practice is a unique form of activity, distinguishable from both work and play, where goal-directed, concentrated effort is expended to improve specific mental and physical skills. It has three important characteristics:

- The critical evaluation of one's current skill state against that of a more skilled model.
- 2. The constant focus on the elevation, not maintenance, of skill.
- 3. The maintenance of conscious, voluntary control over the target behavior.

Evaluation of Current Skill State Against More Skilled Model

In their analysis of chess expertise, Charness, Krampe, and Mayr (1996) found that future chess grand masters improved their skills by spending countless hours studying the games of past masters. While studying a game, they would predict the grand master's moves in various situations. When their predictions differed from the master, they would review the chessboard to uncover what the master had seen that they had missed. Through repeated iterations of analysis, review, and self-critical evaluation, future chess experts trained themselves to "see" and "think" as a grand master. Whatever the specific skill, constant self-monitoring and self-evaluation (often with the aid of a teacher or coach) are necessary to progress.

Although early stages of skill acquisition focus on emulating the model, later stages shift to producing desired outcomes. In other words, as mental and physical skills develop, one increasingly concentrates on results (Zimmerman, 2002). Thus at first, a tennis novice closely watches a model's backhand and concentrates on properly executing the movement. Then, as the movement becomes more natural, the novice's concentration shifts to placing the ball in desired locations.

Focus on Elevation Not Maintenance of Skill

Elevating skill often involves repetitious exercises; however, deliberate practice is not mindless repetition (Ericsson, 2002, p. 29). Once a skill has been acquired, there is a natural tendency toward automatization (Anderson, 1987). At this point, repetitious, less rigorous practice is usually enough to maintain one's skill. Deliberate practice, however, requires that the individual resist total skill automation by constantly challenging himself or herself with new goals and more effective behaviors. Expert pianists, for example, often purposely rehearse an already-learned piece at an excruciatingly slow tempo, thus forcing themselves to concentrate on individual notes and the relationships among them.

Maintenance of Conscious Control Over Behavior

Moving from a current skill level to a higher one requires that potential experts retain some degree of conscious control over target behaviors. This control allows experts to respond effectively to unexpected circumstances or (in the case of sports) the responses of competitors. Lehmann and Ericsson (1997) demonstrated this "retention of control" in a study where expert pianists, in the course of playing a memorized piece, were unexpectedly required to skip every other measure, or play with only one hand, or even transpose the piece

into another key. Despite these changes and the novel movement patterns they entailed, the accuracy of the pianists' performance remained high. Thus, they were not just running off automated motor routines but were flexibly controlling stored knowledge to meet task demands.

Along with these three core features, Ericsson (1996) identified some other important characteristics of deliberate practice: (a) It involves activity that is at a difficulty level appropriate but challenging to the individual's current skills, (b) it provides informative feedback concerning the individual's success in attaining new skill levels, (c) it provides opportunities for repetition of new skills, and (d) it provides opportunities for the correction of errors as skills are being learned.

Three important summary points emerge concerning deliberate practice and expertise. First, deliberate practice is necessary for skill acquisition (although it may or may not be sufficient; Ericsson & Charness, 1994; Sternberg, Grigorenko, & Ferrari, 2002). Second, what separates elite performers from average performers is the effort and duration of deliberate practice. The average person drops deliberate practice for a less rigorous, more repetitious form of practice once an acceptable level of competence is achieved. Experts continue deliberate practice for a much longer time, possibly indefinitely, to advance skill to a superlative level (Ericsson, 2002). Finally, deliberate practice requires effort and focused attention. So demanding is this activity that only a few hours of it can be sustained in a day's time before rest is required (Ericsson et al., 1993).

The literature on skill development is clear: To achieve expertise one must engage in deliberate practice. Therefore if one is to achieve moral expertise, then one must engage in deliberate moral practice. But where and how does this type of practice take place? In the next section I argue that currently the most common setting for this type of practice is a religious one.

DEFINING RELIGION

Arguments over the definition of religion have continued for years (see recent discussions in Paloutzian & Park, 2005; Zinnbauer & Pargament, 2005). Recently, many definitions have focused on religion as a meaning system or as a search for meaning or sacredness, and evidence suggests that religion holds a privileged status in this domain (Pargament, Magyar-Russell, & Murray-Swank, 2005). The current article adopts Zinnbauer and Pargment's definition for religiousness: "a personal or group search for the sacred that unfolds within a traditional sacred context" (p. 35). For current purposes, the "traditional sacred context" refers to the global institutional religions and their "systems of belief, practices, and values." It is this traditional context that distinguishes religion (or religiousness) from spirituality (Zinnbauer & Pargament, 2005). Morality, then, can be understood as a *means* of searching. Thus, it is unsurprising that

among the global religious traditions both moral codes and rituals of worship that reinforce those codes are nearly universal characteristics (Bowker, 2003, pp. 6–10; Monroe, 1995, pp. 13–21).

WHY BE A MORAL EXPERT?

Deliberate practice is demanding. For some pursuits (e.g., sports, medicine, music, etc.), extrinsic rewards in fame and finances can motivate the effort necessary for the development of expertise. There are, however, few extrinsic rewards for moral expertise. In fact, the opposite is often true (Colby & Damon, 1992, pp. 67–69). Past studies have shown that religion can be a strong motivator (Bushman, Ridge, Das, Key, & Busath, 2007; Mayer & Sharp, 1962; Nielsen, 2002; Rosen, 1950; Wuthnow, 1994). The fact that nearly all religions link moral conduct with the rewards and punishments of this life or the next makes them potentially potent moral motivators. This leads to a prediction that, compared to skeptics, the religiously devout are more likely to expend energy monitoring, analyzing, and critiquing their moral lives, resulting in the elevation of their moral skills.

It is important, however, not to confuse this elevation of moral skill with morality per se. Religion is not necessary for morality. A secular environment can produce competent moral skills just as a religious one can. Again consider the language analogy. Given a healthy biological endowment and rearing environment, a child will naturally develop competent linguistic skills. The same is true for moral abilities—that is what the moral faculty is all about. However, just as there are only a select few who hone their linguistic skills to the point of being a Nobel Prize nominee, only a few will hone their moral skills to an analogous level. It is here that religion becomes relevant.

RELIGION AS DELIBERATE MORAL PRACTICE

Although religious rituals and practices vary widely, a number of underlying commonalities are present, and these strongly suggest that religion is well positioned as a setting for deliberate moral practice. Nearly all of the global religions have some moral standard to which members are expected to adhere or aspire. That standard may be embodied in the life and deeds of an individual (Jesus, Buddha), an authoritative set of laws or teachings (the Torah, the Dharma Sastras), or the collective example set by a tradition's holy people (Christian saints, Jewish sages, gurus, bodhisattvas, etc.). Furthermore, religion surrounds these standards and role models with powerful rituals and injunctions creating a

particularly effective social learning context (see Oman & Thoresen, 2003, for discussion).

Second, nearly all religions require members to regularly engage in self-critical reflection on their success or failure in adhering to this standard. For example, weekly Mass attendance is obligatory for faithful Catholics, and the Mass always begins with the Penitentiary Rite, where members call to mind their sins and ask for forgiveness. Synagogue worship among Jews includes the Amidah or Shemona Esrei prayer where one approaches God offering praise and requesting forgiveness. Faithful Muslims pray five times daily, called Salat. Salat is not just for worship but to keep the believer safe from social wrong and moral deviancy (Qur'an 29:45). Recited before each prayer is the sura al-Fatiha, a verse from the Qur'an asking for God's mercy and guidance to follow the right path. Christian, Jewish, and Muslim worship services also include some form of authoritative preaching by a priest, minister, imam, or rabbi. Oftentimes, this preaching examines some aspect of the religion's moral teaching and how that teaching should be practiced in daily life.

Finally, nearly all religions offer opportunities for acts of self-sacrifice, either through required monetary giving (Zakat in the Muslim tradition, tithing in the Christian tradition) or through acts of volunteerism (working in soup kitchens, visiting the sick and elderly, working on church committees, etc.). In the Sikh tradition, a central element of community worship is langar, where the faithful gather in the temple to prepare and serve vegetarian food for free to others regardless of race, religion, or caste.

Thus, common to the practice of most major religions are the key elements of deliberate practice: (a) regular evaluation of moral behavior against a standard, (b) continual study of the moral standard to elevate moral skill, (c) conscious deliberation over both moral shortcomings and strategies for overcoming them, and (d) opportunities to consciously exercise moral action in the community. This is not to say that all devotees engage these elements with the seriousness necessary to promote real moral growth. For many (maybe most) the rituals become routinized and lose their force. The important point, however, is that the rituals provide the means and opportunity for deliberate "moral practice."

Individually, the elements just listed do not make religion unique. Secular moral teachings (e.g., utilitarianism) and models could be substituted and studied in place of strictly religious ones. Furthermore, numerous secular groups engage in charitable acts. Religion's uniqueness is that it combines these characteristics and requires that members practice them on a regular basis. By way of highlighting this, consider the following question. Are there any purely secular groups that require members to (a) gather together regularly to evaluate their moral behavior against some agreed-upon standard, (b) listen to lessons and exhortations designed to deepen their understanding of that moral standard and motivate them to more effectively put the moral standard into action, and

(c) practice their moral precepts through organization-sponsored charity and volunteerism? Even if such secular groups exist, it seems a safe bet that they pale in size and influence compared to the world's religions. This leads to another potentially testable hypothesis: Given that deliberate practice sharpens skills and religion appears to provide the elements for the deliberate practice of moral skills, then currently the context most likely to produce moral expertise is a religious one.

RELIGION AND MORAL EXPERTISE

A Study of Moral Exemplars

One way of testing the hypothesis that religion provides a natural setting for the development of moral expertise is to identify moral experts and see if religious people dominate their ranks. Anecdotally, the most commonly cited moral paragons are often religious—Gandhi, Mother Teresa, Albert Schweitzer, and so on. To my knowledge only one empirical study has attempted to identify and analyze moral experts, or what the authors called "moral exemplars." Psychologists Ann Colby and William Damon (1992) worked with a panel of moral scholars (moral philosophers, theologians, historians, professional ethicists, social scientists, etc.) to both establish a set of criteria for identifying moral exemplars and nominate candidates who fulfilled the criteria. In the end, the panel selected 24 moral exemplars for intensive study (one of whom was forced to drop out prior to completion of the study).

Curiously, none of these exemplars stood out in terms of moral reasoning capacity; instead it was their character and behavior that made them extraordinary. For current purposes however, the relevant finding from the study was this: For 19 of the 24 moral exemplars (about 80%), religion was a significant force behind their moral attitudes and actions (Colby & Damon, 1992, pp. 78–80, 279–281). This finding surprised the authors: "Almost 80% of the exemplars attributed their core value commitments to their religious faith. This was an intriguing and unexpected finding—our nominating criteria, after all, reflected nothing that was directly religious in nature" (Colby & Damon, 1992, p. 78).

The Moral Virtues

A second possible test of the religion/moral expertise hypothesis can be done by reviewing the current literature on religion and moral behavior. Peterson and Seligman (2004) provided a framework for this analysis by identifying what they call the "High Six" moral virtues. After extensive cross-cultural and historical analyses, they identified six traits that were universally and historically admired

as virtuous: wisdom, courage, humanity, justice, temperance, and transcendence. Each of these moral virtues is expressed through a number of character strengths. The character strengths are the specific psychological/behavioral routes by which a moral virtue is displayed. So, for example, wisdom is expressed in open-mindedness, curiosity, creativity, love of learning, and perspective. The moral virtues are listed next with a brief definition and the character strengths associated with each (from Peterson & Seligman, 2004, pp. 29–30).

- Wisdom: cognitive strengths that entail the acquisition and use of knowledge. Character strengths of wisdom: creativity, curiosity, open-mindedness, love of learning, and perspective.
- 2. *Courage*: emotional strengths that involve the exercise of will to accomplish goals in the face of opposition. Character strengths of courage: bravery, persistence, integrity, and vitality.
- 3. *Humanity*: interpersonal strengths that involve tending and befriending others. Character strengths of humanity: love, kindness, and social intelligence.
- 4. *Justice*: civic strengths that underlie healthy community life. Character strengths of justice: citizenship, fairness, and leadership.
- 5. *Temperance*: strengths that protect against excess. Character strengths of temperance: forgiveness, humility, prudence, and self-regulation.
- 6. *Transcendence*: strengths that forge connections to the larger universe and provide meaning. Character strengths of transcendence: appreciation of beauty and excellence, gratitude, hope, humor, and spirituality.

The religion/moral expertise hypothesis would predict that religion would contribute positively to the development of these moral virtues. An exhaustive evaluation of each character strength is beyond the scope of this article. However, a survey of each moral virtue targeting one to three of the associated character strengths reveals the general trend, which is largely supportive of the hypothesis.

Wisdom. Peterson and Seligman (2004, p. 29) defined wisdom (as expressed through perspective) as the ability to give good counsel to others, having ways of looking at the world that makes sense to oneself and others. I know of no studies directly addressing the question of whether religion makes people wise. However, as mentioned before, Staudinger and Baltes (1996) measured wisdom using a series of social dilemmas. They found that participants' performance on the dilemmas improved when they were allowed social collaboration along with a period for reflective integration (i.e., they interacted with others on the content of the dilemma and were subsequently allowed time to think about the interaction). The result that was particularly relevant to religion was that the facilitating effect

of the social collaboration/reflective integration condition was present even when the social collaboration was entirely internal—that is, participants were allowed to have a "virtual" conversation with a "wise other" that they envisioned in their heads. In many religious traditions, prayer is construed as a "conversation" with God. To the extent that religious rituals and teaching encourage reflective prayer when facing difficult choices, they may be facilitating the development of wisdom. This may be why some wise moral exemplars (e.g., Ghandi) claimed that prayer was as central to their functioning as breathing and eating.

The fact that religion typically forms the backbone of any culture's storehouse of collective wisdom would also seem to attest to the strong connection between religion and wisdom building. In Eastern traditions, for example, the writings of Confucius, Lao-tzu, and Buddhist texts hold prominence as canonical sources of wisdom. Likewise in the West, any list of Great Books is typically populated with religious writings such as books from the Bible (Ecclesiastes, Proverbs, etc.) or the writings of Augustine, Aquinas, Maimonides, Dante, and others. Furthermore, even the writings of Plato and Aristotle, though not overtly religious, assume a divine realm that gives order and purpose to existence. Thus, throughout human history, acquiring wisdom and pondering religious texts frequently went hand in hand.

Courage (as measured by the character strength of bravery). Stark (1996, pp. 83-94) argued that courage played a major role in the early growth of Christianity. Christians, far more so than pagans, were willing to remain in Rome during a plague and care for the sick, helping their own members to survive and attracting converts. In their study of moral exemplars, Colby and Damon (1992) used "a willingness to risk one's self interest for the sake of one's moral principles" (p. 29) as a selection criterion. Unsurprisingly then, all of their moral exemplars had endured some hardship in the course of remaining true to their moral ideals. These hardships included the voluntary abrogation of material or financial gain, estrangement from family and friends, loss of jobs, and the threat of physical harm. Given that the vast majority of these exemplars were religiously motivated, it seems reasonable to assume that religion played some role in inspiring the courage necessary for them to face these hardships. Interestingly, however, nearly all the exemplars (21) disavowed being courageous. Instead, they attributed their actions to a sense of duty based on an unwavering moral certainty.

Humanity (as measured by love and social intelligence). According to Peterson and Seligman (2004), the moral virtue of humanity is exhibited through the character strengths of love and social intelligence. These strengths should contribute to the success of long-term social relationships. Thus, if religion builds humanity (by making people more loving and socially intelligent),

then we might expect religious people to have more satisfying and successful marriages compared those who are not religious. Empirical evidence supports this expectation. Both church attendance and the personal relevance of religion are positively correlated with marital satisfaction (Mahoney, Pargament, Tarakeshwar, & Swank, 2001). Religious couples communicate more effectively and use better conflict resolution strategies compared to nonreligious couples (Brody, Stoneman, Flor, & McCrary, 1994; Mahoney et al., 1999). Rates of domestic violence and marital infidelity are typically lower among religious couples, while their divorce rates run anywhere from 13 to 16 percentage points lower as well (Ellison, Bartkowski, & Anderson, 1999; Fergusson, Horowood, Kershaw, & Shannon, 1986; Mahoney et al., 2001; see review in Mahoney & Tarakeshwar, 2005). In general, religious people are more likely to get married, stay married, and provide a stable supportive atmosphere for successful child rearing (Strawbridge, Shema, Cohen, & Kaplan, 2001).

Humanity (as measured by kindness or compassion). In their now-famous "good Samaritan" study, Darley and Batson (1973) found that less than half of seminary students were willing to stop and aid a debilitated man, suggesting that religion and compassion were not tightly connected. In more recent years, however, Batson and colleagues (Batson, Eidelman, Higley, & Russell, 2001; Batson, Floyd, Meyer, & Winner, 1999) have produced evidence that the "quest" religious orientation might be a foundation for universal compassion. The quest orientation is a "seeking" orientation, defined by an openness to questioning and an appreciation of wonder and mystery (Batson, Shoenrade, & Ventis, 1993). This attitude is often contrasted with the Intrinsic orientation (true, committed believers) and Extrinsic (those who participate in religion for practical, utilitarian purposes). Questers, unlike the other orientations, appear to be more likely to offer aid based on another's need rather than a desire to appear helpful (Batson et al., 2001; Batson et al., 1999; see however, Goldfried & Miner, 2002).

Justice (as measured by citizenship). One way that the moral virtue of justice is put into practice is through citizenship—the exercise of social responsibility (Peterson & Seligman, 2004). Numerous studies have shown that religious people engage in more charitable giving and volunteerism than do nonreligious (see reviews in Brooks, 2003, and Monsma, 2007). This is especially true when it comes to giving to religious-based charities and may even be the case for purely secular ones (although this is controversial). Clearly, the religious give more to secular charities than the nonreligious give to religious-based charities. This same appears to be true for volunteerism. The religious also rate high in other areas of citizenship including voting, political involvement, and political knowledge. Furthermore, religion and religious institutions contribute positively

to the "social capital" that strengthens a healthy community (Social Capital Survey, 2001). Monsma (2007) concluded his review thusly:

These findings reveal that religiously committed people who give and volunteer are also active citizens. As such, they may constitute the chief exemplars of civic responsibility. Those, who by several measures, are religiously active and committed are the citizens who are likeliest to give to and volunteer for religiously based community causes. Moreover, they give and volunteer to about the same extent as the irreligious respondents do to secularly based community causes.... As a rule, religionists live out more facets of civic responsibility than do the irreligious. (p. 26)

Temperance (measured by forgiveness and humility). Although there is evidence that religious people place a higher value on forgiveness (McCullough & Worthington, 1999; Rokeach, 1973) and they tend to think and reason more about forgiveness compare to nonreligious people (Enright, Santos, & Al-Mabuk, 1989), establishing a relationship between religion and the actual act of forgiving has been more challenging. Some studies have found that increased religiosity is positively correlated with self-reports of forgiving, increased motivation to forgive, and a decreased tendency to harbor resentment (Gorsuch & Hao, 1993; Mullet et al., 2003). Religion's role, however, appears to be stronger in terms of a general tendency to forgive as opposed to the likelihood of forgiving any specific transgression (referred to as the "religion–forgiveness discrepancy"; McCullough & Worthington, 1999; Tsang, McCullough, & Hoyt, 2005).

McCullough, Bono, and Root (2005) summarized their review of the forgiveness literature by tentatively concluding that "religious individuals are, in general, slightly more forgiving than are less religious people, although the association is rather small" (p. 399). Of interest, in Colby and Damon's (1992) study of moral exemplars, the 3 most forgiving of the 24 exemplars were all devoutly religious, whereas the three least forgiving were all nonreligious (pp. 276–278). Finally, a second character strength associated with temperance humility—has also been shown to be positively connected with religiousness, especially those categorized as "quest" religionists (Cline & Richard, 1965; Rowatt, Ottenbreit, Nesselroade, & Cunningham, 2002).

Temperance (as measured by self-control). Numerous studies have found weak to moderate negative correlations between religion and such antisocial behaviors as substance abuse, delinquency, and criminality (Koenig, McGue, Krueger, & Bouchard, 2007; see review in Spilka, Hood, Hunsberger, & Gorsuch, 2003, pp. 422–428). With regard to alcohol abuse, Cochran (1993) found (not surprisingly) that the negative association was strongest among those denominations that specifically condemn alcohol, suggesting that religious doctrine was not trivial in promoting self-restraint. Religion also appears to

reduce levels of promiscuity and extramarital sexual relations (Benson, Donahue, & Erickson, 1989; also see review in Spilka et al., 2003, pp. 428–432). This finding may help explain why the religious tend to have relatively stable, happy marriages, compared to the nonreligious, who are more likely to be single or divorced (Bock & Radelet, 1988; Filsinger & Wilson, 1984; Gruber, 2005).

Benson (1992) concluded his review on religion and antisocial behavior by pointing directly to religion's role in discouraging self-destructive behaviors by "promoting environmental and psychological assets that constrain risk-taking" (p. 218) and "[using] a system of norms and values that favor personal restraint" (p. 216). It is this "personal restraint" coupled with the tendency of religious people to be service minded that may account for religion's role as a promoter of community harmony. Indeed, studies have shown that religious communities are often more cohesive and enduring than comparable secular ones (Sosis, 2000; Sosis & Bressler, 2003; Sosis & Ruffle, 2003).

Transcendence (as measured by gratitude). Not only has gratitude been identified as one of the character strengths that contributes to the virtue of transcendence, but philosophical and empirical work connects it to moral functioning as well (McCullough, Kilpatrick, Emmons, & Larson, 2001). A recent study found that measures of dispositional gratitude were positively correlated with an array of religious/spiritual variables (McCullough, Emmons, & Tsang, 2002). Thus, those higher in religiosity or spiritualism tend to be more strongly inclined to experience gratitude compared to their more secular counterparts.

Transcendence (as measured by hope). Hope is a second character strength associated with transcendence. The hope engendered by religious faith may be an important factor meditating the generally positive association between religion and well-being (Snyder, Sigmon, & Feldman, 2002). It is interesting to note that hopefulness, as reflected by sermon content, liturgical expression, and participant outlook, tends to increase as dominations grow in fundamentalism (Sethi & Seligman, 1993). This finding held across all three Abrahamaic faiths—Christian, Jewish, and Muslim.

Transcendence (as measured by spirituality or a sense of purpose). It would seem self-evidence that religious people would be more "spiritual" than nonreligious. However, for Peterson and Seligman (2004), spiritualism refers to the idea that one's life fits within a larger cosmic order or purpose. In this regard it is interesting that in one of the world's most secular nations (Iceland), adolescents high in religious participation perceive the world as a more coherent place compared to those low in religious participation (Bjarnason, 1998). Thus, even when the prevailing culture is religiously indifferent (Iceland's

rate of church attendance is about 2%, lowest among Nordic nations; Verweij, Ester, & Nauta, 1997), religion's power to provide an organizing framework for interpreting one's existence remains strong.

LIMITATIONS AND SUMMARY

Limitations of both generalizability and methodology exist in the literature just reviewed. Regarding generalizability, most of studies have involved young adult/university student samples from Christian background. Further studies using different populations are needed to ensure broad generalizability. Regarding methodology, most of the studies cited have relied on self-reports, which can potentially suffer from social desirability effects such as when a religious person slants his or her responses to appear to be in conformity with religious teachings. Some of this may be present in the religion–forgiveness discrepancy described earlier (McCullough & Worthington, 1999).

Some studies have attempted to provide confirmatory measures to supplement self-reports. For example, Brody et al. (1994) used direct observations to confirmed self-report data on the better communication and conflict resolving strategies of religious married couples. McCullough et al. (2002) used both self-reports and peer reports to substantiate the association between spirituality/religiousness and the disposition toward gratitude. Finally, in place of self-reports of religious attendance, Gruber (2005) identified a reliable covariate of religious attendance, religious market density, which he then correlated with objectively determined outcome measures such as divorce rates, income levels, college degrees, welfare payments, and so on. As with the Brody et al. and McCullough et al. (2002) studies, Gruber's results provided strong support for patterns previously found using self-reports. Although these studies are encouraging, more confirmatory analyses such as these are needed to strengthen the literature.

Mindful of these limitations, the observed pattern is, nonetheless, notable and fairly consistent. Empirical work to date largely supports the hypothesis that religion plays a positive role in the development of universal moral virtues. Furthermore, religious people dominate the ranks of those considered to be moral exemplars.

Religion's Negative Effects

Although religion appears to offer a fertile ground for the development of moral expertise, some aspects of religion have the potential to work in precisely the opposite direction. For example, the negative beliefs about oneself and humanity fostered by concepts such as original sin or divine punishment can

lead to counterproductive coping strategies, which may thwart attempts at self-improvement and even endanger well-being (Ano & Vasconcelles, 2005; Exline, 2002; Pargament et al., 1990; Pargament, Koenig, Tarakeshwar, & Hahn, 2001). Similarly, taken to an extreme, religious practices designed to promote self-control can produced a destructive obsessiveness, such as when fasting leads to anorexic symptoms (Wulff, 1991, pp. 63–64).

Religion has also been associated with prejudicial attitudes, although the relationship is complex. A number of studies have found that "extrinsically" religious people tend to be more prejudiced against out-groups and minorities compared to nonreligious people (see review in Donahue & Nielsen, 2005; Morrison & Morrison, 2002). Furthermore, fundamentalism and right-wing authoritarianism tend to be highly correlated (Altemeyer & Hunsberger, 2005). Intrinsic religion, however, is generally uncorrelated with prejudice. This finding has usually been viewed negatively with regard to religion's impact on morality, given that the religion is showing no tendency to reduce prejudicial attitudes, and may (as in the case of extrinsics) be exacerbating them.

Religion's association with honesty is also complex and not necessarily positive. Although religion is a good predictor of one's attitude about honesty (that it is a good thing), the evidence that religious people are actually more honest is inconsistent (Donahue & Nielsen, 2005). One study, in fact, suggested that students in a religious school were more likely to cheat than those in a secular one (Guttman, 1984). Finally, there is evidence that fundamentalist beliefs among both Jews and Christians are associated with a greater likelihood of child abuse (Bottoms, Nielsen, Murray & Filipas, 2004; Shor, 1998). Furthermore, when religion can be cited as justification for aggression, perpetrators may be compelled to even greater levels of violence (Bushman et al., 2007). All of this reinforces the fact that religion is a multifaceted phenomenon that can interact in complex and not always positive ways with different individuals under different circumstances.

Secular Groups and the Development of Moral Expertise

Religion's negative effects suggest that it may have some weakness in transmitting certain aspects of morality. Could secular environments provide an alternative venue for the development of moral expertise? Shermer (2005) argued that science provides evidence of a cosmos of increasing social complexity. This inspiring image, coupled with an ethic of enlightened happiness and liberty—always seeking one's happiness and liberty in concert with (and never in conflict with) the happiness and liberty of others—could provide the basis for a potent secular morality. In principle, secular groups could adopt this ideal as their moral standard and exemplify it through practical lessons, stories, and specific rules of behavior. Some elements of this may already be present in certain civic (e.g.,

Rotary Club) or environmental (e.g., Roots and Shoots) groups. Regular meetings of these groups might provide opportunities for moral review, refinement, and practice.

Furthermore, though a setting might be technically secular, an intermingling of religious and secular values and practices may still be present. Many work-place environments include regular (and often ritualized) gatherings to invigorate employee morale, review important policies or standards, and deal with organization-related ethical issues such as customer satisfaction or employee relations. The presence of moral experts within these groups (some of whom may be religiously trained) could provide role models for others' edification.

These examples show that secular environments are certainly not bereft of morality or the opportunities for moral learning. However, one would suspect that the moral lessons of secular groups are more narrowly drawn compared to religion. For example, a civic or environmental group will likely confine its morality to civic or environmental concerns. Workplace ethics deals with workplace issues. Indeed, it is nearly impossible to find a meaning system more comprehensive than religion (Emmons, 2005; Silberman, 2005). Along with the challenges of establishing agreement on moral principles and gathering regularly to review and reflect on those principles, another difficult challenge for secular environments would be ensuring that their moral training addresses the full range of human experiences.

Directions for Future Research

In this article I argued that the motivational incentives and training opportunities that nurture and encourage the development of moral expertise are largely religious in nature. From within this framework, a reasonably clear agenda for future research presents itself.

First, research must clearly define and operationalize moral expertise. Is it to be understood in a relative or universal sense? The fact that Peterson and Seligman (2004) were able to derive six cross-cultural moral virtues reinforces the presence of deep commonalities across global religious/cultural traditions. This suggests that cross-culturally moral experts may share much in common. However, cultural differences in morality should not be casually dismissed. For example, Jesus's model of righteous anger in the cleansing of the temple and the Thomistic doctrine of "just war" may provide the Christian culture with a justification for more physically confrontational actions against (perceived) injustice compared to more strictly pacifist traditions such as Jainism or Buddhism. Furthermore, the variant views of marriage taken by Hinduism, Buddhism, and Christianity may lead to differences on the morality of such things as premarital sexual relations, the proper roles of husband and wives, and the degree of allowable influence exerted by extended family.

With this in mind, it may be that the moral experts arising from different religious and/or cultural traditions, although being similar, are not exactly the same. Just as Mohammad, Jesus, and Siddhartha share much in common, they are undeniably distinct persons reflective of their traditions and times. The current model would predict that moral expertise will vary across traditions and cultures in a like manner.

Relatedly, is a moral expert anyone who has gain a high skill level in following a set of moral ideals regardless of the content of the moral system? Or must the system meet some universal standard? Arguments have been made on both sides of this issue. Renowned moral philosopher John Rawls (1972) contended that a moral exemplar was one who embodied the ideals of any moral system regardless of whether others judged that system admirable or not. Thus, suicide bombers and other religious fanatics may legitimately be seen as moral paragons by their fellow in-group members. By contrast, in their in-depth study of moral exemplars, Colby and Damon (1992) used "a generalized respect for humanity" and "sustained evidence of moral virtue" as criteria for identifying their moral exemplars. Their approach would most likely disqualify violent fanatics, whereas Rawl's approach might not.

One could easily argue that expertise is always defined relative to a specific domain. Expert tennis players are not experts at chess. The domain-specific nature of all expertise suggests that moral expertise may be understandable only with respect to an agree-upon standard shared by in-group members. On the other hand, morality is deeply social and humans have evolved some species-wide social universals (e.g., the interpretation of facial expressions). Thus, there may be a universal core to morality. The presence of universal moral virtues (Peterson & Seligman, 2004) suggests as much. Westerners may not see Ghandi or Mandella in exactly the same way as Asians or Africans, but they are greatly admired nonetheless.

This discussion suggests that future research in this area must (at least initially) be open to the possibility of two kinds of moral experts—those who are recognized more locally and narrowly by a specifically defined group (withingroup moral experts)—and those who have achieved more universal appeal (universal moral experts). Given religion's evolutionary history as a support mechanism for within-group morality, the current model would predict that within-group moral experts would be more common than universal experts. Furthermore, one might anticipate that a universalist morality is more easily perfected in certain religious settings compared to others (e.g., Unitarian vs. Fundamentalist).

Finally, another goal of research must be to analyze the process of moral practice. The elements of deliberate moral practice appear to be present in the rituals and activities of most major religions. Are some of these elements more critical than others? As mentioned previously, it seems that religion's behavioral proscriptions, rituals of moral review, and meditative practices are

especially relevant to developing self-control, empathy, and wisdom, which in turn promote moral behavior. Can these elements be divorced from specifically religious beliefs and still retain their effectiveness? Given that supernatural beliefs are a prime motivator of moral practice, the current model would predict that secularizing moral practice would strip it of its motivational force, thus leaving far fewer willing to expend the required effort to perfect moral skills (unless another equally powerful motivator can be found).

Research into these and other questions can provide valuable insights into our moral nature and religion's relationship to it.

ACKNOWLEDGMENTS

I thank Raymond F. Paloutzian and four anonymous reviewers for their thoughtful critiques of the manuscript.

REFERENCES

- Abernethy, B. (1987). Anticipation in sport: A review. Physical Education Review, 10, 5-16.
- Abernethy, B., Neal, R. J., & Koning, P. (1994). Visual-perceptual and cognitive differences between expert, intermediate, and novice snooker players. *Applied Cognitive Psychology*, 18, 184–211.
- Adelson, B., & Soloway, E. (1985). The role of domain expertise in software design. IEEE Transactions on Software Engineering, 11, 1351–1360.
- Allard, F., & Starkes, J. L. (1980). Perception in sport: Volleyball. *Journal of Sport Psychology*, 2, 14–21.
- Altemeyer, B., & Hunsberger, B. (2005). Fundamentalism and authoritarianism. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 378–393). New York: Guilford.
- Anderson, J. R. (1987). Skill acquisition: Compilation of weak-method problem situations. Psychological Review, 94, 192–210.
- Ano, G. G., & Vasconcelles, E. B. (2005). Religious coping and psychological adjustment to stress: A meta-analysis. *Journal of Clinical Psychology*, 61, 1–20.
- Aristotle (n.d.). *Nichomachean ethics* (W. D. Ross, Trans.). (Original work published 350 BCE) Retrieved March 8, 2007, from http://www.constitution.org/ari/ethic_00.htm
- Baldwin, D. A., Markman, E. M., Bill, B., Desjardins, R. N., & Irwin, J. M. (1996). Infant's reliance on social criterion for establishing word-object relations. *Child Development*, 67, 3135–3153.
- Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmantic) to orchestrate mind and virtue toward excellence. *American Psychologist*, 55, 122–136.
- Batson, C. D., Eidelman, S. H., Higley, S. L., & Russell, S. A. (2001). "And who is my neighbor?": II. Quest religion as a source of universal compassion. *Journal for the Scientific Study of Religion*, 40, 39–50.
- Batson, C. D., Floyd, R. B., Meyer, J. M., & Winner, A. L. (1999). "And who is my neighbor?": Intrinsic religion as a source of universal compassion. *Journal for the Scientific Study of Religion*, 38, 31–41.
- Batson, C. D., Shoenrade, P., & Ventis, W. L. (1993). Religion and the individual. New York: Oxford University Press.

- Baumeister, R. F., & Exline, J. J. (1999). Virtue, Personality, and social relations: Self-control as the moral muscle. *Journal of Personality*, 67, 1165–1194.
- Benson, P. L. (1992). Religion and substance abuse. In J. F. Shumaker (Ed.), Religion and mental health (pp. 211–220). New York: Oxford University Press.
- Benson, P. L., Donahue, M. J., & Erickson, J. A. (1989). Adolescence and religion: A review of the literature from 1970 to 1986. *Research in the Social Scientific Study of Religion*, 1, 151–179.
- Bjarnason, T. (1998). Parents, religion, and perceived social coherence: A Durkheimian framework for adolescent anomie. *Journal for the Scientific Study of Religion*, 37, 742–754.
- Blair, R. J. R. (1995). A cognitive developmental approach to morality: Investigating the psychopath. Cognition, 57, 1–29.
- Blair, R. J. R., Jones, L., Clark, F., & Smith, M. (1997). The psychopathic individual: A lack of responsiveness to distress cues. *Psychophysiology*, 34, 192–198.
- Bock, E. W., & Radelet, M. L. (1988). The marital integration of religious independents: A reevaluation of its significance. Review of Religious Research, 29, 228–241.
- Bootsma, R. J., & Van Wieringen, P. C. W. (1990). Timing an attacking forehand in table tennis. Journal of Experimental Psychology: Human Perception and Performance, 16, 21–29.
- Bottoms, B. L., Nielsen, M. E., Murray, R., & Filipas, H. (2004). Religion related child physical abuse: Characteristics and psychological outcome. *Journal of Aggression, Maltreatment and Trauma*, 8, 87–114.
- Bowker, J. (2003). World religions. New York: DK Publishing.
- Boyer, P., & Barrett, H. C. (2005). Domain specificity and intuitive ontology. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (pp. 96–118). New York: Wiley.
- Brody, G. H., Stoneman, Z., Flor, D., & McCrary, C. (1994). Religion's role in organizing family relationships: Family processes in rural, two-parent, African-American families. *Journal of Marriage and the Family*, 56, 878–888.
- Brooks, A. C. (2003). Religious faith and charitable giving. Policy Review, 121, 39-50.
- Broom, D. M. (2003). *The evolution of morality and religion*. Cambridge, UK: Cambridge University Press
- Bushman, B. J., Ridge, R. D., Das, E., Key, C. W., & Busath, G. L. (2007). When God sanctions killing: Effect of scriptural violence on aggression. *Psychological Science*, 18, 204–207.
- Charness, N. (1989). Expertise in chess and bridge. In D. Klahr & K. Kotovsky (Eds.), Complex information processing: The impact of Herbert A. Simon (pp. 183–208). Hillsdale, NJ: Erlbaum.
- Charness, N., Krampe, R., & Mayr, U. (1996). The role of practice and coaching in entrepreneurial skill domains: An international comparison of life-span chess skill acquisition. In K. A. Ericsson (Ed.), The road to excellence (pp. 51–80). Mahwah, NJ: Erlbaum.
- Chase, W. G., & Simon, H. A. (1973). The mind's eye in chess. In W. G. Chase (Ed.), Visual information processing (pp. 215–281). New York: Academic.
- Cline, V. B., & Richard, J. M. (1965). A factor-analytic study of religious belief and behavior. Journal of Personality and Social Psychology, 1, 569–578.
- Cochran, J. K. (1993). The variable effects of religiosity and denomination on adolescent self-reported alcohol use by beverage type. *Journal of Drug Issues*, 23, 479–491.
- Colby, A., & Damon, W. (1992). Some do care: Contemporary lives of moral commitment. New York: The Free Press.
- Conduct Problems Prevention Research Group. (2002). Evaluation of the first 3 years of the fast track prevention trial with children at high risk for adolescent conduct problems. *Journal of Abnormal Child Psychology* 30, 19–35.
- Darley, J. M., & Batson, C. D. (1973). "From Jerusalem to Jerico": A study of situational and dispositional variables in helping behavior. *Journal of Personality and Social Psychology*, 27, 100–108.

- Donahue, M. J., & Nielsen, M. E. (2005). Religion, attitudes, and social behavior. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 274–291). New York: Guilford.
- Durkheim, É. (1965) *The elementary forms of the religious life* (J. Ward Swain, Trans.). New York: The Free Press. (Original work published 1912)
- Ellison, C. G., Bartkowski, J. P., & Anderson, K. L. (1999). Are there religious variations in domestic violence? *Journal of Family Issues*, 20, 87–133.
- Elstein, A. S., Shulman, L. S., & Sprafka, S. A. (1990). Medical problem solving: A ten-year retrospective. *Evalutation and the Health Professions*, 13, 5–36.
- Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *The International Journal for the Psychology of Religion*, 10, 3–26.
- Emmons, R. A. (2005). Striving for the sacred: Personal goals, life meaning and religion. *Journal of Social Issues*, 61, 731–745.
- Enright, R. D., Santos, M. J., & Al-Mabuk, R. (1989). The adolescent as forgiver. *Journal of Adolescence*, 12, 99–110.
- Ericsson, K. A. (1996). The acquisition of expert performance. In K. A. Ericsson (Ed.), *The road to excellence* (pp. 1–50). Mahwah, NJ: Erlbaum.
- Ericsson, K. A. (2002). Attaining excellence through deliberate practice: Insights from the study of expert performance. In M. Ferrari (Ed.), *The pursuit of excellence through education* (pp. 21–56). Mahwah, NJ: Erlbaum.
- Ericsson, K. A., & Charness, N. (1994). Expert performance its structure and acquisition. American Psychologist, 49, 725–747.
- Ericsson, K. A., Krampe, R., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100, 363–406.
- Ericsson, K. A., & Lehmann, A. C. (1996). Expert and exceptional performance: Evidence on maximal adaptations on task constraints. *Annual Review of Psychology*, 47, 273–305.
- Exline, J. J. (2002). Stumbling blocks on the religious road: Fractured relationships, nagging vices, and the inner struggle to believe. *Psychological Inquiry*, 13, 182–189.
- Fergusson, D. M., Horwood, L. J., Kershaw, K. L., & Shannon, F. T. (1986). Factors associated with reports of wive assault in New Zealand. *Journal of Marriage and the Family*, 48, 407– 412
- Filsinger, E. E., & Wilson, M. R. (1984). Religiosity, socioeconomic rewards, and family development: Predictors of marital adjustment. *Journal of Marriage and the Family, 46,* 663–670.
- Geary, D. C. (2005). The origin of mind. Washington, DC: American Psychological Association.
- Goldfried, J., & Miner, M. (2002). Quest religion and the problem of limited compassion. *Journal for the Scientific Study of Religion*, 41, 685–695.
- Gorsuch, R. L., & Hao, J. Y. (1993). Forgiveness: An exploratory factor analysis and its relationship to religious variables. Review of Religious Research, 34, 333–347.
- Gruber, J. H. (2005). Religious market structure, religious participation, and outcomes: Is religion good for you? Advances in Economic Analysis and Policy, 5(article 5). Retrieved February, 12, 2007, from http://www.bepress.com/bejeap/advances/vol5/iss1/art5/
- Guttman, J. (1984). Cognitive morality and cheating behavior in religious and secular school children. Journal of Educational Research, 77, 249–254.
- Harris, P. L., & Nunez, M. (1996). Understanding of permission rules by preschool children. Child Development, 67, 1572–1591.
- Hauser, M. D. (2006). Moral minds. New York: HarperCollins.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., et al. (2001). In search of Homo Economicus: Behavioral experiments in 15 small-scale societies. *American Economic Review*, 91, 73–78.

- Ialongo, N., Poduska, J., Werthamer, L., & Kellam, S. (2001). The distal impact of two first-grade preventive interventions on conduct problems and disorder in early adolescence. *Journal of Emotional and Behavioral Disorders* 9, 146–160.
- Irons, W. (2001). Religion as a hard-to-fake sign of commitment. In R. M. Nesse (Ed.), *Evolution and the capacity for commitment* (pp. 293–309). New York: Russell Sage Foundation.
- Jefferson, T. (1955). Letter to Peter Carr, August 10. In J. P. Boyd (Ed.), *The papers of Thomas Jefferson* (p. 15). Princeton, NJ: Princeton University Press. (Original work published 1787)
- Jeffries, R., Turner, A., Polson, P., & Atwood, M. (1981). The processes involved in designing software. In J. A. Anderson (Ed.), Cognitive skills and their acquisition (pp. 255–284). Hillsdale, NJ: Erlbaum.
- Joyce, R. (2006). The evolution of morality. Cambridge, MA: MIT Press.
- Kirkpatrick, L. A. (2005). Evolutionary psychology: An emerging new foundation for the psychology of religion. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and* spirituality (pp. 101–119). New York: Guilford.
- Koenig, L. B., McGue, M., Krueger, R. F., & Bouchard, T. J., Jr. (2007). Religiousness, antisocial behavior, and altruism: Genetic and environmental mediation. *Journal of Personality* 75, 265–290.
- Krebs, D. (2005). The evolution of morality. In D. M. Buss (Ed.), The handbook of evolutionary psychology (pp. 747–771). New York: Wiley.
- Lamb, K. L., & Burwitz, L. (1988). Visual restriction in ball-catching: A re-examination of earlier findings. *Journal of Human Movement Studies*, 14, 93–33.
- Lehmann, A. C., & Ericsson, K. A. (1997). Expert pianists mental representations: Evidence from successful adaptation to unexpected performance demands. In *Proceedings of the Third Triennial* ESCOM Conference (pp. 165–169). Uppsala, Sweden: SLU Service/Reproenhenten.
- Mahoney, A., Pargament, K. I., Jewell, T., Swank, A. B., Scott, E., Emery E., et al. (1999). Marriage and the spiritual realm: The role of proximal and distal religious constructs in marital functioning. *Journal of Family Psychology*, *13*, 1–18,
- Mahoney, A., Pargament, K. I., Tarakeshwar, N., & Swank, A. (2001). Religion in the home in the 80s and 90s: A meta-analytic review and conceptual analysis of religion, marriage, and parenting. *Journal of Family Psychology*, 15, 559–596.
- Mahoney, A., & Tarakeshwar, N. (2005). Religion's role in marriage and parenting in daily life and during family crises. In R. F. Paloutzian & C. L. Park (Eds.), Handbook of the psychology of religion and spirituality (pp. 177–195). New York: Guilford.
- Markman, E. M., & Hutchinson, J. E. (1984). Children's sensitivity to constraints on word meaning: Taxonomic vs. thematic relations. *Cognitive Psychology*, 16, 1–27.
- Mayer, A., & Sharp, H. (1962). Religious preferences and worldly success. American Sociological Review, 27, 218–227.
- McCullough, M. E., Bono, G., & Root, L. M. (2005). Religion and forgiveness. In R. F. Paloutzian & C. L. Park (Eds.), Handbook of the psychology of religion and spirituality (pp. 394–411). New York: Guilford.
- McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82, 112–127.
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127, 249–266.
- McCullough, M. E., & Worthington, E. L., Jr. (1999). Religion and the forgiving personality. *Journal of Personality*, 67, 1142–1164.
- McLeod, P., & Jenkins, S. (1991). Timing accuracy and decision time in high speed ball games. *International Journal of Sports Psychology*, 22, 279–295.
- Monroe, C. R. (1995). World religions: An introduction. Amherst, NY: Prometheus.
- Monsma, S. V. (2007). Religion and philanthropic giving and volunteering: Building blocks for civic responsibility. *Interdisciplinary Journal of Research on Religion*, 3, 2–28.

- Morrison, M. A., & Morrison, T. G. (2002). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality*, 43, 15–27.
- Mullet, E., Barros, J., Frongia, L., Usai, V., Neto, F., & Shafihi, S. R. (2003). Religious involvement and the forgiving personality. *Journal of Personality*, 71, 1–19.
- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources. Does self-control resemble a muscle? *Psychological Bulletin*, 126, 247–259.
- Muraven, M., Baumeister, R. F., & Tice, D. M. (1999). Longitudinal improvement of self-regulation through practice: Building self-control strength through repeated exercise. *The Journal of Social Psychology*, 139, 446–457.
- Muraven, M., & Slessareva, E. (2003). Mechanism of self-control failure: Motivation and limited resources. Personality and Social Psychology Bulletin, 29, 894–906.
- Nielsen, M. E. (2002). Religion's role in the terroristic attack of September 11, 2001. North American Journal of Psychology, 3, 377–383.
- Nunez, M., & Harris, P. L. (1998). Psychological and deontic concepts: Separate domains or intimate connections? *Mind and Language*, 13, 153–170.
- Oman, D., & Thoresen, C. E. (2003). Spiritual modeling: A key to spiritual and religious growth? The International Journal for the Psychology of Religion, 13, 149–165.
- O'Neill, P., & Petrinovich, L. (1998). A preliminary cross cultural study of moral intuitions. Evolution and Human Behavior, 19, 349–367.
- Paloutzian, R. F., & Park, C. L. (2005). Integrative themes in the current science of the psychology of religion. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and* spirituality (pp. 3–20). New York: Guilford.
- Pargament, K. I., Ensing, D. S., Falgout, K., Olsen, H., Reilly, B., Van Haitsma, K., et al. (1990). God help me: (I): Religious coping efforts as predictors of the outcomes to significant negative life events. *American Journal of Community Psychology*, 18, 793–824.
- Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2001). Religious struggle as a predictor of mortality among medically ill elderly patients: A two-year longitudinal study. Archives of Internal Medicine, 161, 1881–1885.
- Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. (2005). The sacred and the search for significance: Religion as a unique process. *Journal of Social Issues*, 61, 665–687.
- Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues. Oxford, UK: Oxford University Press.
- Rawls, J. (1972). A theory of justice. Cambridge, MA: Harvard University Press.
- Richerson, P. J., & Boyd, R. (2001). The evolution of subjective commitment to groups: A tribal instincts hypothesis. In R. M. Nesse (Ed.), Evolution and the capacity for commitment (pp. 186– 220). New York: Russell Sage Foundation.
- Ridley, M. (1996). The origins of virtue. New York: Viking.
- Rokeach, M. (1973). The nature of human values. New York: The Free Press.
- Rosen, B. C. (1950). Race, ethnicity, and the achievement syndrome. *American Sociological Review*, 24, 47–60.
- Rossano, M. J. (2007). Supernaturalizing social life: Religion and the evolution of human cooperation. *Human Nature*, 18, 272–294.
- Rowatt, W. C., Ottenbreit, A., Nesselroade, K. P., & Cunningham, P. A. (2002). On being holier-than-thou or humbler-than-thee: A social psychological perspective on religiousness and humility. Journal for the Scientific Study of Religion, 41, 227–237.
- Sethi, S., & Seligman, M. E. P. (1993). Optimism and fundamentalism. *Psychological Science*, 4, 256–259.
- Shermer, M. (2005). The soul of science. *American Scientist*, 93, 101. Retrieved June 14, 2007, from http://www.americanscientist.org/template/AssetDetail/assetid/40803?&print=yes

- Shor, R. (1998). The significance of religion in advancing a culturally sensitive approach towards child maltreatment. Families in Society, 79, 400–409.
- Silberman, I. (2005). Religion as a meaning system: Implications for the new millennium. *Journal of Social Issues*, 61, 641–663.
- Sloboda, J. A. (1991). Musical expertise. In K. A. Ericsson & J. A. Smith (Ed.), Toward a general theory of expertise: Prospects and limits (pp. 153–171). Cambridge UK: Cambridge University Press
- Snyder, C. R., Sigmon, D. R., & Feldman, D. B. (2002). Hope for the sacred and vice versa: Positive goal-directed thinking and religion. *Psychological Inquiry*, 13, 234–238.
- Sober, E., & Wilson, D. S. (1998). Unto others: The evolution and psychology of unselfish behavior. Cambridge, MA: Harvard University Press.
- Social Capital Survey. (2001). The Social Capital Community Benchmark Survey. Mountain View, CA: Author. Retrieved June 25, 2007, from http://www.cfsv.org/communitysurvey/results2.html
- Sosis, R. (2000). Religion and intragroup cooperation: Preliminary results of a comparative analysis of Utopian communities. Cross-Cultural Research, 34, 71–88.
- Sosis, R., & Bressler, E. (2003). Cooperation and commune longevity: A test of the costly signaling theory of religion. Cross-Cultural Research, 37, 211–239.
- Sosis, R., & Ruffle, B. (2003). Religious ritual and cooperation: Testing for a relationship on Israeli religious and secular kibbutzim. *Current Anthropology*, 44, 713–722.
- Spilka, B., Hood, R. W., Hunsberger, B., & Gorsuch, R. (2003). The psychology of religion: An empirical approach. New York: Guilford.
- Stark, R. (1996). The rise of Christianity. Princeton, NJ: Princeton University Press.
- Staudinger, U. M., & Baltes, P. B. (1996). Interactive minds: A facilitative setting for wisdom-related performance. *Journal of Personality and Social Psychology*, 71, 746–762.
- Sternberg, R. J., Grigorenko, E. L., & Ferrari, M. (2002). Fostering intellectual excellence through the development of expertise. In M. Ferrari (Ed.), *The pursuit of excellence through education* (pp. 57–84). Mahwah, NJ: Erlbaum.
- Strawbridge, W. J., Shema, S. J., Cohen, R. D., & Kaplan, G. A. (2001). Religious attendance increases survival by improving and maintaining good health practices, mental health, and stable marriages. *Annals of Behavioral Medicine*, 23, 68–74.
- Tsang, J., McCullough, M. E., & Hoyt, W. T. (2005). Psychometric and rationalization accounts of the religion-forgiveness discrepancy. *Journal of Social Issues*, 61, 785–805.
- Verweij, J., Ester, E., & Nauta, R. (1997). Secularization as an economic and cultural phenomenon: A cross-national analysis. *Journal for the Scientific Study of Religion*, 36, 309–324.
- Wilson, D. S. (2002). Darwin's cathedral: Evolution, religion, and the nature of society. Chicago: University of Chicago Press.
- Wulff, D. M. (1991). Psychology of religion: Classic and contemporary views. New York: Wiley and Sons.
- Wuthnow, R. (1994). God and mammon in America. New York: The Free Press.
- Zagzebski, L. T. (1996). Virtues of the mind. Cambridge, UK: Cambridge University Press.
- Zimmerman, B. J. (2002). Achieving academic excellence: A self-regulatory perspective. In M. Ferrari (Ed.), *The pursuit of excellence through education* (pp. 85–112). Mahwah, NJ: Erlbaum.
- Zinnbauer, B. J., & Pargament, K. I. (2005). Religiousness and spirituality. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 21–42). New York: Guilford.