Yang and Yin and Heaven and Hell:

Untangling the Complex Relationship Between Religion and Intolerance

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Religious faith deserves a chapter to itself in the annals of war technology, on an even footing with the longbow, the warhorse, the tank, and the hydrogen bomb.

-- Richard Dawkins (1989), *The Selfish Gene*

The baseness so commonly charged to religion's account are thus, almost all of them, not chargeable to religion proper, but rather to religion's wicked practical partner, the spirit of corporate dominion. And the bigotries are most of them in their turn chargeable to religion's wicked intellectual partner, the spirit of dogmatic dominion.

-- William James (1982/1902, p. 337), *The Varieties of Religious Experience*

Religion's relationship to intolerance, conflict, and mass violence is well-known, but controversial and poorly understood. Although religion has waxed and waned in perceived importance as a driver of conflict in human history, the rising share of worldwide violence attributed to extremists of one religion or another appears symptomatic of a worldwide resurgence in religion-related conflict and religiously-motivated intolerance and violence (Atran, 2002, 2003). This rise has brought renewed interest to the role of religion and culture in motivating intolerance and violence (Appleby, 2000; Juergensmeyer, 2003: Kimball, 2002; Nelson-Pallmeyer, 2003). As religion itself is often named a human universal in a species with tremendous cultural variation, its association with intolerance and support for violence, and potential explanations for these relationships, are of utmost importance.

In this chapter, we explore different components of the construct “religion”, especially for predicting socially relevant psychological phenomena like prejudice, intolerance, scapegoating and support for religious violence. Anthropologists, psychologists, philosophers, theologians, and even religious figures have often proposed distinctions between two different kinds of religion or religiosity, morally elevating one kind of religiosity at the expense of the other. This dual understanding of religion is remarkably recurrent, and the joints at which religion is carved often appear to be similar across perspectives, temperaments and life callings. Specifically, those who divide religiosity generally divide it between subjectively-centered natural-organic religiosity (e.g. inward revelation, personal religious experience), and socially transmitted cultural religiosity (e.g. learned doctrines, practices and social identities; what one dogmatically believes to be true and false). We dispute the notion that subjective-natural and objective-cultural religiosity are inversely related or even orthogonal, instead proposing that they are best understood as bound together, sometimes quite tightly bound together. With regard to predicting religious intolerance and support for religious violence, we argue against carving religion into empirically inverse or unrelated elements, arguing specifically against the utility of the intrinsic/extrinsic religiosity dichotomy commonly employed in the religion and prejudice literature and in the psychology of religion generally (Allport & Ross, 1967). We find that the aspect of religion that involves devotion to the supernatural or to a specific supernaturally-grounded faith and practice (devotional religiosity) indeed goes along with the aspect that involves adopting one religious community’s epistemic and moral vision as true, and treating all deviations from that moral vision as false, dangerous, alien or degenerate (coalitional religiosity).

As empirically related as these aspects of religion are, our research has found that they have opposite relationships to religious intolerance: coalitional religiosity independently predicts intolerance and scapegoating, and devotional religiosity independently predicts tolerance and rejection of scapegoating. With an eye to developments in the cognitive sciences, evolutionary psychology and cultural psychology, we explore why these distinct aspects of religiosity might be so tightly bound together and yet be associated with opposite social attitudes towards outgroups.

Grounding religion in an evolutionary framework

An evolutionary approach to religion attempts to explain most religious phenomena as arising from adaptive group selection (Wilson, 2002), adaptive individual selection (e.g., Sosis & Alcorta, 2003; Landau, Greenberg, & Solomon, 2004), or some invocation of individual selection that at best sees religion as an exaptation, spandrel or "byproduct" of other adaptive psychological tendencies (Atran & Norenzayan, 2004; Boyer, 2003; Guthrie, 1993).

Whether invoking notions of group selection or individual selection, adaptation, exaptation or spandrel, however, scientific researchers into religion increasingly consider religion "natural" or organic, in the sense that religion is rooted in ordinary human cognition and transmitted via social interactions among individuals (see Atran, 2002; Barrett, 2000; Boyer, 2001; Lawson & McCauley, 1990; Pyysiäinen & Anttonen, 2002). This emphasis on the natural or organic aspect of religion as being paramount is itself a departure from the previously reigning paradigm in the social sciences treating religions and cultures as primarily superorganic, i.e. brought about, maintained and developed through processes that are irreducible to individual mind/brain mechanisms. The most

radical examples of such a seemingly superorganic process is Durkheim's (1915/1965) view of religion as an organizer of social life that supersedes individual psychology, and also Dawkins' (1989) famously hypothesized "meme"--a faithfully self-replicating unit of information, analogous to yet fully independent from the gene. Indeed, religious and cultural changes (perhaps including the apparent genesis of culture and religion itself) appear to have some degree of independence from genetic changes, yet the afore-mentioned research into the natural origins of religion is accumulating evidence that religious thought and behavior are shaped by psychological inclinations rooted in natural selection.

Generally, those of us who take naturalized approaches to religion do not dispute, and in fact take great interest in, the processes of cultural transmission that shape religious thought and behavior. However a natural science of religion ought to take its starting point the psychological building blocks of religion—those elements, possibly rooted in human evolution, that tend to reoccur across time and place and may canalize the cultural transmission of religion into predictably convergent yet culturally distinct pathways. Anthropologically-speaking, there is a near universality of 1) belief in supernatural agents who 2) relieve existential anxieties such as death and deception, but 3) demand passionate and self-sacrificing social commitments, which are 4) validated through emotional ritual (Atran & Norenzayan, 2004). There are salient similarities to be found between even the most radically divergent cultures and religions (Norenzayan & Heine, 2005). There are even traces of ritual, cooperative and self-sacrificing behavior in the animal kingdom (Burkert, 1996). All this suggests that religion, for all its variation, may contain a common scaffolding ultimately rooted in the slow processes of evolution

by natural selection. If we are to go beyond proximal explanations of the relationship of religion to prejudice, intolerance and war, an evolutionary paradigm can be immensely helpful.

The Multiplicity of the construct "religion"

Even before seeking to explain religion's relationship to intolerance, however, it helps to adopt an understanding of religion that is neither too monolithic to be credible nor too pluralistic to be coherent. Because the phenomena of religion are so many and varied—or at least because "religion" as a word can be used to refer to so many different kinds of thought and behavior--it makes some sense to try to organize religious phenomena according to a minimal set of psychologically plausible tendencies. For centuries, those who have attempted to explain religion (and even those who have propagated certain religions) have often distinguished two aspects of religion, treating them not only as distinct but also as opposites. For predicting religious intolerance, a dual understanding may reflect a relatively reliable and practical differentiation of one broad group of religious phenomena from another.

Dual understandings of religion generally consider a sense of the omnipresence of the divine (whether sensed directly and spontaneously or with the aid of prayer, meditation or drug-ingestion) more subjective/natural than it is socially transmitted/cultural. It would require a separate paper to review the intellectual history of attributing the experience of divinity to something inward, personal and subjective, in contrast to the absorbing of collective religious identity and religious creed and dogma as outward, cultural and objective. Some illustrative examples are: James' (1982/1902) distinction between the "babbling brook" from which all religions originate (p. 337) and

the “dull habit” of “second hand” religion “communicated … by tradition” (p. 6) as well as that between “religion proper” and corporate and dogmatic dominion (p. 337); Freud’s (1930/1961) distinction between the “oceanic feeling” as an unconscious memory of the mother’s womb and “religion” as acceptance of religious authority and morality as a projection of the father; Weber’s (1947, 1978) distinction between religious charisma in its basic and “routinized” forms; Adorno’s distinction between “personally experienced belief” and “neutralized religion” (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950); Rappaport’s (1979) distinction between the “numinous”—the experience of pure being--and the “sacred” or doctrinal; and, more recently, Sperber’s (1996) cognitive distinction between “intuitive” beliefs—“the product of spontaneous and unconscious perceptual and inferential process” (89), and “reflective” beliefs “believed in virtue of other second-order beliefs about them.” It is not only modern 20th and 21st Century philosophers and social scientists who have made this distinction. Even the Christian Apostle Paul elevated “the Spirit” of the new Christian convent over “the letter” (2 Corinthians 3:6), a distinction he equated with that between giving life and killing. The text that inspired the Daoist religious and philosophical movements, the Dao De Jing, parallels this distinction between the revelatory and the culturally transmitted by warning against the decline from intuitive knowledge of the Way to an attachment to the trappings of ritual:

> When Tao is lost, there is goodness. When goodness is lost, there is kindness. When kindness is lost, there is justice. When justice is lost, there is ritual. Now ritual is the husk of faith and loyalty, the beginning of confusion.(Feng and English trans., 1972)

In all of these dual understandings, the subjective/natural is named and discussed in a more positive light than the cultural/socially-transmitted and they are sometimes even treated as mutually exclusive orientations. Assigning opposite moral valence to subjective-natural and objective-cultural religion makes them seem more like dichotomies than distinctions, bitter rivals that cannot easily cooperate towards a common end anymore than good and evil should cooperate to a common end. With a more dialectical perspective, however, one could view these dichotomies not as rivals but as complementary elements that harmonize with each other as the dark and light droplets of the Daoist yin-yang symbol are thought to complement and harmonize with each other. With a dialectical understanding of religion, we may see subjective-natural and objective-cultural religion not as incompatible competitors, but as complementarily-skilled partners, each containing an element of the other, each reinforcing each other's existence. There may still be a place for a heaven-hell understanding of devotional and coalitional religiosity, however, where one droplet deserves moral praise the other moral blame, and harmonious coexistence between the droplets, even if empirically demonstrable, reflects a mere interlude before the inevitable divorce.

Interestingly the model that best reflects this nuanced understanding of religion may have been that of William James, quoted at beginning of this chapter. James spoke in excoriating terms of "corporate dominion" and "dogmatic dominion" and yet admitted that each may be a "practical...and…intellectual partner" of religion respectively. James generally admired "religion proper" and was somewhat defensive about its pollution by its "wicked" partners. Even if corporate and dogmatic dominion rarely if ever divorced themselves from "religion proper", James might have had good moral reasons to wish for

such a divorce. Specifically, if corporate and dogmatic dominion predicted prejudice, intolerance and war while "religion proper" predicted openness, tolerance and peace then wishing for a divorce was quite reasonable for someone who morally preferred openness to prejudice, tolerance to intolerance and peace to war. Was James right to perceive such different moral natures among such close partners? In the following sections we will illustrate how our studies of religion and religious intolerance offer support to James' paradoxical assessment.

How to isolate "religion proper" from its "wicked" partners

One way to see how religious devotion relates to tolerance independent of anything like corporate and dogmatic dominion is to isolate the different constructs with different measures and see whether the different measures make different predictions. The measures we are most concerned with are those tapping religious devotion, rooted in supernatural belief, and coalitional religiosity, rooted in the costly commitment to a community of believers—a community that is morally and epistemically elevated above other communities. Religious devotion centers on the awareness of and attention to God or the "divine" broadly conceived. A typical religious devotion scale item would be "My religion involves all my life" or "In my life I feel the presence of God." (both from Hoge's [1972] Intrinsic Religious Motivation scale).

Coalitional religiosity, on the other hand, should be approximated by validated scales measuring what social psychologists consider coalitional boundary-setting social tendencies, such as authoritarianism, fundamentalism, dogmatism and related constructs (e.g., Kirkpatrick 1999), These constructs all unquestioningly exalt one way of living and understanding as morally and epistemically superior to others, thus conveying

unswerving loyal commitment to a specific identity and ideology. Typical coalitional items would be "The things I believe in are so completely true, I could never doubt them" (from Altemeyer's [1996] dogmatism scale) or "When our government leaders condemn the dangerous elements in our society, it is the duty of every patriotic citizen to help stomp out the rot that is poisoning our country from within" (from Altemeyer's [1999] authoritarianism scale) or "There is a complete, unfailing guide to Divine happiness and salvation, which must be totally followed." (from Altemeyer & Hunsberger's [1992] Religious Fundamentalism scale). We call these items "coalitional religiosity" not because they always explicitly convey a concern with membership in a coalition but because they reflect an absolute and exclusive attachment to one particular epistemic and moral understanding. It is theoretically possible to be rigidly committed to one's own personal and privately-developed understanding, but we assume such rigid stances generally derive from half-understood dogmas and moral prescriptions of one's group or its leadership. That is to say, it is generally from groups that we derive our rigid ideological attachments.

A statistical procedure called multiple regression makes it possible to see how coalitional and devotional variables independently predict intolerance. When religious devotion variables and coalitional variables are analyzed in a multiple regression for their relationship to religious tolerance, the regression procedure essentially freezes the empirical "partners" of religious devotion and looks at the independent part of religious devotion that still varies from less devoted to more devoted even as all of its partners are held in place (equal levels of authoritarianism, fundamentalism, etc across varying levels of religious devotion). This makes it possible to investigate the independent relationship

between religious devotion and intolerance while holding coalitional variables constant. A few studies in the literature have found that if one holds authoritarianism or fundamentalism constant, then a religious devotion measure like Christian orthodoxy[1] can have a *negative* relationship to prejudice, even a religiously-sanctioned prejudice like anti-gay prejudice (Kirkpatrick, 1993; Laythe, Finkel, Bringle, and Kirkpatrick, 2002; Rowatt & Franklin, 2004). This is in spite of the fact that the Christian orthodoxy scale is positively correlated with every item on Altemeyer's authoritarianism scale (Altemeyer, 1988), which we consider a coalitional variable and is a robust predictor of many different kinds of prejudice (Altemeyer, 1981, 1988, 1996). Our research also shows tolerant potential in religious devotion even when the dependent variable is religious intolerance instead of race prejudice or anti-gay prejudice. Whether measured by Hoge's (1972) intrinsic religiosity scale (a measure of devotional religiosity), or by a related scale (devotion to the divine) adapted from Fiorito & Ryan (1998) or by self-reported prayer frequency, religious devotion is often negatively related to religious intolerance when measures of coalitional attitude are controlled for—even if devotion is positively related to intolerance when coalitional attitude is not controlled for.

In statistics, when a certain relationship emerges between variables only when controlling for other variables, the variable with the hidden independent relationship is called a suppressor variable (Cohen & Cohen, 1975; Conger, 1974). Suppressor variables are difficult phenomena to understand when described abstractly, but in one of our studies we luckily had data that allowed us to illustrate it visually and intuitively. In Figure 1, a procedure called "median split" was used on a sample of 194 Canadian

[1] A scale that, as named, sounds like a measure of credal fundamentalism, but in its actual content (see cite) is more of a positive statement of faith in Christianity than an epistemic and moral elevation of Christianity above other faiths.

students who were divided into two groups of 97 by their scores on religious devotion (the average of two devotion scales)—the higher scorers of the sample were in one group (devoted) and the lower scorers in the other group (not devoted). This sample was taken from Study 2 in Hansen & Norenzayan (2005). Since authoritarianism, dogmatism, fundamentalism and exclusivity also covaried with devotion, the more devoted group was also more authoritarian, dogmatic, fundamentalist and exclusivist. As for intolerance (Figure 2), the more devoted group was more intolerant than the non-devoted group on one measure (civil intolerance, or willingness to violate the civil and political rights of religious others), more tolerant on another (religious/moral violence—specifically support for "killing the wicked"), but not different on the other measures. This pattern of religious devotion predicting some kinds of tolerance and other kinds of intolerance but being generally orthogonal to tolerance is consistent with the many contradictory and null findings in the religion and prejudice literature (Donahue, 1985; Kirkpatrick & Hood, 1990).

Figures 3 and 4 illustrate how this uninteresting finding becomes interesting. In Figure 3, again we split the sample in half, but in order to hold coalitional attitude constant, we divided the sample not simply with a median split based on religious devotion scores, but based on a "more devoted than coalitional" score. We created this score by subtracting the average of the four coalitional variables from the average of the two devotional variables, or {[(divine devotion + religious devotion)/2] – [(authoritarianism + fundamentalism + dogmatism + exclusivity)/4]}. While this formula bears no resemblance to the formulas used in multiple regressions, splitting the sample by this formula luckily accomplished what a multiple regression effectively does: holding

some variables constant while allowing other variables to vary. As shown in Figure 3, authoritarianism, fundamentalism, dogmatism, and exclusivity are a lot less different between the two groups than they were in figure 1: these coalitional attitude variables are more or less held constant between the devoted group and the not devoted group. Even with this more controlled division of the devoted from the non-devoted, the devoted group is above the mean of the scale (5) and the non-devoted group is below it. Figure 4 shows that with this more controlled division of the sample between the devoted and non-devoted, the devoted group was LESS intolerant on all measures, even on civil intolerance (recall that the devoted group was MORE intolerant on this measure when coalitional variables were not controlled).

To summarize, when not controlling for coalitional attitude (Figures 1 and 2), the religiously devoted showed a generally orthogonal (zero) relationship to tolerance; but when coalitional attitude was controlled for (Figures 3 and 4), they showed less intolerance on all measures. These figures mirror the pattern found with multiple regression. In multiple regression, the independent effect of religious devotion positively predicted religious tolerance when controlling for coalitional attitude (as well as for religious affiliation, ethnicity, and nation of birth). The independent core of religious devotion appears to be related to tolerance.

The Role of Devotional and Coalitional Religiosity in Support for Violence

Even in the face of this evidence one may still argue that this independent core of religious devotion is only related to tolerance when there is something tolerant to be found in a specific religious or cultural milieu: Figures 1 through 4 describe a Canadian sample composed mostly of the religiously unaffiliated, Christian, and Buddhist college

students. College students have a reputation for tolerance. Canada has a reputation for tolerance. The unaffiliated are thought to be more tolerant than the affiliated. Buddhism has a reputation for tolerance as a religion and the plurality Christian West has a reputation for tolerance as a culture. Both halves of the sample had coalitional scores below the midpoint of the scale. Perhaps this sample provided unusually ample opportunities for religiosity to be expressed in a tolerant way. But we found similar results in a non-Western Malaysian sample, with religious devotion predicting intolerance when not controlling for coalitional attitude, and predicting tolerance when coalitional attitude was controlled for (Hansen & Norenzayan, 2005). In Malaysia, coalitional feeling ran considerably higher, yet the pattern of relationships was the same.

In an effort to investigate this phenomenon with a broader cross cultural sample, we examined an international sample of 10,069 people in ten nations: the US, the UK, Israel, South Korea, India, Indonesia, Lebanon, Russia, Mexico and Nigeria (Hansen & Norenzayan, 2005; Ginges, Hansen & Norenzayan, 2005). Representative samples were drawn in each of the ten countries. Participants in these nations had completed a survey about religious attitudes carried out under the auspices of the British Broadcasting Corporation (BBC) in 2004. As an indicator of religious devotion we looked at frequency of prayer. As indicators of coalitional attitude and behavior we looked at frequency of attendance at organized religious services and a statement of religious exclusivity: "My God (beliefs) is the only true God (beliefs)." We call this "exclusivity" because it asserts the truth of one's own beliefs to the exclusion of all other beliefs. As with all of our studies, devotional and coalitional measures were positively and substantially related to one another, all *r*'s > .3. One measure of intolerance we looked at

was a statement scapegoating other religions: “I blame people of other religions for much of the trouble in this world.” Again, we used regressions to analyze how each aspect of religiosity independently predicted scapegoating. Again, we found that exclusivity was a positive independent predictor of scapegoating, while prayer was a negative independent predictor. Attending religious services was not an independent predictor when other predictors were controlled for. Religious affiliation, nation surveyed, work type, gender and age were all controlled for.

To illustrate the results of the regressions more intuitively, we divided the 10,069 participants up into eight subsamples based on the different aspects of religious engagement to see how adding prayer, adding exclusivity, and adding religious attendance are associated with different levels of scapegoating. It is possible to compare two groups that are otherwise similar, but differ only on one aspect of religiosity, e.g. looking at those who attend services but do not pray as compared with those who attend and pray to see what prayer contributes to scapegoating among attenders.

Although we only report data for the full sample in this article, if the sample is divided by religion (Christians, Jews, Muslims, Hindus) and each religion divided into the eight subcategories, the results are remarkably similar to the full sample, especially with regard to the effect of prayer. In this case, however, some of the eight categories have very few people associated with them, so differences in the means are difficult to interpret by themselves. These are the eight categories into which we divided the sample.

:

1. PRAY ONLY: Those who pray regularly (but are not regular attenders or exclusivists) [N = 493]

2. ATTEND ONLY: Those who are regular attenders (but are not regular prayers or exclusivists) [N = 160]
3. EXCLUSIVIST ONLY: Those who are exclusivists: say their God is the only true God(but are not regular prayers or attenders) [N = 1411]
4. PRAY + ATTEND: Those who are prayers and attenders only (not exclusivists) [N = 543]
5. PRAY + EXCLUSIVIST: Those who are prayers and exclusivists only (not attenders) [N = 1344]
6. ATTEND + EXCLUSIVIST: Those who are attenders and exclusivists only (not prayers) [N = 420]
7. ALL THREE: Those who are prayers, attenders and exclusivists [N = 3497]
8. NONE: Those who are not regular prayers, attenders or exclusivists [N = 2200]

Thus, to examine what prayer contributes to scapegoating, we compared:

1. NONE with PRAY ONLY
2. ATTEND ONLY with ATTEND + PRAY
3. EXCLUSIVITY ONLY with EXCLUSIVITY + PRAY
4. ATTEND + EXCLUSIVITY with ATTEND + EXCLUSIVITY + PRAY

These comparisons are graphed in Figure 5. Note that the group that prays is always less scapegoating than the comparable group that does not. The scapegoating difference between the praying and the not praying is not confined to the mostly secular (not attending and not exclusive) but also is evident among the most coalitionally religious (both exclusivist and attending organized services). This suggests that a decline

in prayer (or subjectively experienced faith generally) among the fundamentalist (coalitionally religious) may be associated with greater intolerance rather than greater tolerance. This finding is in contrast to the widely-held belief that secularization is the surest path to religious tolerance. Since prayer's independent association with decreased scapegoating is true across religious groups (as mentioned previously, Jews, Christians, Hindus and Muslims examined separately all show the pattern of Figure 5), this also challenges the idea that devotional processes yield tolerance in some religions and intolerance in others. There are discernible group differences between religions in coalitional religiosity, devotional religiosity and intolerance. Yet prayer is associated with tolerance regardless of the relative intolerance of the religion that the prayer is associated with. By this analysis, many religions appear to contain potential for tolerance, and that potential may lie in part in prayer, or perhaps more generally in subjectively experienced religious devotion, of which regular prayer would be one manifestation. It is interesting to note that prayer is a stronger independent predictor of belief in God and importance of religion in one's life than religious attendance and exclusivity (Ginges, Hansen, & Norenzayan, 2005). In fact, we also found that multi-item measures of religious devotion (intrinsic religiosity, devotion to the divine) also predict belief in God better than coalitional religiosity (authoritarianism, exclusivity) (Hansen & Norenzayan, 2003). Since what best predicts belief in God also best predicts tolerance, these results are especially challenging to any secularization-promotes-tolerance hypothesis.

Regular prayer correlates substantially with belief that one's God or beliefs is the only true God or beliefs, $r\ (10069) = .40$. Yet it is possible that the independent contribution of exclusivity to scapegoating is the opposite of prayer's independent

contribution to scapegoating. To examine what exclusivity contributes to scapegoating, we compared:

1. NONE with EXCLUSIVITY ONLY
2. ATTEND ONLY with ATTEND + EXCLUSIVITY
3. PRAY ONLY with PRAY + EXCLUSIVITY
4. ATTEND + PRAY with ATTEND + PRAY + EXCLUSIVITY

These comparisons are graphed in Figure 6. Note that the group that is exclusive is always more scapegoating than the comparable group that is not. This is in stark contrast to the effect of prayer.

To examine what regular attendance at religious services contributes to scapegoating, we can compare:

1. NONE with ATTEND ONLY
2. EXCLUSIVITY ONLY with EXCLUSIVITY + ATTEND
3. PRAY ONLY with PRAY + ATTEND
4. PRAY + EXCLUSIVITY with PRAY + EXCLUSIVITY + ATTEND

These comparisons are graphed in Figure 7. In this case, attendance adds surprisingly little or nothing to scapegoating—increasing scapegoating only when compared with a prayer only condition. As mentioned earlier, these results essentially mirror the findings of the multiple regressions: exclusivity is a positive predictor of scapegoating, prayer a negative predictor, and attendance not an independent predictor.

Although religious attendance did not appear to independently predict blame, in other studies (Ginges et al, 2005) religious attendance showed more evidence of being a potentially coalitional variable relative to prayer. In a representative sample of Muslim

West Bank Palestinians, frequency of religious attendance predicted support for suicide attacks on Israelis (more mosque attendance was related to more support), but frequency of prayer was unrelated to support for such attacks. Similar results were obtained in an experimental study among religious Jewish settlers in the occupied territories; in this case reminders of synagogue attendance produced substantial support for Baruch Goldstein's historic suicide attack on Palestinian worshippers at the Machpela Cave mosque in 1994, whereas reminders of prayer did not.

In Study 3 of Ginges et al (2005) we amended our measure of scapegoating in the BBC study to count only scapegoaters of other religions who were also willing to die for their God or beliefs (thus creating a more stringent two-variable measure of support for combative martyrdom). Using this measure our findings supported those of Ginges et al (2005). In the six different faiths that we examined (comprising the majority faiths of six different nations: Protestants in the UK, Catholics in Mexico, Russian Orthodox in Russia, Jews in Israel, Muslims in Indonesia and Hindus in India), regular attendance was a greater positive predictor of combative martyrdom than regular prayer (which was, in some cases, a nominally negative predictor of combative martyrdom). When all six samples were combined, regular prayer was unrelated to combative martyrdom, while regular religious attendance was a significant positive predictor of combative martyrdom. Those who attended services regularly were more than twice as likely to endorse combative martyrdom (Ginges et al, 2005).

In contrast to predicting scapegoating alone, prayer was not a reliably negative predictor of combative martyrdom in the BBC study or in the West Bank study. Perhaps this is because these studies did not measure enough coalitional variables to partial out

the coalitional variance in prayer--in our studies in Malaysia and Canada failing to control for any two of the four coalitional variables left religious devotion with a null rather than negative relationship to intolerance. It may also have been because prayer was quite strongly correlated with martyrdom generally. In the BBC study, even when exclusivity and attendance were controlled for, prayer was still strongly related to willingness to die for one's God and beliefs (though prayer was less strongly associated with martyrdom than exclusivity). Willingness to die for God, however, is not on its face a prejudiced, intolerant, or violent attitude, though it certainly is a potentially self-sacrificing one. But when the self-sacrifice begins to take on a dimension of scapegoating, blaming or hostility to others, then religious devotion becomes unrelated to such tainted sacrifice, while coalitional religiosity maintains its positive relationship.

Reexamining the Religion and Prejudice Literature

Our seemingly paradoxical paradigm of religion and intolerance rests on the premise that the intolerance-predicting aspect of religion (coalitional attitude) is strongly correlated with the tolerance-predicting aspect (religious devotion). This marks a departure from the religion and prejudice literature, which has generally attempted to force a dichotomous understanding onto the aspects of religion to match a dichotomous understanding of prejudice. Dichotomous understandings of religion, however, have yielded messy, inconclusive, and contradictory findings on how religion relates to prejudice, an issue to which we now turn.

Gordon Allport (1950) is widely credited with beginning empirical investigations of religion and prejudice and of religion generally. Allport arguably got empirical investigations of religion and prejudice off on the wrong foot by speaking of "mature"

and “immature” religion, hypothesizing that “mature” or intrinsic religiosity was about directly experiencing one’s religious faith while “immature” or extrinsic religiosity was geared towards seeing religion as little more than a source of community or conventional moral values, friends, financial opportunities, etc. In this regard, Allport’s constructs map conceptually onto the widely-noted subjective/natural vs. objective/cultural distinction, but Allport, whose Protestant heritage likely inclined him to value the intrinsic as morally superior to the extrinsic (Cohen, Hall & Koenig, 2005) was disappointed to find that intrinsic and extrinsic religiosity, which were supposed to be mutually incompatible, were unrelated to each other rather than inversely-related (Allport and Ross, 1967). Even as unrelated measures, however, intrinsic and extrinsic religiosity were less than satisfactory tools for investigating how different aspects of religion predict prejudice. In the first couple of decades of research using Allport’s scales, extrinsic religiosity predicted racial prejudice and some other undesirable outcomes (Donahue, 1985). Intrinsic religiosity, while only occasionally predicting lack of prejudice, was generally orthogonal to prejudice, at least to racial prejudice (Donahue, 1985). Since early investigations, however, measures of intrinsic religiosity have produced a whole spectrum of relationships with different kinds of prejudice under different circumstances, ranging from negative (Duck & Hunsberger, 1999; Ponton & Gorsuch, 1988; Fisher, Derison & Polley, 1994) to orthogonal (Donahue, 1985) to positive (Duck & Hunsberger, 1999; Fisher, Derison & Polley, 1994; Herek, 1987; McFarland 1989)—with the prediction of prejudice often depending on the kind of prejudice explored.

Moreover, extrinsic religiosity has also shown inconsistent relationships with prejudice, predicting prejudice in Allport and Ross’s (1967) research and in many

occasions afterwards (see Donahue, 1985 for a review), but occasionally manifesting no relationship to prejudice (e.g. Griffin, Gorsuch & Davis, 1987) or even a negative relationship (Strickland & Weddell, 1972; Duck & Hunsberger, 1999). Further, extrinsic religiosity when measured as orthogonal to intrinsic has been found to have inadequate reliability (Trimble, 1997). When Hoge (1972) produced a psychometrically viable intrinsic religiosity scale with extrinsic reversed items, the three extrinsic items that fit in the scale were more indicative of a wholesale lack of religious devotion than an alternative socially-driven understanding of it (Batson, Schoenrade & Ventis, 1993). Generally, the body of literature on intrinsic and extrinsic religiosity has failed to reach empirically satisfying conclusions with regard to prejudice and intolerance (Kirkpatrick & Hood, 1990). These scales may still be useful for other pursuits, however, e.g. distinguishing the relative importance of socially-mediated and personally-felt religiosity in different religious faiths (Cohen, Siegal & Rozin, 2003).

Several researchers (e.g. Altemeyer, 1996; Batson et al, 1993; Kirkpatrick & Hood, 1990) have suggested that part of the problem may be that intrinsic religiosity scales are not the ideal measure of non-prejudiced "mature" religiosity. Rather, these scales indicate religious devotion or commitment, a psychological inclination that is widespread, but logically (and often empirically) orthogonal to prejudice generally conceived, and may be as easily held by "immature" as by "mature" religious people.

We hold that although the construct of intrinsic religiosity fails to capture "mature", or "intrinsic" religiosity (and thus is misnamed) it may nevertheless capture a kind of generalized subjectively rich devotion. As a measure of devotion, intrinsic religiosity may yield the odd relationships with prejudice recorded in the literature

because religious devotion tends to go along with coalitional attitudes. This relationship between intrinsic religiosity and coalitional variables was not a novel finding in our research but is documented in numerous studies (Duck & Hunsberger, 1999; Kahoe, 1975; Leak & Randall, 1995; Moghaddam & Vuksanovic, 1990; Watson, Sawyers & Morris, 2003). This fits with William James' assertion that corporate and dogmatic dominion are partners of religion proper.

In fact, when evolution-minded social scientists propose any possible utility or value in religion to survival and procreation, that utility is often described in terms of religion's value to coalition-building (Kirkpatrick, 1999; Sosis & Alcorta, 2003; Wilson, 2002). Since all our measures of coalitional attitude are empirically related to some kind of prejudice or other, coalitional attitude appears to be a kind of middleman between religious devotion and prejudice or intolerance. When this middle-man is statistically held out of the picture, religious devotion appears, at the least, unrelated to intolerance, and in many cases, inversely related to it.

Coaltional religiosity is likely rooted in the costly sacrifice to the community of believers that is the hallmark of religion. As evolutionary theorists have noted, sacrificial displays can be selected for if carriers of honest signals of group membership are more likely to be reciprocated by a community of cooperators. Even in rights-oriented "individualist" cultures, one is expected to sacrifice all selfish gains that might accrue from being on the benefiting end of injustice towards others. Atran (2002) and others (Atran & Norenzayan, 2004; Sosis & Alcorta, 2003) note that sincere expressions of willingness to make any kind of sacrifice (including the potential ultimate sacrifice of one's own life) only occasionally necessitate actually following through on that sacrifice

in a way that has long term costs to the potential for survival and reproduction of the genes carried by that individual. However, the material and social support benefits that can accrue to those who sincerely express or demonstrate such willingness are both more likely to occur and are of more obvious value to the long term survival of one's genes—unless one is among the unlucky individuals whose sincere demonstration involves actually dying before reproductive potential is maximized (and even then, socially-given benefits to close kin may offset the genetic loss of one individual). This "adaptive sacrifice display" explanation for religious devotion is related to the evolutionary concept of "costly signaling", a process that explains many forms of sacrificial displays in the animal kingdom, for example, why male peacocks who burden themselves with more costly plumage may nevertheless be more likely to pass on their genes, by increasing their chances of mating with a receptive female. Costly signaling theory offers an explanation of why humans engage in altruistic displays such as sacrifice and ritual without treating the group as a unit of selection (Sosis & Alcorta, 2003).

Does Religious Devotion Foster Empathy and Self-Boundary Transcendence?

That coalitional religiosity encourages intolerance towards outgroups seems obvious. But it is less clear why devotional religiosity can, under some conditions, foster tolerance. Some evidence from neuroscience may help us with a novel speculation as to the process by which devotional experience may lead to transcendence of group boundaries. Neuroscience investigations of religion[2] tend to focus exclusively on the

[2] In citing neurotheological investigations, we are neither endorsing nor critiquing the scientific merit of this research. Regardless of whether the conclusions of neurotheological investigations follow from the evidence, we find these conclusions illustrative of a widespread and, we think, plausible intuition that religious experience is at least in part about self-transcendance, specifically transcendence of the boundary between self and other.

spiritual, meditative, or ecstatic aspects of religious experience (d'Aquili & Newberg, 1999) and almost never with the coalitional aspects. Some investigations (e.g. Holmes, 2001; d'Aquili & Newberg, 1998, 1999; Newberg, d'Aquili & Rause, 2001) have found that when people are subjectively experiencing a transcendent or supernatural-oriented state, there is often decreased activity in the parietal lobe or other object association areas, where perceptions that distinguish self from non-self are processed. The frontal lobes known to be associated with sense of self (Edwards-Lee & Saul, 1999) and theory of mind (Brune, 2005) are also implicated in religious practices (McNamara 2001, 2002; McNamara, Andresen, & Gellard, 2003) including meditation (Newberg et al, 2001) and religious recitation (Azari et al, 2001), both of which are common in prayer. These areas may play a role in any relationship prayer might have to greater tolerance, empathy or other-concern, since they all seem potentially relevant to whether sense of self is experienced in a more limited or more expansive way. Perhaps commonplace empathic experiences of seeing oneself in another or caring for another as one would care for oneself have some family relationship to rarer mystical experiences of "oneness" and even to more extreme cases where the self-other boundary melts down completely[3].

It is reasonable, though admittedly speculative, to guess that any area of the brain generally involved in breaking down distinctions should have some relevance to breaking down distinctions between oneself and other closely-related individuals. This breakdown may well be involved in enabling identification with a group as extended social self—an

[3] Holmes (2001) notes that persons whose parietal superior lobes were damaged or destroyed suffer an agonizing disability, in that they experience great difficulty in distinguishing between themselves and the rest of the world. This condition makes it difficult, for example, for the patient to walk, because he's unsure of where the floor ends and his foot begins, or even to sit down, because he doesn't know where his body ends and the chair begins. This is not unlike the mystical experience that is reported by deep meditators, of being "at one" with the universe. For these patients, being "at one" with the universe is such a constant experience, performing tasks that require the simple differentiation between "self" and "world" become extraordinarily difficult.

identification of obvious relevance to coalitional religiosity. Coalitional concerns are not central to typical religious experience, however. This breakdown of the distinction between self and other appears more directly bound up in feeling emotionally and even viscerally related to something far greater than both oneself and any finite group: God or some other supernatural being or reality. It is plausible that this feeling of connection with this numinous realm may often stop at or recede after time to a more limited sense of connection with an identifiable human group, perhaps because human groups are easier to integrate into understanding and decision-making than are numinous mystical deities. Nevertheless, numinously-oriented beliefs and practices may potentially lead in some cases to a much greater openness, even an expansion of one's moral circle to include humanity at large, with all of its different nations, races, religions and ways of living.

This sort of broad transcendent manifestation of religion may express itself infrequently, however, as evidenced by religious devotion's unclear relationship to tolerance when coalitional religiosity is not controlled. Coalitional religiosity arguably reflects a limited kind of self-transcendence that simply upgrades individual selfishness to group selfishness, sometimes with dramatically violent consequences. Yet religious devotion's independent relationship to tolerance suggests that religion has the potential to transcend group selfishness as well. It is almost as if a more limited religious transcendence is in tension with a more thoroughgoing transcendence. What lies beyond group selfishness we may dub "God-selfishness," a focus of oneself on a God or divine being or principle that is transcendent of all individuals and groups, including oneself and one's own groups. God-selfishness would appear to be what religious devotion measures

tap into when the variance of coalitional religiosity is controlled for. To the extent that this broader transcendence of self often manifests itself as a tolerant sense of kinship with all, then it would appear to render Dawkins' pessimism about religion unwarranted.

Whether or not pessimism is warranted, circumspection certainly is. Religious devotion is a tenuously broad expansion of selfishness, one that might often revert to a strain of group selfishness or individual selfishness enhanced by religious self-deception and narcissism, as observers of religious persecution and hypocrisy will readily attest. Nevertheless, our findings suggest that religious devotion is more than a hypocritical disguise for individual selfishness and group selfishness. Such devotion also appears to co-exist with a genuine concern for all people, and perhaps even for all beings. Moreover, the God-selfishness of religious devotion appears potentially more attuned to this all-embracing concern than individual selfishness or group selfishness stripped of supernatural understanding.

In English the word "religion" is related to the Latin word *religio, religere* meaning to bind together. The individuals that religion binds together may form groups that do as much or more violence to each other than the individuals might have done on their own out of unaligned selfishness. Yet to the extent that people experience some degree of self-transcendence in prayer and other acts of devotion, a broad feeling of connectedness with others may result. This connectedness may make intolerance and violence less appealing for that moment of devotion and perhaps, over time, as a chronic habit of mind and behavior. Transcendent moments pass, and the many forces that generate human conflict will likely continue to be a part of the human drama. But when religious transcendence is broad rather than narrow, it has the potential to contribute to a

world where the bloody rivalries of nation, race and religion are known only as shadowy memories of fading history.

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Figure Caption

Figure 1. Means on religiosity variables for a Canadian sample (simple median split on religious devotion)

Figure 2. Means on intolerance variables for a Canadian sample (simple median split on religious devotion)

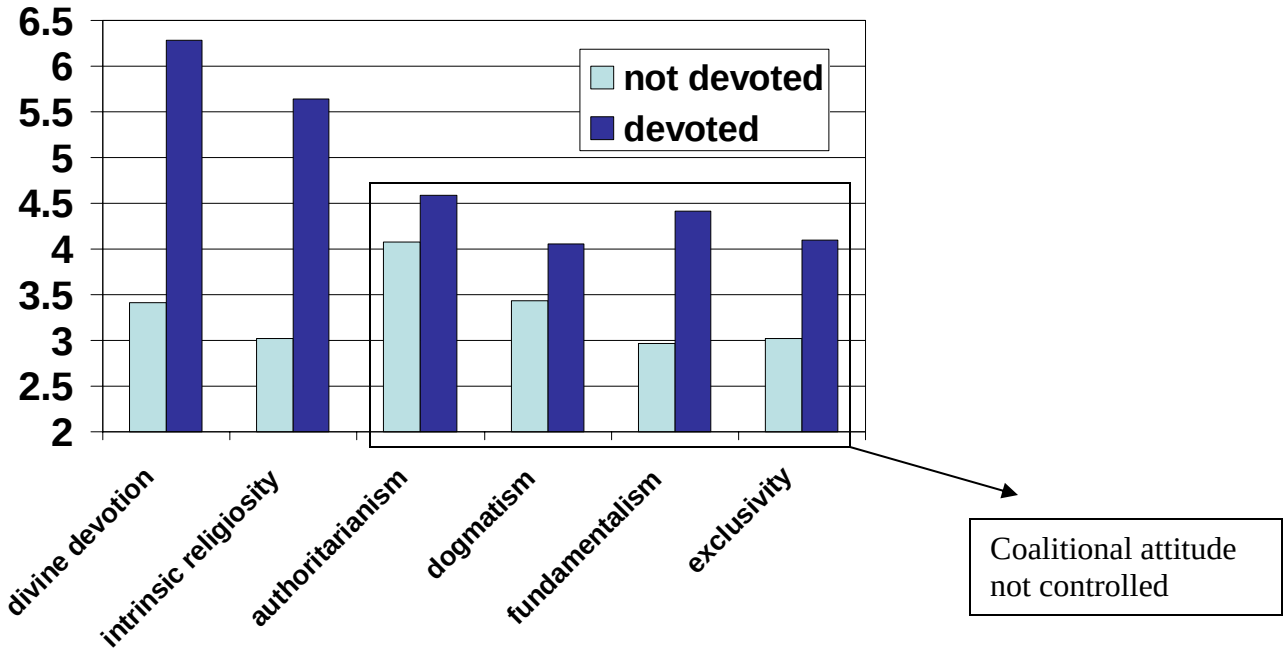
Figure 3. Means on religiosity variables for a Canadian sample (controlled median split: religious devotion minus coalitional attitude)

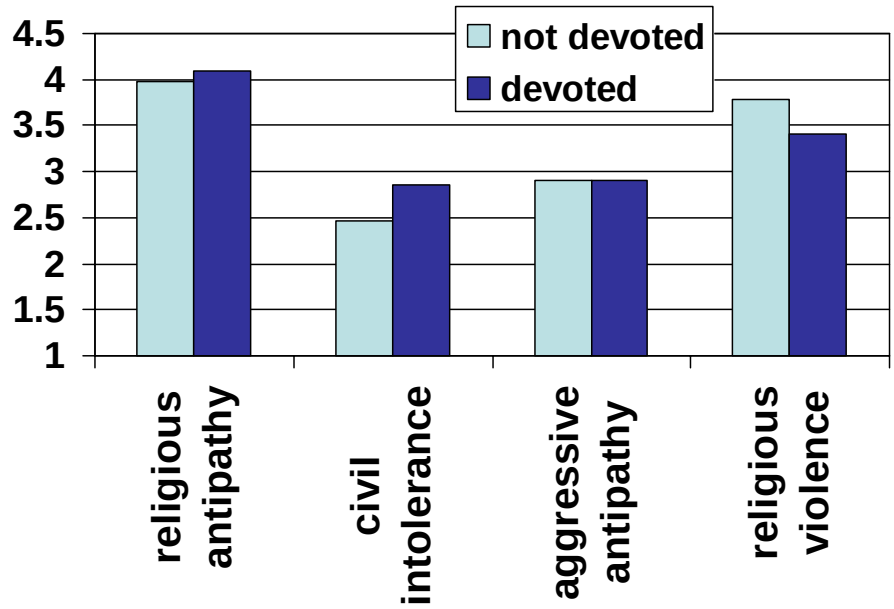
Figure 4. Means on intolerance variables for a Canadian sample (controlled median split: religious devotion minus coalitional attitude)

Figure 5. Proportion of participants endorsing the statement "I blame people of other religions for much of the trouble in this world" (Contrasting those who pray regularly vs. those who do not among those who neither attend services nor are exclusivist, those who attend only, those who are exclusivist only, and those for whom both are true)

Figure 6. Proportion of participants endorsing the statement "I blame people of other religions for much of the trouble in this world" (Contrasting those who are exclusivist vs. those who are not among those who neither attend services nor pray, those who attend only, those who pray only, and those who do both)

Figure 7. Proportion of participants endorsing the statement "I blame people of other religions for much of the trouble in this world" (Contrasting those who attend regularly vs. those who do not among those who neither pray nor are exclusivist, those who are exclusivist only, those who pray only, and those for whom both are true)


6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
not devoted
devoted
divine devotion
intrinsic religiosity
authoritarianism
dogmatism
fundamentalism
exclusivity
Coalitional attitude not controlled


4.5
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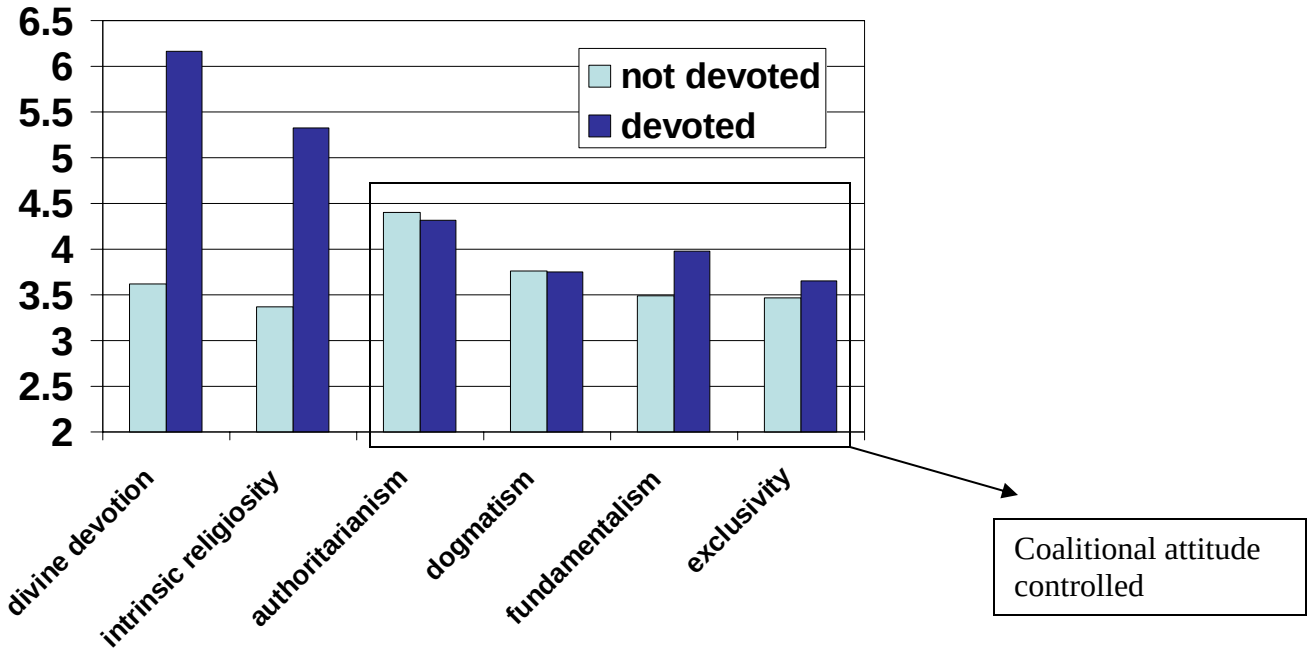
3.5
3
2.5
2
1.5
1
not devoted
devoted
religious antipathy
civil intolerance
aggressive antipathy
religious violence


6.5
6
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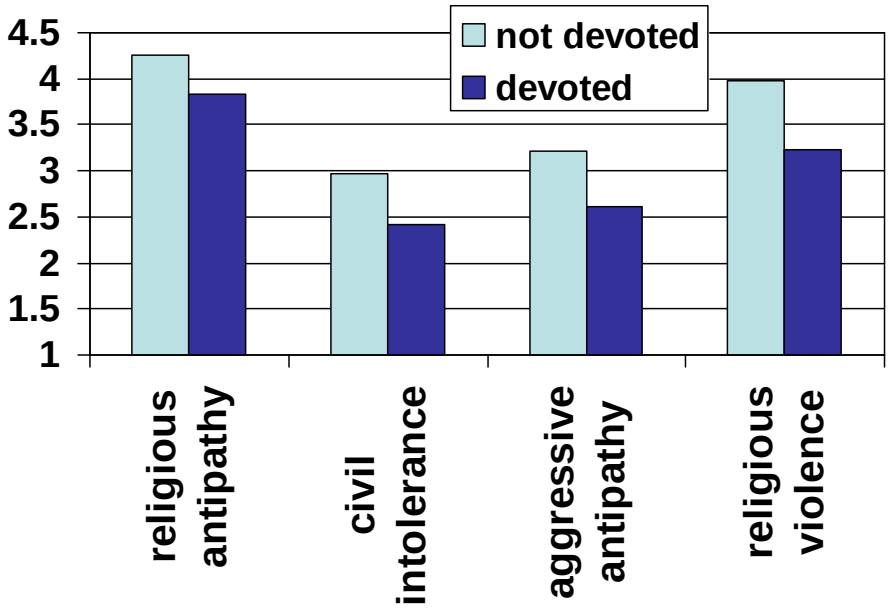
divine devotion
intrinsic religiosity
authoritarianism
dogmatism
fundamentalism
exclusivity
Coalitional attitude controlled


4.5
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not devoted
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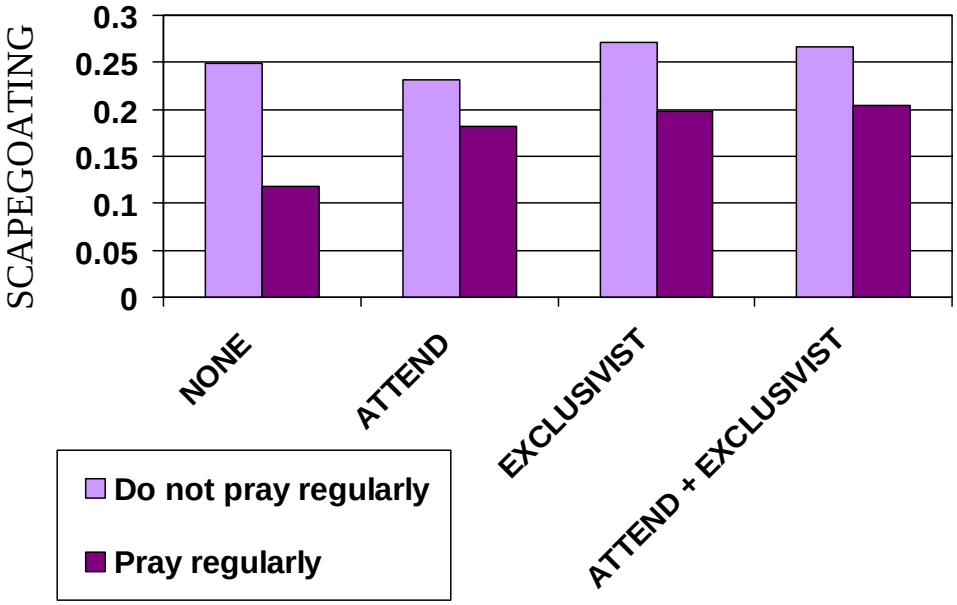
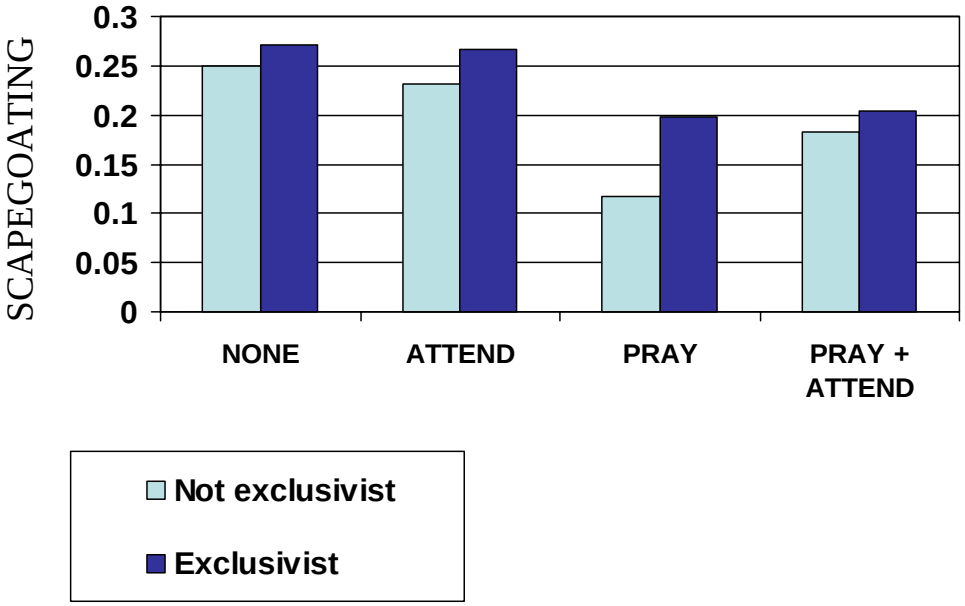
religious antipathy
civil intolerance
aggressive antipathy
religious violence


SCAPEGOATING
0.3
0.25
0.2
0.15
0.1
0.05
0
NONE
ATTEND
EXCLUSIVIST
ATTEND + EXCLUSIVIST
Do not pray regularly
Pray regularly


SCAPEGOATING
0.3
0.25
0.2
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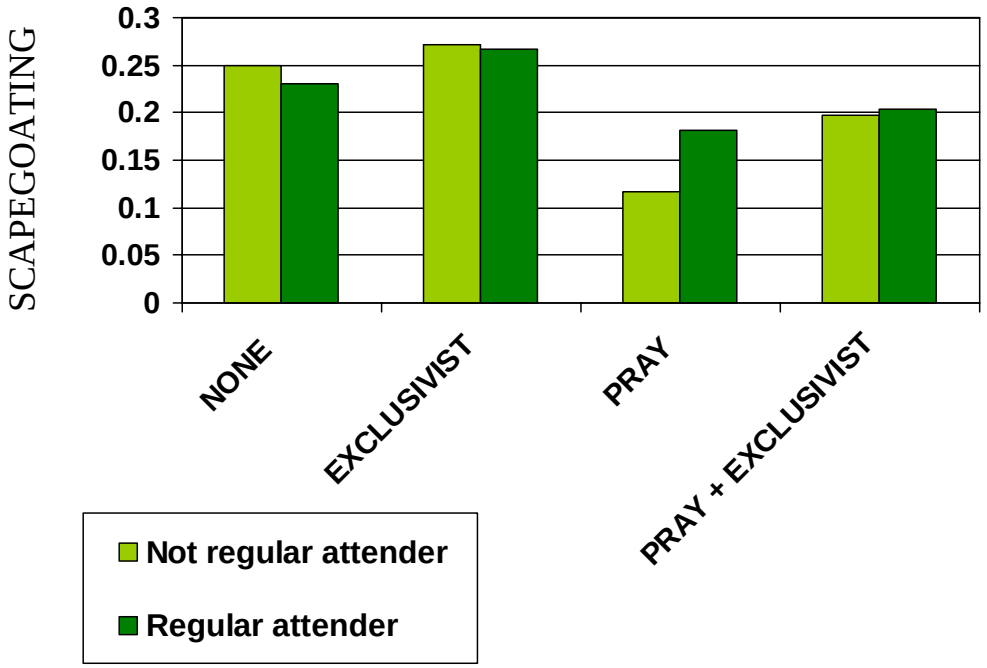
0.05
0
NONE
ATTEND
PRAY
PRAY + ATTEND
Not exclusivist
Exclusivist


SCAPEGOATING
0.3
0.25
0.2
0.15
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0
NONE
EXCLUSIVIST
PRAY
PRAY + EXCLUSIVIST
Not regular attender
Regular attender