SAINTLY SACRIFICE: THE TRADITIONAL TRANSMISSION OF MORAL ELEVATION

by Craig T. Palmer, Ryan O. Begley, and Kathryn Coe

Abstract. This paper combines the social psychology concept of moral elevation with the evolutionary concept of traditions as descendant-leaving strategies to produce a new explanation of the role of saints in Christianity. Moral elevation refers to the ability of prosocial acts to inspire people to engage in their own acts of charity and kindness. When morally elevating stories and visual depictions become traditional by being passed from one generation to the next, they can produce prosocial behavior advantageous to survival and reproduction among many generations of descendants. Traditions that increase the number of descendants in future generations can be seen as descendant-leaving strategies. Stories and visual depictions of the sacrifices of saints appear to be designed to produce states of moral elevation, and they have been transmitted from one generation to the next for many centuries. We propose that this ability of sacrificing saints to inspire future generations to engage in prosocial acts has contributed to the continuation and spread of Christianity.

Keywords: Christianity; evolution; moral elevation; sacrifice; saints; stories; traditions; visual arts

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"Seek willingly and listen attentively to the words of the saints; do not be displeased with the sayings of the ancients, for they were not made without purpose."

– *The Imitation of Christ,* Thomas à Kempis (1940, 5)

The role of "saints" in Christianity is complex and multifaceted. This is true even when the variable sociopolitical context of saints is ignored in favor of a focus on only the attributes of the saints themselves. Many of the purported attributes of saints are supernatural (i.e., not subject to the typical forms of empirical verification standard to scientific methodology). For example, a saint may be claimed to be a worker of miracles and wonders, a source of benevolent supernatural power, act like an intercessor

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with supernatural beings, and/or have some other special and revelatory relation to the holy. The entire subject of supernatural claims is certainly crucial to the study of religion in general (see Steadman and Palmer 2008), and saints in particular. There are, however, other important aspects of saints. In addition to the various supernatural attributes ascribed to saints, they can also, identifiably, influence the moral behavior of others. Not only are saints sometimes considered extraordinary teachers, they are often also held as exemplary models of moral and benevolent behavior. Often their example is one of selflessness, which may involve refusing material attachments or comforts. In this paper, we present an explanation of this morally exemplary aspect of saints.

Our explanation will focus on the written and visual depiction of the stories of individuals whose canonization was at least partially due to their altruistic behavior. We will refer to such individuals as "sacrificing saints." Our explanation of this aspect of saints in Christianity combines the widely recognized use of sacrificing saints to serve as moral exemplars to be emulated by others with the psychological concept of moral elevation and an evolutionary theory of cultural traditions as descendant-leaving strategies. Moral elevation is the recent and popular name given to the long observed human tendency to respond to witnessing acts, stories, or images of altruism and sacrifice with altruistic acts of their own. The descendant-leaving strategy (DLS) hypothesis describes the ability of human ancestors to influence the behavior of many generations of descendants through the transmission of cultural traditions from parents to offspring. These combine to explain the tradition of depicting the stories of sacrificing saints as a means of triggering moral elevation among numerous generations of descendants, thereby helping those descendants to survive and thrive by increasing their willingness to cooperate with and sacrifice for each other.

After introducing the concept of moral elevation, we then describe the previously unappreciated consequences occurring when morally elevating acts, stories and images become traditional by virtue of being copied by subsequent generations. When this occurs, a cascade of altruism, courage, and sacrifice is set into place that can endure, generation after generation, indefinitely. We then discuss how this tendency may have been selected for during tens of thousands of years of recent human evolution. This is followed by evidence that the more recent time and energy devoted to the maintenance and display of the written stories and visual art depicting the sacrifices made by Christian saints also appears designed to morally elevate those who hear or see the depictions to imitate the saints by being willing to sacrifice for others, themselves. We will compare and contrast this explanation with the numerous varieties of "group selection" currently being discussed in the evolutionary literature.

Moral Elevation

Social psychologists have often found that "the presence of helpful models can induce helping" (Baron and Byrne 1991, 361), or put differently, that "one is more likely to be a good samaritan [sic] if one has just observed another individual performing a helpful act" (Baron and Liebert 1971, 506). An important aspect of this human tendency, recently receiving considerable attention partially because it has been given the name of *moral elevation*, is that it is not limited to instances in which the individual is the recipient of the altruism, nor does the altruistic response have to be directed toward the original altruist. In modern environments, even the altruistic acts of strangers can produce moral elevation leading to altruistic acts toward other strangers.

Researchers began noting their observations of this aspect of human nature in both children and adults during the 1960s (Bryan and Test 1967; Macaulay 1970; Stein and Friedrich 1972; Friedrich and Stein 1973, 1975; Sprafkin et al. 1975; Coates et al. 1976; Forge and Phemister 1987). These early studies also found that observing a person acting altruistically influenced children to engage in similar altruistic acts, while simply being told to engage in the altruistic acts did not (Bryan et al. 1971; Bryan and Walbek 1970a, 1970b; Rice and Grusec 1975; Rushton 1975). The potential role of this response in religion has been discussed by Steadman and Palmer (1995, 2008; see also Palmer and Steadman 1997).

Research on this topic increased after Jonathan Haidt (2000) gave the phenomena the name of *moral elevation* (see also Haidt 2003; Algoe and Haidt 2009; Aquino et al. 2011). Haidt defined *moral elevation* as "a warm, uplifting feeling that people experience when they see unexpected acts of human goodness, kindness, courage, or compassion" (2010, 87), and stressed that "It makes a person want to help others and to become a better person himself or herself" (2010, 87). Moral elevation and its ability to influence behavior have been studied in a variety of settings. It has been found to be related to effective leadership in the workplace (Vianello et al. 2010), and to increase caregiving behaviors by nursing mothers toward their infants (Silvers and Haidt 2008). It occurs cross-culturally (Haidt 2003), and has been shown to facilitate overcoming some forms of in-group-out-group prejudice (Freeman et al. 2009). It has been studied using an fMRI scanner (Immordino-Yang et al. 2009), and has been shown to last, at least in some instances, for several months (Cox 2010).

Three other aspects of moral elevation make its potential influence on human behavior particularly significant. First, it can have a cascading effect, as one morally elevating act can evoke multiple additional morally elevating acts, which can then do the same. This aspect of moral elevation is captured in Samuel Oliner's observation that "Moral exemplars are influenced by

other moral exemplars' deeds" (2003, xii), and even more simply in Haidt's observation that "Indeed, a hallmark of elevation is that . . . it is contagious" (2010, 92). The second aspect is that moral elevation has also been shown to occur in response to both witnessing actual altruistic acts and hearing or seeing depictions of altruistic acts: "When an elevation story is told well, it elevates those who hear it" (Haidt 2010, 92). This is consistent with Thomas Jefferson's observation that "when any . . . act of charity . . . is presented either to our sight *or imagination*, we . . . feel a strong desire in ourselves of doing charitable . . . acts also" (Jefferson 1975, 350, emphasis added). Thus one morally elevating act or story can serve as a trigger influencing other acts and stories, each of which can evoke further acts and stories. Finally, both morally elevating acts (e.g., rituals involving offerings or sacrifice), and depictions (e.g., stories or visual images) can be transmitted to future generations (i.e., become traditional); in this case they can continue to produce a cascade of moral elevation over untold lengths of time.

These potential consequences warrant a consideration of the possible role moral elevation and the acts that trigger it might have played in the evolution of our species. Moral elevation has not yet received a great deal of discussion from an explicitly evolutionary point of view, but it is unlikely to be explainable by kin selection, since it is clearly not directed exclusively or even primarily toward very close kin. Thus, it is not surprising that the only explicitly evolutionary explanation of which we are aware explains moral elevation as a mechanism to promote indirect reciprocal altruism: "Although Haidt does not offer an account of how such an emotion could have evolved, we believe that this question is amenable to the same form of explanation as that which we applied to moral outrage and moral approbation, namely that a seemingly altruistic act in fact contains a hidden benefit for the actor in the form of advertising the actor's norm adherence, an action which increases the actor's attractiveness as a partner in future cooperative enterprises" (Fessler and Haley 2003, 25).

This indirect reciprocal altruism explanation holds that moral elevation was selected for because it caused individuals to engage in acts that appear to be altruistic self-sacrifice, but which are actually later repaid by individuals witnessing the acts in a way that increases the actor's number of surviving offspring. Similar explanations based on reciprocity (i.e., reciprocal altruism) may account for emotions like moralistic aggression, moral appropriation, gratitude, guilt, and suspicion because such emotions appear "to regulate the altruistic system" so that altruism occurs when it is likely to be repaid (Trivers 1971, 35). There is, however, a major problem with trying to apply this reciprocal altruism explanation to moral elevation. In contrast to the aforementioned emotions, the evidence suggests that the morally elevated person is at least as likely to direct their altruism toward others as they are to direct the altruism back to

the original altruist or his kin. Further, morally elevated individuals do not appear to direct altruism toward only individuals who have previously been proven reliable reciprocators. The failure of moral elevation to exhibit evidence of being designed to function through direct or indirect reciprocal altruism may be why Haidt appears to support of the concept of group (or multilevel) selection (Haidt 2006, 232–39), although he has not explicitly applied these concepts to moral elevation *per se*. We will now describe how the confusion and controversy over the various meanings of group (or multilevel) selection justifies considering the ability of an alternative evolutionary explanation (e.g., the DLS hypothesis) to account for moral elevation.

The Various Meanings Of Group Selection

Many aspects of current evolutionary explanations of human behavior trace back to the 1960s, a time when the explanation of altruism based on group selection was largely rejected in favor of explanations based on kin selection (inclusive fitness) and reciprocal altruism. However, the apparent inability of kin selection and reciprocal altruism to account for many forms of altruism has led to a renewed interest in group selection as a possible explanation. Unfortunately, as clearly argued by a recent review article, "group selection is used to mean at least four different things" (West et al. 2011, 240), and perhaps has as many as six different meanings when the multiple meanings of "cultural group selection" are included (West et al. 2011, 248). West et al. explain that "This variable use of group selection has been possible because there is no formal theory of group selection . . . " (2011, 248), and emphasize "a lack of an appreciation of the different types of group selection has led to numerous sources of confusion" (2011, 248). Our point in presenting brief summaries of the multiple uses of group selection is to not to evaluate each one, but only to establish the ways they are all fundamentally distinct from the DLS hypothesis.

West et al. (2011, 247) describe the following meanings of group selection currently in use:

> . . . the "old" group selection, with well-defined groups with little gene flow between them . . .). Competition and reproduction is between groups. The groups with more cooperators do better, but selfish individuals can spread within groups.
> . . . the "new" group selection, with arbitrarily defined groups . . . , and the potential for more gene flow between them. The different groups make different contributions to the same reproductive pool (although there is also the possibility of factors such as limited dispersal leading to more structuring), from which new groups are formed.
> . . . the "newer" group selection, which emphasises the more proximate mechanism of inter-group competition as a factor shaping the evolution of social behaviours.
> . . . cultural group selection, in which social behaviours can be horizontally transmitted between group mates, for example with all with all individuals in the

group imitating one "teacher" . . . The various forms of cultural group selection could be either subsumed under newer, or form a new category ("even newer") or categories.

There are three crucial factors about these forms of group selection that distinguish them from the DLS hypothesis presented below. First, except in extreme, and unlikely, scenarios where there is essentially no individual level selection, all of these forms of group selection are predicted to produce individuals who appear to maximize their inclusive fitness: "Irrespective of the extent to which selection is within or between groups, natural selection will lead to organisms that appear to be maximising [sic] their inclusive fitness" (West et al. 2011, 247). This is crucial because all of these group selection approaches assume that the inclusive fitness of an individual can be measured in the *next generation* by counting the number of offspring produced by an individual (and "surviving to adulthood"), and the contribution of the individual to the production of offspring by closely related individuals (West et al. 2011, 232). By contrast, the DLS hypothesis holds that evolutionary success is better measured by the number of descendants alive after many generations (see below). The second factor differentiating all of the forms of group selection from the DLS hypothesis is that all of the forms of group selection require the existence of social groups, even if these groupings are "arbitrarily defined" and have gene flow between them (see Palmer et al. 1997). Alternatively, the DLS hypothesis does not require individuals to be gathered into groups of any kind, only individuals identified as codescendants who may be distributed in any manner whatsoever across the landscape. The third difference between all of these forms of group selection and the DLS hypothesis is none of the group selection models focus on the transmission of cultural traditions. Even the "cultural" group selection models described by West et al. explicitly focus on social behaviors being "horizontally transmitted between group mates" in contrast to the vertically transmitted social behaviors (i.e., traditions) that form the basis of the DLS hypothesis. We agree with evolutionists arguing for one or more of the forms of group selection on the point that kin selection and reciprocal altruism are insufficient to account for human altruism, and that an alternative explanation is needed. However, we will now argue that the alternative explanation will only be found after there is a shift from a perspective focusing on groups to a perspective of ancestors influencing many generations of descendants through traditions that encourage altruism toward codescendants.

The Descendant-Leaving Strategy Hypothesis

The alternative evolutionary explanation we propose is referred to as the *descendant-leaving strategy hypothesis*. This hypothesis generates an

explanation of human altruism that starts with the "parental manipulation explanation of altruism" based upon the concept of "parent-offspring conflict" (Trivers 1974; Alexander 1974; West-Eberhard 1975; Voland and Voland 1995). The parental manipulation explanation of altruism holds that human parents have evolved to *encourage altruism among their offspring* in order to discourage selfish sibling rivalry for parental investment. The DLS hypothesis combines the parental manipulation explanation with the powerful influence of "traditions" on human behavior. Traditions are simply behaviors transmitted from parents to offspring, often for many generations. This transmission involves offspring copying the behaviors, including the words, of ancestors, especially parents. The existence of traditions means that not only can parents and grandparents influence the behavior of their living descendants directly, but that human ancestors can also influence descendants yet to be born through the transmission of some of their behavior, as traditions, to those descendants. This multigenerational influence can include the manipulation of descendants to be altruistic. From the descendant's point of view, the ability to transmit behavior in this manner allows humans to be influenced by traditions deriving from very distant ancestors.

As originally stated by Robert Trivers (1974, 249), parent-offspring conflict exists because "parents are expected to attempt to mold an offspring, against its better interests." That is, parents who influenced (i.e., "molded") the behavior of their offspring in a certain way left more descendants in future generations than did parents who did not influence their offspring in that way. This situation is the result of the simple biological fact that: "The mother is equally related to [all of] her offspring. However, the offspring is completely related to itself [i.e., related to itself by 1.0], but only half as related to its full siblings [i.e., related to full siblings by 0.5]. A Hamiltonian offspring should value its personal fitness twice as much as it values any full sib's fitness" (Kurland and Gaulin 2005, 452). Therefore: "Each child should, in theory, see itself as twice as valuable as its sibling [i.e., an offspring values itself 1.0 and values a full sibling 0.5], while the parent, being equally related to the two, values them equally. Hence another Darwinian prediction: not only will siblings have to be taught to share equally [i.e., taught to value a sibling as much as itself, or 1.0 instead of 0.5]; parents will, in fact, try to teach them [to value each sibling as much as itself, or 1.0]" (Wright 1994, 166). This generates the prediction that natural selection would favor parents who could manipulate their offspring to behave as if each of the parent's other offspring were related to them by 1.0 (i.e., value their siblings as much as they value themselves). This is known as the *parental manipulation* explanation of altruism. Although the outcome of parent-offspring conflict is more likely to be some degree of compromise than total victory for the parent (Alexander 1974; Trivers 1974), it also seems likely that parents who were better able to manipulate

their offspring in such a way would be favored by natural selection over parents who were less able. As we describe below, what this manipulation could produce is an individual willing to sacrifice for a sibling in a way that is in the parent's evolutionary interest even when it lowers the inclusive fitness of the individual making the sacrifice.

The DLS hypothesis combines the parental manipulation explanation of altruism with the fact that traditional behaviors have enabled past generations of humans to survive and reproduce. Many traditions appear to have increased the descendant-leaving success of both parents and offspring (see Palmer 2010). Thus, selection has favored both parents who influence the behavior of their offspring and offspring who copy the behavior of their parents (Castro and Toro 2004; Coe and Palmer 2009; Palmer and Coe 2010). However, because of the previously mentioned conflict over the amount of altruism the offspring exhibits toward its siblings, there is likely to also be some degree of conflict involved in the transmission of traditions influencing altruism toward siblings and other codescendants. Thus, the DLS hypothesis simply applies the parental manipulation explanation of altruism to the fact that human ancestors can mold their more distant descendants through traditions (Coe et al. 2010; Steadman and Palmer 2008). This means natural selection would favor ancestors who could transmit traditions that manipulate their distant descendants to behave as if they were related to each other by 1.0 (i.e., value all of their codescendants as much as they value themselves). Although some degree of compromise between the evolutionary interests of ancestors and descendants is expected, just as it is in parent-offspring conflict, it seems likely that ancestors who were more successful in manipulating the behavior of distant descendants through traditions would be favored by natural selection over those who were less successful. Thus, the traditional forms of social behavior existing long enough to be described in the ethnographic record should reveal the influence of such traditions. We propose that moral elevation is an adaptation designed by natural selection to enhance the ability of ancestors to increase the altruism among their distant descendants.

The ability of humans to influence the behavior of descendants for many generations makes it crucial to question the previously mentioned common practice of measuring evolutionary success after only one generation (e.g., by counting the number of offspring surviving to adulthood). The idea that the evolutionary success of parental (and grandparental) behavior is best judged not by the number of offspring, or even the number of surviving grandchildren, but by the number of distant descendants has long been noted by evolutionary theorists. For example, Richard Alexander asked: "Should we measure numbers of offspring produced, numbers reared, numbers breeding, numbers of grandchildren produced, reared, breeding, etc?" (1974, 374). Similarly Mary Jane West-Eberhard stated: "This raises the further general question of just what it is

that selection maximizes—whether number of children, grandchildren, great-grandchildren or nth descendents . . . " (1975, 29). We agree with the answer provided by Richard Dawkins: "Ideally we might count the relative number of descendants alive after some very large number of generations" (1982, 184–85). This is why we use "descendant-leaving success" instead of the more familiar "reproductive success" (see Steadman and Palmer 1995, 2008).

To evaluate the DLS explanation of moral elevation it is necessary to consider the consequences moral elevation would have in traditional social environments. That is, an evolutionary explanation of moral elevation requires taking what we know about moral elevation in the modern settings in which it has been studied, and forming hypotheses about the consequences it would have in the social environments more like those in which it would have evolved. This is crucial because, as Lee Cronk (1999, 119) states, "We were made for a world that has mostly disappeared . . . a world in which all activities were enmeshed in webs of kinship . . . a world in which things rarely changed much over the course of a lifetime." Further, all of the kin forming the social environments of our ancestors were influenced to feel "obligated to help out each other" (Cronk 1999, 129).

The creation of a large web of individuals identified as kin simply requires a specific type of tradition where a parent gives his or her offspring some symbol that they are a descendant, such as a descent name or body decoration including tribal outfits, and influencing that offspring to copy that behavior (see Palmer and Steadman 1997; Coe 2003). When, *and only when*, this type of tradition exists and is copied relatively perfectly over many generations do "large lineages or clans . . . grow up over time as the descendants of the original ancestor/ancestress" accumulate (Fox 1967, 122). The creation of an obligation to help out individuals in large networks of kin required a second tradition also found in all known traditional cultures. This second tradition consisted of parents influencing their offspring to be altruistic toward individuals identified as kin, and influencing their own descendants to do the same. Such traditions are succinctly represented by John Middleton's (1960, 27) translation of a saying among the Lugbara of Africa: "the rules of social behaviour are the 'words of our ancestors.'" The potential consequence of these two types of traditions being copied over a considerable number of generations is illustrated by Meyer Fortes's (1969, 237) observation that the axiom of kinship amity "applies to all of the Tiv" and Roger Keesing's (1975, 32–33) notation that "the whole population of some 800,000 traces descent by traditional genealogical links from a single founding ancestor." Similarly, the transmission of these two traditions is what enables Ian Keen (2004, 174) to state that in Aboriginal Australia "kinship and society were co-extensive." The favoring of closer kin over more distant kin, and of

distant kin over very distant kin, is probably the result of the greater influence of more recent ancestors (Palmer and Steadman 1997; Coe et al. 2010).

The transmission of a traditional descent or tribal name, or traditional visual markers of dress and body decoration, can explain how large categories of people identified as kin could come to exist, while the transmission of a traditional rule "to be kind to kin" might be able to account for how large categories of kin could come to be kind to each other. However, the ethnographic record indicates that ancestors did not simply recite the rule "be altruistic to kin" to their descendants and ask those descendants to repeat the rule to their own offspring. Apparently all human ancestors who were successful in leaving many generations of descendants influenced these future generations of their descendants through traditional *rituals*, which displayed acts of altruism, and accompanying *myths*, which described the acts of altruism (Palmer et al. in press). These are *exactly the stimuli—viewing and hearing about altruistic acts—found to produce moral elevation*. Thus, traditional acts and stories about self-sacrifice transmitted to descendants would morally elevate the codescendants who witnessed or heard about those acts, and thereby motivate them to make altruistic sacrifices of their own. Further, because these acts and stories are traditional, the cascading influence of morally elevating acts and stories would occur in every generation.

As to the initial selection for moral elevation within this traditional kinship social environment, perhaps the most likely evolutionary scenario is that moral elevation started with an individual who witnessed an altruistic behavior toward it by its parent, and who had a mutation influencing it to respond by directing altruism toward his or her sibling and/or toward his or her own offspring later in life. The effect of influencing offspring to later be more altruistic toward their own offspring would have been favored by selection because it would have increased both the number of offspring for the individual with the mutation and the number of grandchildren for the original parents. The effect of influencing offspring to be more altruistic toward their siblings would have been favored by natural selection because it would have increased the parent's ability to manipulate their offspring to be more altruistic. That is, moral elevation was a powerful tool of parental manipulation used in the context of parent-offspring conflict. That is, parent-offspring conflict could lead to selection for parents who "manipulated" the moral elevation of their offspring to also respond to the parent's altruistic acts with altruism toward their siblings, including altruism beyond what was in the particular offspring's own interest (i.e., altruism that reduced that offspring's inclusive fitness).

The next step would involve the parental manipulation of altruism becoming traditional as described above. Selection would have then favored parents who could not only manipulate their offspring's moral elevation

to direct altruism toward siblings, but also influence their offspring to later manipulate their own offspring to be altruistic toward all of the grandparent's descendants, and so on and so forth through the generations. Selection would have continued to favor traditions producing moral elevation leading to altruism toward individuals identified as codescendants through the subsequent generations. A crucial point in this scenario is that as long as the social environment consisted nearly exclusively of individuals who were codescendants, there would not necessarily be selection for traits directing the altruism from moral elevation toward only certain individuals. The ethnographic information indicating that our ancestors lived in such exclusively kin-based social environments for tens of thousands of years is consistent with this hypothesis. Further support comes from the ethnographic evidence of traditional stories and rituals portraying morally elevating acts (Palmer et al. in press).

We suggest that the scenario just described leads to moral elevation being common to all humans when, starting several thousand years ago in some places, and much more recently in others, humans started to regularly cooperate with nonkin and traditions started to be replaced with more rapidly changing nontraditional cultural behaviors. However, because humans had already evolved to be morally elevated by acts and depictions of altruism, new traditions that encouraged kin-like altruism toward nonkin started and were similar to the original morally elevating traditions in many ways. We will now present the evidence that "saintly sacrifice" is an example of such a tradition. Although this particular example involves largely metaphorical descendants of the original Christians, it has the advantage of extensive documentation. Thus, we suggest portrayals of saintly sacrifice provide insight as to how similar stories, visual images, and ritual acts of sacrifice may have operated among literal descendants in the past.

Stories as Enduring Displays of Saintly Sacrifice

Thomas Head (2000, xiv) states that "The veneration of those people deemed to be saints lay at the core of the practice of medieval Christianity." Therefore it is not surprising that the study of depictions of the lives and acts of saints, often referred to as *hagiography*, is a "literature has been breathtakingly wide over the course of two millennia of Christian history" (Head 2010). This literature has often focused on the "selfless quest" (Weinstein and Bell 1983, 5) of saints. The emphasis this literature places on the sacrifices made by saints is not surprising given the shared etymology of the words "saint" and "sacrifice." It was largely through sacrifice that "Saints demonstrated their holiness through their actions" (Head 2000, xiv). These actions included the willingness to accept "martyrdom" (i.e., self-sacrifice) or "extreme asceticism" (i.e., self-restraint) (Head 2000,

xiv). It is important to realize that Head's descriptions of the ability of stories about saintly sacrifice to produce "selfless" behavior do not imply any judgment on Head's part that such consequences are good or desirable.

Consistent with our hypothesis, many scholars have suggested that the purpose of stories and visual depictions of the sacrifices made by saints is to influence those who hear and see the stories and visual depictions to behave in similar ways. That is, as Olivia Belote points out, they influence individuals to be less selfish and more willing to sacrifice for others, through drawing attention to the "importance of sacrifice in the imitation of Christ" (Belote 2011, 31). For example, Cynthia Hahn writes that "numerous examples tell of saints reading the texts of other saints' lives in order to imitate them" (Hahn 2001, 2). Head (2010) emphasizes that this purpose has been explicitly stated for centuries: "In the mid-ninth century Bertholdus of Micy, in his *Life of St. Maximinus of Micy*, described the purpose of hagiography . . . For what has been said and done by the saints ought not be concealed in silence. God's love provided their deeds to serve as a norm of living for the men of their own times as well as of those years which have since passed; they are now to be imitated piously now by those who are faithful to Christ." Head (2010) also stresses that although certain aspects of the stories and depictions of saints varied with social trends (e.g., changing gender relations) the stories consistently focused not on the variable details of actual lives, but on how "the life of the saints . . . encourages the minds of listeners to follow their example."

Peter Brown points out that the structure of the stories appears to be designed to maximize both its emotional, or even melodramatic, effect and its repetition: "'Insipid and pretentious' they might be to a sober scholar of the history of the early church: but it is precisely that quality of repetitiveness and melodrama that gave their reading at the great festivals of the saints a momentum that echoed the rhythms of cure among the hearers" (Brown 1981, 81). Head (2010) also emphasizes that there was great effort put into causing these stories, and the willingness to sacrifice for others they evoked, to be repeated both within the members of a generation and by members of subsequent generations:

> Hagiographers also sought to show how the saints themselves had imitated such norms, particularly those provided by the life of Christ and previous saints. Just as they encouraged their audience to imitate the example of the saints, so too they employed the literary models offered them by the Bible and by earlier hagiographic works. Stories, themes, and motifs were repeated from the life of one saint to that of another, each hagiographer adapting a traditional pool of material to the needs of the narrative at hand. Hagiographers even went so far as to repeat phrases and whole passages verbatim from earlier works. The effect, largely intentional, was in part to subsume the particularity of a given saint's life into a generalized type of sanctity, such as the martyr, the virgin or the holy bishop. Such use of models aided the moral and didactic purpose of hagiography.

Brown describes the consequences of this repeated imitation: "In the first place, the *passio* abolished time. The deeds of the martyr or of the confessor had brought the mighty deeds of God in the Old Testament and the gospels into his or her own time. The reading of the saint's deeds breached yet again the paper-thin wall between the past and the present" (1981, 81). It was also hoped that these stories, and their ability to inspire sacrifice, would continue into the future: "O worthy martyr, who has granted so superb a display to your fellow townsmen, conquering past weakness, strengthening our present, teaching future ages" (Brown 1981, 83, quoting Prudentius).

Also consistent with our hypothesis is Head's statement that "The translation of legends concerning traditional saints into the vernacular languages served as an important part of this widespread clerical effort to disseminate and inculcate proper religious practice" (2000, xiv). Head also states: "The celebration of traditional saints certainly remained an important element in the culture of devotion practiced by pious laypeople not only in churches and other public religious spaces, but also in the home. Preachers used exemplary stories gleaned from the lives of the saints to spice up their sermons . . . . Books of hours promoted the observance of many feasts, as well as the cult of the Virgin Mary, in the home" (2000, xxxv).

Visual Images as Enduring Displays of Saintly Sacrifice

It is widely concluded that the prominent role of visual images was a way for the lives and acts of saints to both influence the lives of more people, and to exert a greater force on the behavior of the people it influenced. Hahn points out that "Art was among the first manifestations of saints' cults. Whether in the form of shrine architecture and ornamentation, or pictorial narrative, visual elements were used . . . " (2001, 16). Visual depictions could influence more people than words in books simply because "Saints' Lives on frescoes were obviously more public than manuscripts . . . " (Hahn 2001, 6), and because visual depictions could influence illiterate populations:

> Although the images and altars to the saints were accessible to the laity, the martyrologies and legendaries, or works of saints' lives, were largely confined to the literate clergy, as they were produced in Latin. The transmission of the stories to the laity was part of the oral and visual culture of the church. The priests and deacons read or told the stories of the saints to their congregations in sermons and readings, while the visual imagery of the saints and their stories surrounded them in the church. (Tillotson 2006)

Hahn points out that, just as stories of saints were done in a manner that made them easy to understand and repeat, the paintings often were

done in a "simple style" that made the painting "readable" to any and all levels of literacy within the Catholic community (Belote 2011, 29). Belote gives specific examples of how certain depictions appear to be designed to be "read" in order to influence the viewer a certain way. For example, in one instance "the saints' attributes remind the viewer of their brutal death, thus connecting the virgins to the illustration of Saint Agnes's martyrdom and refocusing the viewer's attention to the importance of sacrifice in the imitation of Christ" (Belote 2011, 31). Similarly, she states that "Just as early nave decorations showed stories from the Old Testament, meant to be read as the worshipper physically moved through the nave towards the apse, the martyr frescoes of Sant'Agnese can be read laterally to conclude with the most celebrated example of piety within the walls of the basilica: the martyrdom of Saint Agnes" (2011, 32).

Another aspect of saintly art consistent with our hypothesis is that visual depictions of saints were often done in a way where they would endure, and thus influence many generations:

> Frescoes were a *permanent* visual aid and acted as reinforcements for the verbal teachings about Christianity, martyrdom, and the sanctity in suffering. The visual representation of grotesque mortal torture and death—imagery that proliferated in Counter Reformation Rome—would have elicited a significant emotional response from the audience. The frescoes gave faces to the tortured and the sufferers. Such specificity allowed the illiterate population a chance to identify with the characters of the *acta martyrum*. The propagandistic purpose of frescoes proved instrumental in the agenda of the Catholic Church because of their *permanence* and continuity within the building. (Belote 2011, 11, emphasis added)

As Belote's quote also indicates, visual depictions were also used to intensify the physiological influence on all viewers, and even the stories themselves "emphatically implicate[s] the sense of sight" and "highlight[s] the importance of visual elements" (Hahn 2001, 3).

The descriptions of the intellectual, emotional, and physiological influence of these stories and images resemble descriptions of moral elevation. Hahn states that "throughout the Middle Ages the cult of saints and the cult of images were enthusiastically accepted and promoted by the Church as tools to stir up or increase devotion" (Hahn 2001, 12). The terminology used to describe this "stirring up" is consistent with that used in descriptions of moral elevation in social psychology experiments: "As the ever-practical Pope Gregory insists, images can teach the illiterate, *elevating* their audience to a new plane of understanding. Images had the power to *move* their audience, whether literate or illiterate, and ultimately to effect conversion. This conversion, whether from paganism to Christianity or from passive to active belief, is one of the primary functions of saints' lives (Hahn 2001, 13, emphasis added). The phrase of being moved to "tears of compunction" (Hahn 2001, 13) by the stories and depictions of the lives

of sacrificing saints is also similar to Haidt's reference to "tears of elevation" (Haidt 2010, 93).

The details of the visual depictions of the saints also appear to be designed to maximize the influence the image has on the viewer, with an emphasis on sacrifice and suffering for others, which is exactly what appears to trigger moral elevation: "A primary example lies in the painstaking depiction of bloody and horrible tortures and their implements" (Hahn 2001, 87). Hahn also states that "The presence of weapons and wounds cues a response of pity and empathy in the viewer" (Hahn 2001, 88). Sometimes the works of art included individuals witnessing the sacrifice of the saints and having morally elevating responses to what they saw (see Hahn 2001, 88). These figures served as a guide for the viewer's own response to the sacrifice made by the saint, as well as an additional trigger of moral elevation. Hahn emphasizes that images are designed to produce emotions consistent with moral elevation, and not sadistic enjoyment:

> Although already converted, readers and viewers experience compunction and are strengthened in faith and in their status as a community. Rather than enjoy the sight through *concupiscentia oculorum,* they are moved, and their 'change of heart' is formed and paced by narrative. Thus, through viewing of the images, the audience is allowed the opportunity to model his or her body on the courageous body of the saint as part of a complete conversion of the text. In imitation of the bodies of the saints, the viewer can learn prayer, patience, courage, and humility. (2001, 88–89)

This list of attributes is similar to those Haidt lists as triggering moral elevation: "acts of human goodness, kindness, courage, or compassion" (2010, 87). Haidt also states that the common words used in the popular press to describe the resulting desire to change one's behavior are "touched, moved, or inspired" (2010, 88), which are similar to being "moved" and having a "change of heart" when viewing depictions of sacrificing saints. Further, just as the subjects studied by Haidt described moral elevation as both "an emotional response triggered by virtuous, pure, or superhuman behavior" (2010, 88) and a "physical feelings in their chests" (2010, 91). Hahn (2001, 87) states: "What I am suggesting is that the reader of saints' Lives responds to the text not only intellectually but also emotionally *and* physically in modeling his or her self *and* body after that of the saint . . . . so these texts and pictures recommend that their audience respond physically and even viscerally to a saint's actions. Such encouragements to respond may be one of the most effective devices of the hagiographer's narrative strategy" (emphasis in original). Scholars have not merely argued that depictions of saints influence viewers to imitate the saint's willingness to sacrifice for others, but that the depictions appear to be carefully designed to do so. Hahn writes: "the Passions of the martyrs are *carefully constructed* and often profoundly moving narratives. In the end, the act

of martyrdom itself witnesses—that is tells a story—and the textual and pictorial narratives hope only to shape and elucidate the circumstances of that compelling event for an audience of the faithful" (2001, 89, emphasis added).

Belote reaches a similar conclusion: "Driven by the prominent percentage of the illiterate population, the illustration of Christian martyrs proved to be the *perfect vehicle* to teach and circulate the Word of God and the necessity of sacrifice to the community" (2011, 14, emphasis added). Beloit continued by writing: "The *acta martyrum,* stories of the martyrs, were part of the aural tradition in both private devotional practices as well as public veneration. Designed to inspire the illiterate, the clergy read the *acta martyrum* aloud to teach the congregation how to suffer. They used the stories of the martyrs as models for ideal behavior" (2011, 15–16).

Perhaps most importantly, just as the experience of moral elevation has been found to actually influence altruistic behavior, Hahn emphasizes that the stories and depictions of saints actually influence the behavior of those who read and view them, and through a process very similar to descriptions of moral elevation: "The visual is demonstrably effective: Augustine heard the story and converted, and Margaret read the stories of virgin saints and imitated them; in the same manner, Asterios of Amasia was moved by the painted acts of martyrs" (2001, 3). As further evidence that the stories of martyrs were successful in accomplishing the goal of influencing the actual behavior of the people who heard them, Judith Perkins states: "The existence of 'voluntary' martyrs showed the effect this image had in the actual lives of some community members. The importance and prestige of martyrs and those awaiting martyrdom suggest martyrdom's function as a social ritual in the Christian community" (1995, 32).

Belote also alludes to the cascading consequences of such imitation of morally elevating acts and depictions: "The adoration of physical devotion gave rise to the cult of martyrs, and as the cult of the martyrs grew so did people's interactions with the stories of martyrdom" (2011, 15). The speed with which this cascade of morally elevated behavior could spread is indicated by Belote's statement that it was from a category of people willing to suffer that "Christianity's growth *erupted*" (Belote 2011, 16, emphasis added; see also Perkins 1995).

The consequences of this cascade of morally elevated behavior are still being felt today: "The reception histories of early Christian martyrdom do not stop in the late ancient or medieval periods; they continue into modernity and, as it turns out, into postmodernity" (Castelli 2004, 173). Elizabeth Castelli describes the effect of stories and visual depictions of saint's on her own experience in Catholic school: "Who's your saint?" we asked each other as we settled into our desks—more expectantly and conspiratorially, "What *happened* to her?" (2004, 1). Castelli then explains how: "Our confirmation names would be those by which God would

know us and through which God would communicate with us. In taking up these names, we were entering into a realm that struck us as tantalizingly mysterious. At the same time, we were engaged in a remarkable process of self-positioning in relation to the Catholic tradition as a whole because the names we chose would establish connections between ourselves and various saintly lineages" (2). She then emphasizes the importance of the morally elevating aspects of each saint's story, and the ability of visual images to magnify the effect of the story: "What was most striking about the saint-selecting process, in retrospect, was the sort of narrative that most attracted us. For, as it happened, the stories most of the girls sought to make their own were stories of torture bravely endured and death heroically met. If there were gory illustrations accompanying these violent hagiographies, so much the better" (Castelli 2004, 2–3). In describing the importance of visual images, and dramatic writing, Castelli pinpoints the ability of the stories and depictions of saints to influence the behavior of others: "Spectacle is a crucial dimension of martyrology—martyrs, after all, need an audience" (2004, 6). Castelli also emphasizes how this influence on her own behavior is the consequence of an unbroken chain of imitation stretching back for centuries: "Moreover, the retellings that were required of us were just a contemporary manifestation of earlier practices of liturgical renarration . . . . our writing replicated the processes of reinscription that had been taking place in the preservation of martyrs' stories from the start . . . Understanding the true dynamics of the martyr's tale situated us in a long, nearly unbroken line of interpretation" (2004, 3–4).

Finally, even the Christian Bible states that the stories and depictions of sacrificing saints were aimed at causing people to imitate acts of sacrifice for others (Salza 2007). For example: "For though you have countless guides in Christ, you do not have many fathers. For I became your father in Christ Jesus through the gospel. I urge you, then, be imitators of me" (1 Corinthians 4:15–16 RSV; May and Metzger [1973] 1977; see also 1 Corinthians 10:33–11:1 RSV; Philippians 2:25–30 RSV; 1 Thessalonians 1:5–7 RSV). The hypothesis that moral elevation is involved in this imitation is supported by Haidt's description of the types of behaviors that evoke moral elevation including seeing or hearing about people "acting in an honorable or saintly way" (2010, 88).

Conclusion

Although we only have space in this paper to address the role of moral elevation in the stories and visual depictions of certain Christian saints, we predict that similar morally elevating traditions will be found in other religions and cultures. Indeed, we predict that morally elevating traditions are, or at least were, a human universal. This is consistent with Haidt's observation that "Love and a desire for affiliation appear to be

a *common human response* to witnessing saints and saintly deeds or even to hearing about them secondhand" (2010, 90, emphasis added). Haidt states: "Narratives of the lives of Jesus, Buddha, Mother Teresa, and other inspiring figures are full of stories of people who, upon meeting the saintly figure, dropped their former materialistic pursuits and devoted themselves to advancing the mission of the one who elevated them" (2010, 92). Head explains that although some aspects of Christian hagiography are absent in some other world religions (including Protestantism), other religions often have a similar concept of a holy person, and stories and visual depictions of such a person may have similar consequences to those of sacrificing saints: "A holy person is one who serves as an exemplar of virtue and an embodiment of sacred power. The holy person lives according to the highest ideals of a religious tradition. The word "saint" is frequently used in English for such persons . . . . Scholars of other religious traditions have freely used this term and concept in studying other traditions" (1999). When these holy persons are individuals who sacrificed for others, such is part of the "exemplar" (i.e., behavior to copy).

The most important evidence for the universality of traditional morally elevating stories and visual representations come from the ethnographic descriptions of anthropologists (Palmer et al. in press; Palmer, Groom, and Brandon 2012). In these traditions, which often existed for thousands of years before the world religions, the emphasis is likely to be on literal ancestors and how their actions can morally elevate descendants to care for each other. There is evidence that traditional ritual sacrifices are at least nearly universal, and that traditional tales of heroism, fictional or not, are much more likely to be universal ways humans have successfully left descendants through traditional means of morally elevating those descendants. We close with the following example from the traditional stories associated with place names among the Western Apache: "Its principal themes are the endless quest for survival, the crucial importance of community and kin, and the beneficial consequences, practical and otherwise, of adhering to moral norms. Accordingly, one of its basic aims is to instill empathy and admiration for the ancestors themselves—they came, they settled, they toiled, they endured—and to hold them up to all as worthy of emulation" (Basso 2001, 33).

References

Alexander, Richard. 1974. "The Evolution of Social Behavior." *Annual Review of Ecology and Systematics* 5:325–83.

Algoe, Sara B., and Jonathan Haidt. 2009. "Witnessing Excellence in Action: The Other–Praising Emotions of Elevation, Admiration, and Gratitude." *Journal of Positive Psychology* 4:105–27.

Aquino, Karl, Brent McFerran, and Marjorie Laven. 2011. "Moral Identity and the Experience of Moral Elevation in Response to Acts of Uncommon Goodness." *Journal of Personality and Social Psychology*, 100:703–18.

Baron, Robert A., and Donn Byrne. 1991. *Social Psychology*, 6th ed. Boston: Allyn and Bacon.
Baron, Robert A., and Robert M. Liebert. 1971. *Human Social Behavior: A Contemporary View of Experimental Research*. Homewood, IL: Dorsey Press.
Basso, Keith H. 2001. *Wisdom Sits in Places: Landscape and Language Among the Western Apache*. Albuquerque: University of New Mexico Press.
Belote, Olivia J. 2011. "Being Seen: An Art Historical and Statistical Analysis of Feminized Worship in Early Modern Rome." *Honors Projects Paper* 9:1–94. http://digitalcommons.macalester.edu/history_honors/9.
Brown, Peter. 1981. *The Cult of the Saints: Its Rise and Function in Latin Christianity*. Chicago: University of Chicago Press.
Bryan, James H., and Mary A. Test. 1967. "Models and Helping: Naturalistic Studies in Aiding Behavior." *Journal of Personality and Social Psychology* 6:400–07.
Bryan, James H., Joel Redfield, and Sandra Mader. 1971."Words and Deeds about Altruism and the Subsequent Reinforcement Power of the Model." *Child Development* 42:1501–08.
Bryan, James H., and Nancy H. Walbek. 1970a. "Practicing and Preaching Generosity: Children's Actions and Reactions." *Child Development* 41:329–53.
———. 1970b. "The Impact of Words and Deeds Concerning Altruism upon Children." *Child Development* 41:747–57.
Castelli, Elizabeth A. 2004. *Martyrdom and Memory: Early Christian Culture Making*. New York: Columbia University Press.
Castro, Laureano, and Miguel A. Toro. 2004. "The Evolution of Culture: From Primate Social Learning to Human Culture." *Proceedings of the National Academy of Sciences* 101(27):10235–40.
Coates, Brian H., Ellison Pusser, and Irene Goodman. 1976. "The Influence of 'Sesame Street' and 'Mister Rogers' Neighborhood' on Children's Social Behavior in the Preschool." *Child Development* 47:138–44.
Coe, Kathryn. 2003. *The Ancestress Hypothesis: Visual Art as Adaptation*. NJ: Rutgers University Press.
Coe, Kathryn, Amber L. Palmer, Craig T. Palmer, and Carl L. DeVito. 2010. "Culture, Altruism, and Conflict between Ancestors and Descendants." *Structure and Dynamics* 4(3): 1–17.
Coe, Kathryn, and Craig T. Palmer. 2009. "How Elders Guided the Evolution of the Modern Human Brain, Social Behavior, and Culture." *American Indian Cultural Resource Journal* 22(3):5–21.
Cox, Keith S. 2010. "Elevation Predicts Domain-Specific Volunteerism 3 Months Later." *Journal of Positive Psychology* 5:333–41.
Cronk, Lee. 1999. *That Complex Whole*. Boulder, CO: Westview Press.
Dawkins, Richard. 1982. *The Extended Phenotype*. Oxford: W. H. Freeman.
Fessler, Daniel M. T., and Kevin J. Haley. 2003. "The Strategy of Affect: Emotions in Human Cooperation." In *Genetic and Cultural Evolution of Cooperation*, ed. Peter Hammerstein, 7–36. Cambridge, MA: The MIT Press.
Forge, Karen L., and Sherri Phemister. 1987. "The Effect of Prosocial Cartoons on Preschool Children." *Child Study Journal* 17:83–88.
Fortes, Meyer. 1969. *Kinship and Social Order*. Chicago: Aldine.
Fox, Robin. 1967. *Kinship and Marriage*. Harmondsworth, UK: Penguin.
Freeman, Dan, Karl Aquino, and Brent McFerran. 2009. "Overcoming Beneficiary Race as an Impediment to Charitable Donations: Social Dominance Orientation, the Experience of Moral Elevation, and Donation Behavior." *Personality and Social Psychology Bulletin* 35:72–84.
Friedrich, Lynette K., and Aletha H. Stein.1973. "Aggressive and Prosocial Television Programs and the Natural Behavior of Preschool Children." *Monographs of the Society for Research in Child Development* 38(4), no. 151.
———. 1975. "Prosocial Television and Young Children: The Effects of Verbal Labeling and Role-Playing on Learning and Behavior." *Child Development* 46:27–38.
Hahn, Cynthia. 2001. *Portrayed on the Heart: Narrative Effect in Pictorial Lives of Saints from the Tenth through the Twentieth Century*. Berkeley: University of California Press.
Haidt, Jonathan. 2000. "The Positive Emotion of Elevation." *Prevention and Treatment* 3(1):3c.

———. 2003. "Elevation and the Positive Psychology of Morality." In *Flourishing: Positive Psychology and the Life Well-Lived*, ed. Corey L. M. Keyes and Jonathan Haidt, 275–89. Washington, DC: American Psychological Association.

———. 2006. *The Happiness Hypothesis: Finding Modern Truth in Ancient Wisdom*. New York: Basic Books.

———. 2010. "Wired to Be Inspired." In *The Compassionate Instinct*, ed. Dacher Keltner, Jason Marsh, and Jeremy A. Smith, 86–93. New York: W. W. Norton.

Head, Thomas 2000. *Medieval Hagiography: An Anthology*. New York: Taylor and Francis.

———. 2010. "Hagiography." In *The Orb: On-line Reference Book for Medieval Studies*. Accessed May 28, 2012. http://www.the-orb.net/encyclop/religion/hagiography/hagio.htm.

Immordino-Yang, Mary Helen, Andrea McColl, Hanna Damasio, and Antonio Damasio. 2009. "Neural Correlates of Admiration and Compassion." *Proceedings of the National Academy of Sciences* 106(19):8021–26.

Jefferson, Thomas. 1975. Letter to Robert Skipwith. In *The Portable Thomas Jefferson*, ed. Merrill D. Peterson, 349–51. New York: Penguin.

Keen, Ian. 2004. *Aboriginal Economy and Society*. Melbourne, Australia: Oxford University Press.

Keesing, Roger. 1975. *Kin Groups and Social Structure*. New York: Holt, Rinehart and Winston.

Kempis, Thomas à. 1940. *The Imitation of Christ*. Translated by Aloysius Croft and Harold Bolton. Milwaukee, WI: The Bruce Publishing Company.

Kurland, Jeffrey A., and Steven J. C. Gaulin. 2005. "Cooperation and Conflict Among Kin." In *The Handbook of Evolutionary Psychology*, ed. David M. Buss, 447–82. Hoboken, NJ: John Wiley.

Macaulay, Jacqueline. 1970. "A Shill for Charity." In *Altruism and Helping Behavior*, ed. Jacqueline Macaulay and Leonard Berkowitz, 43–59. New York: Academic Press.

May, Herbert G., and Bruce M. Metzger, eds. [1973] 1977. *The New Oxford Annotated Bible with Apocrypha. Revised Standard Version: An Ecumenical Study Bible*. New York: Oxford University Press.

Middleton, John. 1960. *Lugbara Religion*. Oxford: Oxford University Press.

Oliner, Samuel P. 2003. *Do Unto Others: Extraordinary Acts of Ordinary People*. Boulder, CO: Westview Press.

Palmer, Craig T. 2010. "Cultural Traditions and the Evolutionary Advantages of Non-Innovation." In *Innovation in Cultural Systems: Contributions from Evolutionary Anthropology*, ed. Mike O' Brien and Stephen Shennan, 161–74. Cambridge, MA: MIT Press.

Palmer, Craig T., Ryan O. Begley, Kathryn Coe, and Lyle B. Steadman. In press. "Moral Elevation and Traditions: Ancestral Encouragement of Altruism through Ritual and Myth." *Journal of Ritual Studies*.

Palmer, Craig T., and Kathryn Coe. 2010. "Parenting, Courtship, Disneyland and the Human Brain." *International Journal of Tourism Anthropology* 1(1):1–14.

Palmer, Craig T., Eric B. Fredrickson, and Christopher F. Tilley. 1997. "Categories and Gatherings: Group Selection and the Mythology of Cultural Anthropology." *Evolution and Human Behavior* 18:291–308.

Palmer, Craig T., Emily K. Groom, and Jordan H. Brandon. 2012. *Kindness, Kinship, and Tradition in Newfoundland/Alberta Migration*. St. John's, NL: Institute of Social and Economic Research.

Palmer, Craig T., and Lyle B. Steadman. 1997. "Human Kinship as a Descendant-Leaving Strategy: A Solution to an Evolutionary Puzzle." *Journal of Social and Evolutionary Systems* 20(1):39–51.

Perkins, Judith. 1995. *The Suffering Self: Pain and Narrative Representation in the Early Christian Era*. London: Routledge.

Rice, Marnie E., and Joan E. Grusec. 1975. "Saying and Doing: Effects on Observer Performance." *Journal of Personality and Social Psychology* 32:584–93.

Rushton, Philippe, J. 1975. "Altruism and Cognitive Development in Children." *British Journal of Social and Clinical Psychology* 14:341–49.

Salza, John. 2007. "Saints and Intercessory Prayer." *Scripture Catholic*. Accessed May 28, 2012. http://www.scripturecatholic.com/saints.html#saints-IV.

Silvers, Jennifer, and Jonathan Haidt. 2008. "Moral Elevation Can Induce Lactation." *Emotion* 8:291–95.

Sprafkin, Joyce N., Robert M. Liebert, and Rita W. Polous. 1975. "Effects of a Prosocial Televised Example on Children's Helping." *Journal of Personality and Social Psychology* 48:35–46.

Steadman, Lyle B., and Craig T. Palmer. 1995. "Religion as an Identifiable Traditional Behavior Subject to Natural Selection." *Journal of Social and Evolutionary Systems* 18(2):149–64.

———. 2008. *The Supernatural and Natural Selection: The Evolution of Religion*. Boulder, CO: Paradigm Publishers.

Stein, Aletha. K., and Lynette K. Friedrich. 1972. "Television Content and Young Children's Behavior." In *Television and Social Learning*, ed. John P. Murray, Eli A. Rubinstein, and George A. Comstock. Washington, DC: U.S. Government Printing Office.

Tillotson, Dianne. 2006. "Saints and Martyrs." Last modified October 2, 2006. http://medievalwriting.50megs.com/word/saints.htm.

Trivers, Robert L. 1971. "The Evolution of Reciprocal Altruism." *Quarterly Review of Biology* 46:35–57.

———. 1974. "Parent-Offspring Conflict." *American Zoologist* 14:249–64.

Vianello, Michelangelo, Elisa Maria Galliani, and Jonathan Haidt. 2010. "Elevation at Work: The Organizational Effects of Leaders' Moral Excellence." *Journal of Positive Psychology* 5:390–411.

Voland, Eckart, and Renato Voland. 1995. "Parent-Offspring Conflict, the Extended Phenotype, and the Evolution of Conscience." *Journal of Social and Evolutionary Systems* 18:397–412.

Palmer, Craig T. 2010. "Cultural Traditions and the Evolutionary Advantages of Non-Innovation." In *Innovation in Cultural Systems: Contributions from Evolutionary Anthropology*, eds. Mike O' Brien and Stephen Shennan, 161–74. Cambridge, MA: MIT Press.

Weinstein, Donald, and Rudolph M. Bell. 1983. *Saints and Society*: *The Two Worlds of Western Christendom*, *1000–1700*. Chicago: University of Chicago Press.

West, Stuart A., Claire El Mouden, and Andy Gardner. 2011. "Sixteen Common Misconceptions about the Evolution of Cooperation in Humans." *Evolution and Human Behavior* 32:231–62.

West-Eberhard, Mary Jane. 1975. "The Evolution of Social Behavior by Kin Selection." *Quarterly Review of Biology* 50:1–33.

Wright, Robert. 1994. *The Moral Animal: Why We Are the Way We Are*. New York: Vintage.