

## Does Religion Impact on Environmentally Related Behaviour?

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In an often quoted lecture delivered at a meeting of the American Association for the Advancement of Science, the historian Lynn White (1967) argued that the Christian religion is a root cause of the ecological crisis facing humankind. According to White, our ecological problems are in large measure due to the application of science and technology, which have embraced what he terms 'the orthodox Christian arrogance towards nature.' He traces this attitude back to Genesis 1:28, where humans were told to 'fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the air and over every living thing.'

White's thesis has produced a wide range of responses (Barbour, 1973; Attfeld, 1983). Some have accepted his account, while others have queried it. For example, Passmore (1974) acknowledges that strongly embedded in Western culture there is a notion that humans are free to deal with nature as they please; but he contends that it is wrong to trace this attitude back to the Christian scriptures. According to his analysis, it was only as a result of the influence of Greek thought, rather than of the Christian scriptures, that Christian theology came to regard nature as little more than a system of resources to be exploited. Steffen (1992) argues that environmental degradation is the result of a complex set of social, cultural, economic and political factors, such as urbanization, technological development, population growth, democratization,

industrialization, increases in wealth, and patterns of ownership of natural resources. To regard the Christian religion as the primary cause of environmental problems and the main impediment to their solution is, in his view, a gross oversimplification.

Whatever may have occurred in the past, the environment has recently received increasing attention by some church organizations. For example, the World Council of Churches (WCC) has in recent years declared its concern for 'peace, justice and the integrity of creation.' At a plenary session of its 7th Assembly, held at Canberra in 1991, Chung Hyun-Kyung, a theologian from South Korea, received a standing ovation after an address in which she stated that human survival depends upon our putting all forms of life, not only human life, at the centre of creation. This, she said, is in contrast to traditional Christian creation theology and Western thinking, which put the human being, especially men, at the centre of the created world, with power to control and dominate creation (*The Age*, 9 February 1991). Nevertheless, her comments produced some controversy. For example, the conservative Catholic columnist, B. A. Santamaria, contended that 'The 'greening' of Christianity is transforming those who espouse it into pantheists. Simultaneously, another branch of the 'green' religion underlies militant environmentalism and inspires the New Age movement' (*Weekend Australian*, 16-17 February 1991).

Among environmentalists, there appear to be various orientations toward religion. Some, such as Birch and Cobb (1981) and Matthew Fox (1988), profess a very liberal form of Christianity. Others, such as Sylvan and Bennett (1988) and Odin (1991), espouse a belief system akin to Taoism or Buddhism. Others again, such as Lovelock (1988) and Goldsmith (1988), speak of our planet as a living being which they name Gaia, after the Greek goddess of the Earth. Lovelock (1988: 206) states that for him 'Gaia is a religious as well as a scientific concept.' Goldsmith, founding editor of *The Ecologist*, criticises the mainstream religions of today and contends (1988: 183) that 'We have no alternative but to recreate, along with a homeotelic society, a homeotelic religion.' Naess (1988) and Devall (1991), who are advocates of 'deep ecology', speak of their drawing from a variety of religious and cultural traditions. On the other hand, Young (1990: 131), who is also sympathetic to deep ecology, maintains that although it is logically compatible at some levels with the Gaia hypothesis and with the Creation spirituality of writers such as Matthew Fox, deep ecology is essentially atheistic.

Although there have been various studies in recent years of the extent to which individuals' religious beliefs or religious practices relate to their professed *attitudes* toward the environment (Hand and Van Liere, 1984; Shaiko, 1987; Eckberg and Blocker, 1996; Greeley, 1993; Kanagy and Willits, 1993; Woodrum and Hoban, 1994; Kanagy and Nelsen, 1995; Blombery, 1996), there has been relatively little empirical study of the relationship between individuals'

religious beliefs and their environmentally related *behaviour*.

Indeed, only two of the reasonably comprehensive list of articles cited in the previous sentence (Kanagy and Willits, 1993; Blombery, 1996) deal with the religious correlates of environmentally related behaviour as well as of environmentally related attitudes. Because attitudes do not always correlate strongly with behaviour, one should not assume that information about the former is an adequate substitute for information about the latter.

Kanagy and Willits (1993) used two measures of religiosity:

- (a) *religious affiliation*, scored 1 for Christian or Jew, 0 for no religious affiliation.
- (b) *frequency of attendance at worship*, scored using a scale ranging from 1 = never or practically never attend, to 6 = attend more than once a week.

To measure the extent to which respondents had engaged in political action and consumption behaviours protective of the environment, Kanagy and Willits used items devised by Maloney, Ward and Braucht (1975). With a statewide sample of Pennsylvania residents (N=2573), Kanagy and Willits found that there was no significant association between religious affiliation and environmentally protective behaviour. There was a weak bivariate correlation ( $r=.05$ ) between worship attendance and environmentally protective behaviour, but this association became insignificant when the researchers controlled statistically for gender, age, education and family income. When they also controlled for environmentally related attitudes, as measured by Dunlap and Van Liere's (1978) New Environmental Paradigm, attendance at worship services again

displayed a positive association with environmentally protective behaviour.

From further analysis, Kanagy and Willits concluded that attendance at worship has both a direct and an indirect effect on environmentally protective behaviour:

*To the extent that religiosity leads to lessened acceptance of the new environmental paradigm, it has a negative indirect effect on environmentally protective behaviors. However, this negative effect is, at least in some measure, countered by a net positive effect of religious involvement on such participation. (Kanagy and Willits, 1993:680)*

Whereas Kanagy and Willits' data were drawn from one state within the USA, Blombery's (1996) were drawn from a nation-wide sample (N=1378) in Australia. In the latter study, information was obtained on the extent to which respondents:

- (a) made a special effort to sort glass or metal or plastic or paper for recycling;
- (b) made a special effort to buy fruit and vegetables grown without pesticides or chemicals;
- (c) refused to eat meat, for moral or environmental reasons;
- (d) cut back on driving, for environmental reasons;
- (e) belonged to a group whose main aim is to preserve or protect the environment;
- (f) had, in the last five years, signed a petition about an environmental issue;
- (g) had, in the last five years, given money to an environmental group;
- (h) had, in the last five years, taken part in a protest or demonstration about an environmental issue.

From her analysis, Blombery concluded that religion, as measured by belief, denomination or church

attendance, makes little significant difference in people's environmentally related consumption patterns (items (a) to (d) above) but that greater religiosity tends to be associated with lower levels of political action in relation to the environment (items (e) to (h) above). However, her analysis did not introduce statistical controls for demographic variables such as age, gender, education or household income. Because religiosity is to some extent associated with each of these variables, one cannot estimate the effects of religiosity *per se* unless one controls statistically for these variables. *Inter alia*, this will be done in the present study.

## Data and methods

Data for this study are from the Australian component of the 1995-96 World Values Survey. Face-to-face interviews were conducted in November-December 1995 with a representative sample (N=2048) of the Australian population aged 14 years and above. This sample was drawn using 256 clusters of households randomly selected in proportion to the Australian population as a whole. Only one person was interviewed in each household.

The survey instrument was prepared by an international committee on which the present author was the Australian representative. In order to identify changes in social values, some of the questions were the same as in previous waves of the World Values Survey, conducted in over 20 countries (including Australia) in the early 1980s and in over 40 countries (but not Australia) in the 1990s. The questions about environmentally related behaviour were

not asked in those two previous waves but were included in a 1994 survey conducted in New South Wales for the Environment Protection Authority (EPA). However, the impact of religious beliefs and practices on environmentally related behaviour cannot be analysed from the EPA data, as no questions about religion were included in that survey.

In the 1995-96 World Values Survey, respondents were asked which on a list of five things they had done or not done in the last 12 months, out of concern for the environment. Table 1 presents the results for Australia. A score ranging from 0 to 5 was calculated for each person, based on the number of these things they said they had done.

Various measures of religiosity were also included in the World Values Survey. The most useful of these were as

follows:

(a) *Religious denomination.* The list included major denominations, as well as 'agnostic', 'atheist' and 'no religion'.

(b) *Membership of a church or religious organization.* Respondents scored 2 if they described themselves as active members, 1 if they were inactive members, and 0 if they were not members.

(c) *Attendance at religious services.* Attendance was scaled from 1 for 'never, practically never' through to 7 for 'more than once a week'.

(d) *Religious belief.* Respondents were asked which, if any, of the following they believed in: God, life after death, that people have a soul, that the Devil exists, hell, heaven, sin. As well as being used individually, these responses were aggregated into a belief scale ranging from 0 to 7.

**Table 1. Responses to the question 'Which, if any, of these things have you *done* or *not done* in the last twelve months, *out of concern for the environment?*' (N=2048)**

	Have done (%)	Have not (%)	Don't know (%)
A. Chose household products that you think are better for the environment	78.9	19.0	2.1
B. Decided for environmental reasons to reuse or recycle something rather than throw it away	90.7	8.8	0.5
C. Tried to reduce water consumption for environmental reasons	76.8	22.0	1.2
D. Attended a meeting or signed a letter or petition aimed at protecting the environment	30.7	67.6	1.7
E. Contributed to an environmental organization	29.4	69.0	1.6

(e) *Importance of God in one's life.*

Respondents were asked to use a scale from 1 to 10, where 1 means 'not at all important' and 10 means 'very important'.

(f) *Degree of confidence in the churches.* Respondents expressing 'a great deal' of confidence in the churches scored 4, 'quite a lot' 3, 'not very much' 2, and 'none at all' 1.

(g) *Attitude to the Bible.* Respondents were asked to indicate which of the following statements came closest to describing their feelings about the Bible:

1. The Bible is the actual word of God and should be taken literally word for word.
2. The Bible is the inspired word of God but not everything should be taken literally word for word.
3. The Bible is an ancient book of fables, legends, history and moral teachings recorded by man.

From a Christian perspective, these three statements represent the gradation from literal orthodoxy, through liberal orthodoxy, to a more secular view of the Bible.

As well as providing data on age, gender, education and household income, the World Values Survey contained other items which might potentially be useful in predicting or explaining environmentally protective behaviour. The following are included in the analysis which follows:

(a) *Membership of an environmental organization.* This was scored in the same way as membership of a church or religious organization.

(b) *Degree of confidence in the Green movement.* This was scored in the same way as degree of confidence in the churches.

(c) *Degree of interest in politics.* This was a four-point scale ranging from 1

(not at all interested) through to 4 (very interested).

(d) *Left/right self-placement.* In terms of their general political views, respondents were asked to place themselves on a scale with 1 meaning 'the left' and 10 meaning 'the right'.

(e) *Orientation towards mastery of nature.* Respondents were asked which of the following was closest to their views: 'Human beings should master nature' (scored 1) or 'Human beings should co-exist with nature' (scored 0).

## Results

To test whether religious denomination is significantly related to environmentally protective behaviour, a series of binary variables was created. If people identified with a particular denomination, they were coded 1 for that particular denomination, otherwise 0. This was done for each of the ten largest Christian denominations, for an 'other Christian' category, for the four largest non-Christian religions, for an 'other non-Christian religion' category, and for 'agnostic', 'atheist' and 'no religion' categories. It was found that only three of these binary variables have a significant correlation with environmentally protective behaviour: being a Catholic ( $r = -.05$ ), being an agnostic ( $r = .05$ ) or having no religion ( $r = .07$ ). However, when all Christian denominations are combined into a single category, there is a negative correlation ( $r = -.07$ ) with environmentally protective behaviour. The corresponding correlation for the combined category of agnostics, atheists and those professing no religion is .08. Although none of these correlations is very strong, the negative correlations

indicate that such persons who profess to be Christians are less likely than others to engage in behaviour protective of the environment. By contrast, those who are agnostics or who profess no religion are more likely than others to engage in such behaviour.

Of the religious variables listed earlier, the only others found to have significant correlations with self-reported environmentally protective behaviour are: frequency of attendance at religious services ( $r=.05$ ) and attitude to the Bible ( $r=.11$ ). Given the scoring system outlined above, the positive correlation in the case of attitude toward the Bible means that Biblical literalists are less likely to engage in environmentally protective behaviour than are persons with a more liberal or a secular interpretation of the Bible. On the other hand, persons who frequently attend religious services are more likely to engage in environmentally protective behaviour than are persons who seldom or never attend such services. In the latter respect, the results from this Australian study are similar to those reported by Kanagy and Willits (1993) for a sample drawn from Pennsylvania.

However, the correlations reported earlier in this section are generally weaker than the correlations between self-reported environmentally protective behaviour and membership of an environmental organization ( $r=.34$ ), degree of confidence in the Green movement ( $r=.31$ ), level of education completed ( $r=.19$ ), household income ( $r=.17$ ), degree of interest in politics

( $r=.16$ ), female gender ( $r=.15$ ), orientation toward mastery of nature ( $r=-.12$ ), and left/right self-placement ( $r=-.11$ ).

Some of these variables are themselves significantly correlated with one another. Some are also significantly correlated with one or more of the religious variables discussed earlier. Consequently, multivariate analysis (multiple regression) was used to assess the extent to which a particular variable makes a unique contribution to the explanation or prediction of environmentally protective behaviour. The statistical parameter used in reporting the results is the beta weight. The beta weight for each independent variable is a measure of the relative importance of that variable in contributing to the explanation or prediction of the dependent variable when one controls for the effects of other independent variables. A beta weight can range in value from  $-1$  to  $1$ . Like the correlation coefficient, the beta weight is negative when high values of the dependent variable are associated with low values of the independent variable and vice versa.

**Table 2. Standard multiple regression for variables significantly associated with environmentally protective behaviour.**

<u>Variable</u>	<u>Beta Weight</u>
Membership of an environmental organization	.27
Degree of confidence in the Green movement	.23
Female gender	.13
Degree of interest in politics	.09
Left/right self-placement	-.08
Orientation towards mastery over nature	-.08
Household income	.07
Education	.05

Squared multiple correlation ( $R^2$ ) = .25

Taking environmentally protective behaviour as the dependent variable, the independent variables which have significant beta weights are set out in descending order of importance in Table 2. The squared multiple correlation of .25 indicates that 25 per cent of the variation in environment-related behaviour can be explained or predicted using the eight variables listed in that Table. Each of these variables is much more significant in this respect than any of the religious variables discussed earlier. Indeed, adding those religious variables to the multiple regression makes virtually no difference to the squared multiple correlation. In other words, when one controls for the eight variables listed in Table 2, religious variables have no significant impact, either positively or negatively, on the likelihood that one will engage in environmentally protective behaviour.

### Concluding Comment

There is something of a paradox in the above results. Although persons who profess to be Christian are slightly less likely than others to engage in environmentally protective behaviour, persons who frequently attend religious services are slightly more likely to engage in environmentally protective behaviour than are persons who seldom or never attend such services. However, variables other than religion seem to be much more important than religious variables in shaping environmentally related behaviour.

### Note

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