

The impact of Environmental Ethics on Christian Ethics

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1 Introduction

Environmental ethics is a subject which has gained a great deal of attention in recent decades, as scientific studies and experience have demonstrated the power man has to impact the world around him. The issue of climate change has received particular attention over recent years. Coupled with an awareness of our dependence on the natural world for air, water, and food, this has led to a change in perspective when considering man's position with respect to nature.

This change in perspective has been particularly felt in Christian circles, not least because a number of commentators have accused Christianity of being part of the problem. The historian Lynn White (1967), himself a Christian, drew a link between the rise of modern science, environmental crisis and western Christianity, famously stating that western Christianity was "the most anthropocentric religion the world has seen".

The church has responded to this criticism, although some would characterize that response as slow. The World Council of Churches and a number of individual denominations have published position papers setting out the need for a more considered approach to our interaction with the natural world (see for example World Council of Churches, 1997).

The aim of this study is to assess how far this change in perspective has penetrated into the thinking of the laity and local clergy. In particular, have the position papers influenced teaching in individual churches? And has that teaching been reflected in the views of the congregation? These questions will be addressed through a survey conducted through several media.

This study does not address the scientific questions surrounding climate change. However, it is noted that both the Intergovernmental Panel on Climate Change (IPCC, 2001), and the scientific academies of the 11 leading world economies (Joint Scientific Academies, 2005), consider that climate change caused by human activities is a proven fact. Climate change becomes an ethical issue rather than simply a scientific issue because lifestyle choices made now can impact the wellbeing of others in the coming years, and poorer people in particular are more vulnerable (Harrabin, 2006).

2 Background

The primary criticism which has been leveled against Christianity is that it has been instrumental in forming an anthropocentric (man-centred), rather than bio-centric or eco-centric attitude (i.e. one centred on living creatures or ecosystems respectively). White

identifies this attitude as arising from Genesis 1 and 2, where man is charged with naming the animals and given dominion over them.

The justice of this charge has been questioned by a number of scholars, however it is not clear to a non-specialist how many of these criticisms arises from a wishful reinterpretation of past attitudes. Nevertheless, it is possible to trace the development on Christian attitudes to the environment through various historical sources.

2.1 Historical attitudes within Christianity

A number of scholars have examined Old Testament attitudes to the environment from a Jewish perspective. Eric Katz interprets the Jewish tradition to create an attitude of stewardship (Smith, 1997, p73), a mildly anthropocentric view in which man has a special responsibility to tend the world. This view is also presented by Passmore (1995, p129ff), who draws attention to Job 38:26, where God claims to water “a land where no man lives”: God’s interest is not solely devoted to man. This view certainly parallels the attitude of Israel to its native land, which experience had shown to be granted as a conditional covenant gift, rather than property which they could abuse. The “sabbath year” (Lev 25:2-4) is also a model for environmental care (Solomon, 1992, p19).

It seems likely that attitudes in the early church paralleled Jewish thought, and some gospel passages reflect this (see for example Luke 12:22-31). However, by the time of Origen and Augustine, this attitude is beginning to change, possibly under the influence of Stoicism (Passmore, 1995, p131). Augustine in his commentary on Genesis does not highlight 1:28 as granting man dominion over nature (Gill, 1985, p), although he does conclude the man has a unique position from being created “in the image of God”, referring to rationality. He views nature as fundamentally good, including things which do not serve man, such as thistles. However he argues from the gospels that animals are man’s to use, since Jesus used innocent swine to dispose of evil spirits (Passmore, 1995, p132).

Aquinas is more clearly anthropocentric. In his “Summa Contra Gentiles” (Gill, 1985, p380-389, he argues that the duty of man is to God, but animals have no such duty, and therefore their only role can be to serve man in his *telos*. There is therefore no moral imperative relating to the treatment of animals, except if cruelty to animals encourages cruelty to men. Kant would later adopt the same position, and Descartes would argue that that animals do not even feel pain (Passmore, 1995, p133).

Francis of Assisi recognised that animals have intrinsic value, however man retains greater value (Linzy, 1986), but these views were exceptional at the time.

Luther re-examined the biblical arguments, noting that “dominion” was granted to Adam and Eve before the fall, and that fallen man might not represent a trustworthy steward of the natural world (Gill, 1985, p392-401). However he holds that nature too is fallen. This attitude, in contrast to Augustine’s, might give man reason to change nature as a redemptive act. In fact, Augustine’s view that the creation is the proper study of mankind is more often used as a justification for science than Luther’s (Passmore, 1995, p132).

2.2 Modern Christian perspectives

In general, modern Christian viewpoints may be divided into three into three categories:

- The “dominion thesis”, continuing the view of Aquinas, that man should exercise dominion over the natural world and use it in whatever way suits his short- or long-term interests. In contrast to Aquinas, this viewpoint now tends to be scripturally inspired (e.g. Genesis 1) and most common in evangelical circles (for example Stott, 1984, p112). Depending on their view of the scientific data concerning climate change, believers in this viewpoint may advocate a range of positions, from a complete disregard for environmental issues, to a call for careful preservation of natural resources for the benefit of future generations or the poor. Believers in an imminent rapture are also less likely to be concerned about the long term preservation of the environment. (This will be referred to as the “dominion position” throughout the rest of this paper).
- “Stewardship” is a well-used term in modern environmental theology. Man still has a special position, but by divine appointment or by virtue of his role and abilities he has a greater responsibility to care for the environment: In adopting some of God’s power over nature, he also acquires God’s responsibility in caring for it. (This will be referred to as the “stewardship position”).
- Finally, some people view mankind as inseparable from nature, not possessed of any fundamentally distinctive position. This view is perhaps less widespread in Christian than secular thought, since any argument which places man in the same class of beings as animals is treated with suspicion in some Christian circles. (This will be referred to as the “naturalist position”).

Two additional theological viewpoints on the environment have emerged from broader theological schools. Liberation ecotheology and feminist theology both apply the perspectives of the corresponding theological school to environmental issues. Liberation theology recognises the greater dependence of poor and oppressed peoples on their land (Smith, 1997, p58), and sometimes extends the ideas of liberating the oppressed peoples to cover “oppressed” species and environments as well (Smith, 1997, p64). Feminist theology rejects the use of man’s power over the environment for domination, advocating instead a non-adversarial approach (Smith, 1997, p24).

2.3 Teachings of the churches.

Environmental issues, and climate change in particular, have begun to appear in the teachings of various churches over the past thirty years. For example, the World Council of Churches (1997) made a statement about the duties of mankind with respect to the environment at the meeting for the ratification of the Kyoto treaty.

At one extreme, the Roman Catholic church takes a fairly progressive view on the environment. The catechism, updated in 1993, specifies that mankind, although distinct from the animals, has “solidarity” with them by virtue of sharing the same creator (Vatican, 1993, paragraphs 337-344). Furthermore an appeal to virtue is made in opposition to unnecessary animal cruelty (paragraphs 2418, 2457). The US catholic bishops support calls from the scientific community for action on climate change (United States Conference of Catholic Bishops, 2001).

At the other extreme, a recent call to action by some US evangelical leaders was opposed by some well know evangelists and a spokesman for the Southern Baptist Convention

(Hagerty, 2006). The web site of the Baptist World Alliance (2006) does not have a position document on the environment. The Baptist Union of Great Britain (2006) does have such a document, but the position is one of dominion tempered by stewardship.

A range of intermediate positions may be found. For example, the Church of England document “Sharing God’s planet” argues for responsible stewardship, but also contains two mentions of “dominion”, one is guarded and the other positive (Archbishop’s Council, 2005).

A crude explanation of the above positions might be made as follows. The natural law tradition in the Catholic church makes it broadly sympathetic to scientific viewpoints, where those viewpoints do not impact its core concern for the traditional family. The fundamentalist wing of the evangelical movement is much more wary of science, especially evolutionary biology, and supports this position by emphasising Genesis 1-2 over the rest of scripture.

2.4 Secular perspectives

Environmental ethics in secular thought represents an even greater diversity of viewpoints than in Christian thinking. Utilitarian arguments are made on the basis of an informed anthropocentric position (Elliot, 1995, p2-8), in which man’s responsibility to nature arises from self-interest, given his dependence on nature. Deontological arguments are also made, where people have a duty to provide a healthy environment to one another. This notion is often extended to include a duty to future generations, although duties to non-existent beings present philosophical difficulties.

Duty arguments are also extended to convey rights on animals (Baird Callicott, 1985, p29-59), plants, species (Rolston, 1995, p60-75), and even landscapes (Elliot, 1995, p76-88). Deep ecology, emphasising the importance of interconnected biological system, grants rights to all elements of an ecosystem (Smith, 1997, p6-18). This movement builds on the scientific work concerning the Gaia hypothesis or “ecosphere”. The “Land ethic” of Aldo Leopold (Smith, 1997, p47-56) develops an extend range of duties towards natural environments, which have worth in themselves.

Secular ecofeminism highlights parallels with feminist issues such as oppression, the abuse of power, and the emphasis of an adversarial relationship between mankind and nature (Plumwood, 1995, p155-164). Animal liberationists are distinct from other environmental groups in that they are primarily concerned with the welfare of animals living today, rather than the protection of the environment for the future.

2.5 Common causes and differences

The main attitudes to the environment in Christian circles have parallels in secular thought. People who distrust the conclusions of environmental studies or have vested interests in the status quo give less weight to environmental arguments. By contrast, some scientists find common cause with pagans and animists in placing man no higher than his environment. Christian stewardship may provide a different motivation for environmental concern, but it has substantial common ground with deontological environmental ethics.

Ecofeminism, apart from some occasional digressions toward a fertility cult, has much in common with its theological cousin. There is also some common ground between ecofeminism and liberation ecotheology in terms of the rejection of environmental oppression.

Almost all stands of environmental thought recognize the importance of limiting the human population as a means of controlling environmental impact, although this sensitive view is seldom publicised. This aspect of environmentalism leads to some tension with Catholic teaching on family planning.

3 Survey of attitudes to environmental ethics

3.1 Methodology

The impact of environmental thinking on Christian ethics has been assessed by two means: Firstly, by conducting face-to-face or email interviews with Christians from different backgrounds. Secondly, by conducting a web survey among visitors to three websites.

In both cases the question followed a similar overall pattern. Firstly, the interviewees were asked to identify their faith affiliation and a few other details. Next, they were asked to classify a range of environmental and non-environmental ethical issues by importance. They were then asked to explain how they chose the most important and least important issues. In order to avoid biasing the result, the aim of the survey was not stated at this point.

Next, the interviews were asked to select which of the three positions in section 2.2 (dominion, stewardship, or naturalist) best reflect the proper relationship between man and his environment. Finally, two questions were asked to identify the attitude of the interviewee concerning the evidence for climate change.

For the interviews, explicitly Christian language was used in the questions, and some open questions were asked. In addition, the interviewees were asked what teaching they had received on environmental issues within the context of their church congregation, and what they knew about the official position of their denomination. The interviews are summarised in appendix A.

The web survey was accessible to people of any religious viewpoint, in order to allow a comparison between Christian and non-Christian attitudes. The language was therefore secularized. All the questions were of a multiple-choice type. The unprocessed web survey result are given in appendix B, and the web pages themselves in appendix C. The web survey was publicised by placing links in three places: first on a scientific site, secondly on a puzzle game site, and thirdly in a signature used on a web forum catering to a largely Christian audience.

There are a number of problems with the methodology of the web survey, including the facts that the respondents were self-selecting, all were internet users, and the sample set probably contained an unusually large proportion of scientists. Basic precautions were taken to prevent multiple votes from a single machine, however a determined user could submit multiple votes by using several different machines or dial-up sessions.

3.2 Results

The results of the interviews with Christians from different backgrounds showed a fairly uniform arrangement of issues, with poverty and human rights featuring highly, and animal welfare ranked as least important. The interviewees typically highlighted the value of

human life above other concerns. The most common bases for these arguments were arguments from utilitarianism, virtue, and natural and divine law. Deontological arguments only really appeared as duties to God.

Of particular interest was the response to the question on teaching in church. Despite the position statements of the various denominations on environmental issues, there is comparatively little church based teaching. One of few exceptions was a Catholic interviewee who identified an occasion when an encyclical was read instead of a sermon; this appears to be an effective mechanism for distributing responses to current issues to a grass roots level. It is hard to imagine this occurring in an Anglican church with its great diversity of theological positions, and as a result it is up to individual incumbents to read official statements current issues. The other occurrences of environmental issues being discussed in church were at Quaker meetings and an “emergent church” type discussion service: In both cases environmental issues can be raised by the congregation rather than from the church hierarchy.

The web questionnaire lead to 129 responses from respondents in a number of countries. The quantity of data is too limited to provide statistically significant results in most cases, but may suggest questions for further study. However the survey produced rather more data than could be fully investigated by hand. With more responses, multivariate analysis could be used to identify any correlations in the data, however for this report some obvious relationships are examined.

As an initial comparison, the “importance scores” given by Christians and non-Christians were compared. For each respondent, the scores were adjusted to bring the mean score to zero, and the sign of the result was reversed, so that a positive score means the issue was rated as more important. The mean and standard deviation were calculated over all Christian and non-Christian respondents.

The ratings given by Christians and non-Christians are shown in figure 1. (Note: error bars have not been plotted for these figures because the rating system was unnormalisable: Some respondents entered “very important” for all issues. The scale should have been labeled “more important” to “less important” rather than “very important” to “not important”, or better, the user should have sorted the issues by importance).

Both groups rated pollution as more slightly important than climate change, and both issues were much more important than animal welfare. However Christians give less weight to the three environmental issues and more weight to the human issues when compared with non-Christians. Among the other issues, Christians rate war and terror and human sexuality as more important relative to non-Christians. Surprisingly, non-Christians rate wealth inequality as more important relative to Christians.

While not addressing the purpose of this paper directly, it is also interesting to compare attitudes with age. A similar graph chart is provided comparing the responses of under-35s and over-35s in figure 2. Note that young people consider climate change to be more important than older people, who rate pollution as a bigger issue. Since climate change has come to prominence comparatively recently, this suggests that either younger people are meeting the issue in education or possibly that they are quicker in adopting the issues of the day. Young people are more concerned about animal welfare and human sexuality, whereas older people see war and terror as more important.

The questions on ethical bases for the rating of the most important issue did not yield and great distinction between Christians and non-Christians, with about 60% of each

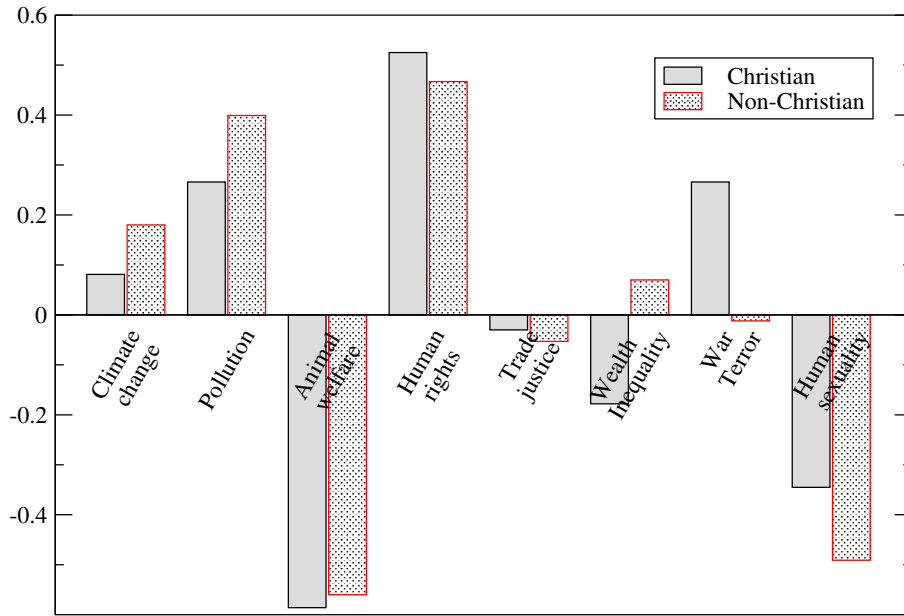


Figure 1: Mean ratings of the different issues divided according to Christian/non-Christian.

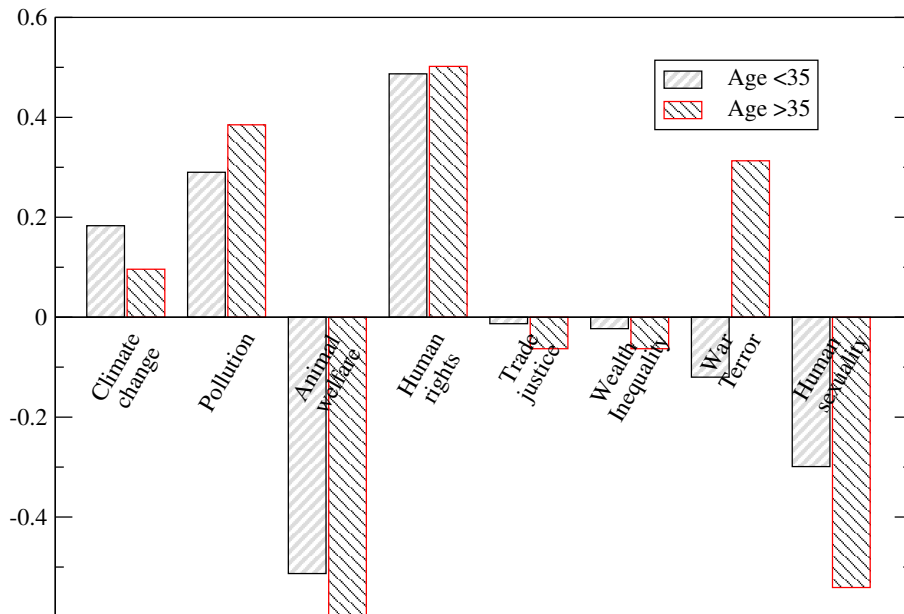


Figure 2: Mean ratings of the different issues divided according to age.

group selecting the utilitarian response of impact on human welfare.

Probably the most interesting question for the purpose of this study was the one on the proper relationship between man and nature, with the options from section 2.2 being characterised as dominion, stewardship, or naturalistic. Only 4 respondents selected the dominion option, one identified as protestant evangelical, one as Catholic, one as Jewish, and one as having no religious affiliation.

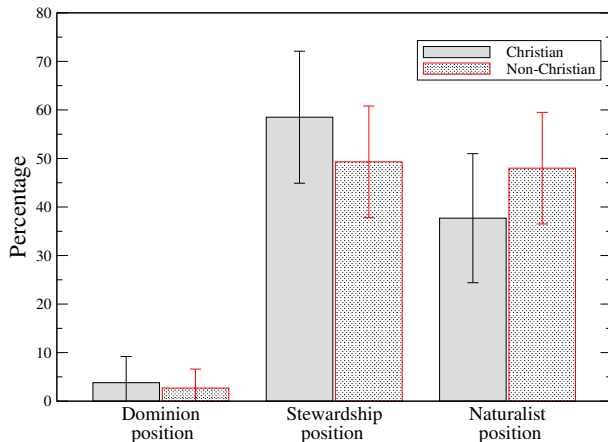


Figure 3: The proper relationship between man and nature, divided according to Christian/non-Christian.

Of the remaining respondents there appears to be a connection between religious belief and view on the proper relationship between man and nature, shown in figure 3. Christians are more likely to adopt the “stewardship” position (although the question was worded to avoid Christian jargon), and non-Christians the naturalist position, as might be expected. The error bars represent 95% confidence intervals, and so the results should be treated with caution.

A more surprising result is obtained by comparing the Protestant and Catholic responses (figure 4). The statistics would appear to suggest that Protestants may be more likely to adopt the stewardship position, and Catholics the naturalist position. It is tempting to try and explain this in terms of the natural law tradition in Catholic teaching, however a simpler explanation may be that Catholic opinion is not distinct from society as a whole on this issue. Note that although the sample size is very small, the preference of protestants for the stewardship position is quite dramatic, and approaches statistical significance when compared with the position of non-Christians in the previous figure.

A possible confounding effect in this analysis is the location of the respondent. It was expected that there would be a significant difference in attitude to both the question on the relationship between man and nature, and the question on the state of climate science, between US and non-US respondents. This expectation came from a difference in the reporting of climate change; as an illustration Google searches (Google, 2006) reveal that the BBC news web site has 15 stories mentioning climate change for every 10 stories mentioning inflation, compared to 2 stories mentioning climate change for every 10 about inflation for the CNN web site. Other search terms and news portals give similar

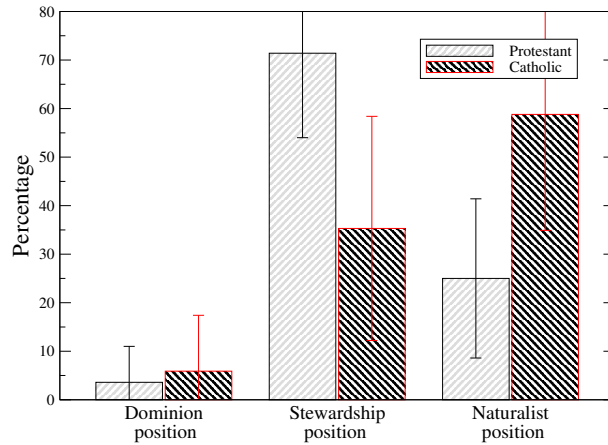


Figure 4: The proper relationship between man and nature, divided according to Protestant/Catholic.

results. Some effect was observed but did not confound the previous results, since a similar proportion of US and non-US respondents identified themselves as Christians.

Non-Christians rate environmental issues as relatively more important than human issues than Christians, however Christians highlight a duty of stewardship of the environment, whereas non-Christians are more likely to adopt the naturalist position. The combination of the naturalist position with a concern for the environment requires some motive for that concern, a question which was not examined in the survey. Presumably those motives will vary from pragmatic self-interest; to duties towards future generations, the poor, animals, or the natural world itself.

4 Conclusions

The results of the survey conducted here support White’s hypothesis that Christians are more anthropocentric than non-Christians. Christians tend to rate human issues as more important than environmental issues when compared with non-Christians. However, Christians today do not commonly adopt the dominion position on man’s relationship to nature. They are more likely to consider man to have a special position than non-Christians, however that special position confers a corresponding duty of stewardship. Non-Christians are more likely to consider man to be a part of and interdependent with nature.

Both Christians and non-Christians may take an active interest in environmental issues, but the results presented here suggest that their motivations are different. Christians are more likely to be motivated by a duty of stewardship under God over the environment, whereas non-Christians presumably approach environmental issues from a utilitarian or deontological background. Therefore while White’s hypothesis concerning anthropocentrism is justified, and the dominion position may have led to irresponsible attitudes in the past, it does not necessarily mean that Christians today are less concerned about the environment than non-Christians.

Most denominations have adopted a position on environmental issues, however this seems to be slow in filtering down to congregational levels, apart from in Quaker and some Catholic circles. Since climate change issues are more likely to be embraced by younger people, the issue may not become widespread at congregational level until those young people become ministers in the hierarchical churches.

5 References

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Appendix A: Interview data

- Interviewee 1 is a Catholic woman. She ranked the ethical issues in the order: Wealth inequality and trade justice; human rights, pollution, climate change, war and terror, human sexuality, animal welfare.

Her concern about poverty was supported by arguments from divine and natural law (the sanctity and equality of human life), utilitarianism (the suffering caused directly and the resulting cycles of violence) and virtue ethics (mistreating others harms us).

Animal welfare was less important for reasons again mainly springing from natural law - a decreased capacity for thought leading to decreased mental anguish. She went on to question the human-animal boundary.

The interviewee also expressed a general inclination to rank importance based on empathizing with suffering in others.

On the relationship between man and nature, the interviewee selected the stewardship option, arguing from Genesis and from equality in a sparse resource environment.

Environmental issues were generally only mentioned in church during prayers, however encyclical letters are read out on occasion. The interviewee identifies Pope John Paul II's writings on water use and some other issues.

- Interviewee 2 is a Catholic woman. She ranked the ethical issues in the order: Human rights, war and terror, human sexuality (abortion), wealth inequality, trade justice, climate change, pollution and animal welfare.

Human rights were most important and animal welfare was less important on the grounds that humans have souls and animals may not have souls. An appeal to divine law was made for the issues of abortion and euthanasia.

On the relationship between man and nature, the interviewee selected the naturalist option, although also citing a duty of care. There was little or no reference to environmental issues in church.

- Interviewee 3 is a Quaker woman, who actively attends Quaker conferences in addition to a local meeting. She ranked the ethical issues in the order: Trade justice and wealth inequality; climate change and pollution; human rights and human sexuality; war and terror and animal welfare.

Wealth-related issues placed first because they contribute to many of the other issues, especially terrorism and unregulated industrialisation, and also because survival trumps ethical issues.

Animal welfare is less important because humans have greater worth, and also because it is also affected by poverty and attitudes towards other people (an appeal to virtue).

On the relationship between man and nature, the interviewee selected a combination of the stewardship and naturalist options, based on an appeals to duty and reasoned self-interest.

Environmental issues were raised both in regular meetings by members of the congregation, and in occasional special discussion meetings. The Quaker movement takes a position on environmental issues in a number of ways, notably through “Advices and Queries” as well as other Quaker writings.

- Interviewee 4 is a protestant man. He ranked the ethical issues in the order: Human rights, trade justice and wealth inequality; war and terror, climate change and pollution, human sexuality and animal welfare.

Human rights were placed first because they are a shared value across most or all ethical positions. Issues of human sexuality is determined by taboos, which differ. Animal welfare was placed last because humans are of greater worth.

On the relationship between man and nature, the interviewee leaned towards the dominion position with elements of stewardship. The reasoning behind this was that the world derives its value from being of value to humans (c.f. Aquinas). The phrase “with wisdom” from the statement of the dominion position given here was highlighted.

Environmental issues were rarely mentioned in church. No official position statements were identified.

- Interviewee 5 is an protestant woman, who attends “emergent”-style discussion services under the umbrella of an evangelical Anglican church. She ranked the ethical issues in the order: Wealth inequality, trade justice, war and terror, pollution, human rights, climate change, human sexuality, and animal welfare.

Wealth inequality and trade justice were placed first for utilitarian reasons: they are contributor factors to many of the others issue and fixing those would fix many other problems.

Animal welfare was ranked least important because humans have a greater intrinsic worth than animals, although the interviewee expressed discomfort with the idea.

On the relationship between man and nature, the interviewee selected the stewardship option, arguing from scripture; rejecting the dominion position on grounds of selfishness and the naturalist position on the grounds that it absolves us of our special responsibilities.

Environmental issues had been mentioned in church, in the context of the sermon on the mount (possibly the beatitudes or Matthew 6:28-34). A sermon on environmental issues had been preached following the 2005 Church of England report.

- Interviewee 6 is a protestant woman, who attends an Episcopal church in the USA. She ranked the ethical issues in the order: Human rights, war and terror, wealth inequality and trade justice; human sexuality, animal welfare, climate change and pollution.

Human rights are important by appeal to divine law (Love one another as you love yourselves), and virtue ethics: “I believe that our ability to work towards these goals is what it means to be made in the likeness of God”.

Climate change, pollution and animal rights were all supported as important by appeal to divine law in the form of man’s duty of stewardship as expressed in the

Book of Common Prayer. Climate change was ranked lower because of the longer timescale of the effects, but could become much more important in future.

Other contributions were received by e-mail from respondents to the web survey. One contributor noted that some of the issues have impacts beyond ethics. The "importance" of an issue may be influenced by this. For example, climate change might be a survival issue, which might trump ethical considerations. Another Christian contributor discussed their rankings, appealing to scripture and particularly Genesis for a source of ethical arguments on all the issues.

Appendix B: Web survey data

Male/Female?	Age?	Where do you live?	Occupation?	Religion?	Denomination?	Rate Trade Justice:	Rate Pollution:	Rate War/Terror:	Rate Sexuality:	Rate Animal Welfare:	Rate Climate Change:	Rate Human Rights:	Rate Wealth Inequ.:	Most important?	Why?	Least important?	Why?	Proper relationship?	Climate science now?	Future evidence?
m	40	uk	sc	c	po	2	4	2	4	5	1	3	2	C	w	A	g	3	1	1
m	50	us	of	n	-	1	1	1	2	-	2	1	1	W	i	C	w	3	1	3
-	50	us	un	n	po	3	4	5	2	2	4	5	5	I	w	A	w	2	1	1
m	60	us	ed	c	pt	3	2	2	3	3	3	1	2	H	w	T	i	3	3	1
x	60	uk	hm	n	-	2	2	1	3	3	3	1	2	H	o	C	n	3	3	1
f	50	au	hm	c	-	1	1	1	3	1	1	1	2	C	w	S	n	3	1	2
m	40	us	co	n	-	2	1	3	3	4	1	1	3	C	w	A	w	3	1	2
m	20	eu	st	c	pe	2	1	3	2	2	2	1	1	H	g	A	i	2	3	1
m	30	eu	of	n	-	1	2	5	2	3	1	2	2	C	w	W	w	2	1	4
m	40	us	x	n	-	4	1	1	1	3	3	2	4	P	w	I	i	3	2	1
f	40	uk	hm	c	pe	2	1	2	2	3	1	2	1	I	w	A	w	2	3	1
m	50	uk	co	n	-	3	2	3	1	4	3	1	2	H	i	S	w	2	3	1
m	40	eu	x	c	pe	2	2	2	3	3	2	2	3	x	-	x	-	2	2	-
m	20	eu	st	n	-	2	2	3	1	3	2	3	1	W	o	A	w	2	1	3
f	20	eu	un	n	-	2	1	2	3	2	1	1	1	I	o	S	o	2	2	1
m	30	us	of	j	-	2	1	2	3	2	1	1	3	C	w	S	o	3	1	1
m	50	au	sc	n	-	2	1	1	1	1	1	1	2	C	w	T	o	3	1	2
m	30	us	ed	c	ca	2	2	1	2	4	1	3	3	C	w	A	i	3	2	3
m	30	eu	st	n	-	1	1	1	1	3	2	1	2	H	w	A	w	2	1	1
m	50	eu	of	c	ca	2	2	1	1	2	2	1	2	W	o	C	o	3	1	2
m	20	eu	st	c	ca	3	3	1	2	3	2	1	4	W	o	I	n	3	2	2
f	20	eu	st	c	pe	1	1	1	1	1	1	1	1	W	-	A	-	3	1	2
m	30	eu	sc	n	-	4	2	2	1	1	1	2	3	C	o	I	i	3	1	1
f	30	eu	st	n	-	1	1	1	2	2	1	2	1	W	w	S	o	2	1	2
m	50	us	ed	o	-	2	1	2	3	4	1	2	2	C	o	S	o	2	1	4
f	30	us	of	n	-	3	2	2	2	3	3	2	3	P	w	A	i	2	2	3
m	40	us	ma	n	-	3	1	2	4	4	1	1	2	C	w	S	i	3	2	3
m	50	sa	ed	n	-	2	1	1	2	2	2	1	1	I	i	C	-	3	2	1
m	20	us	st	n	-	4	3	4	3	5	3	1	2	H	w	A	o	3	1	1
m	30	eu	ma	c	ca	3	2	2	2	3	2	1	2	H	w	C	w	3	2	1
-	60	uk	hm	c	ca	1	1	1	1	1	1	1	1	A	w	T	g	3	2	1
m	40	eu	sc	n	-	1	1	1	1	1	1	1	1	C	w	x	-	3	1	4
m	30	eu	sc	n	-	2	1	3	2	3	2	2	2	P	w	A	w	3	2	1

Male/female: m/f. Age: rounded to nearest 10 years.

Where do you live: us=USA, uk=UK, eu=Europe, as=Asia, na=North America.

Religion: c=Christian, m=Muslim, j=Jewish, o=other, n=none.

Denomination: pe=Protestant Evangelical, pt=Protestant Traditional, po=Protestant Other, ca=Catholic, or=Orthodox.

Rate issue: 1=very important, 5=not important.

Most/Least important: T=Trade Justice, P=Pollution, W=War/terror, S=Sexuality, A=Animals, C=Climate, H=Human rights, I=Wealth Inequality.

Why: i=Injustice, n=Natural order, o=Ordered society, g=Offends God, w=Human welfare.

Proper relationship: 1=dominion, 2=stewardship, 3=naturalist.

Climate science now: 1=proven, 2=may be natural, 3=unproven.

Future evidence: 1=science, 2=weather, 3=social, 4=economic.

Male/Female?	Age?	Where do you live?	Occupation?	Religion?	Denomination?	Rate Trade Justice:	Rate Pollution:	Rate War/Terror:	Rate Sexuality:	Rate Animal Welfare:	Rate Climate Change:	Rate Human Rights:	Rate Wealth Inequ.:	Most important?	Why?	Least important?	Why?	Proper relationship?	Climate science now?	Future evidence?
m	40	eu	sc	n	-	2	1	1	5	4	1	1	1	C	w	S	w	3	1	2
f	20	eu	st	c	pe	3	2	2	2	2	1	2	2	C	w	T	o	3	1	2
f	50	us	of	c	ca	2	1	1	1	2	2	1	1	H	w	A	w	2	2	1
m	20	eu	sc	n	-	4	1	1	3	1	3	1	1	W	g	S	w	2	1	2
m	30	us	of	c	ca	3	2	2	1	2	3	2	3	S	i	T	o	2	2	2
f	50	us	ed	j	-	3	1	1	3	2	1	1	2	W	w	S	w	3	1	1
m	30	eu	ed	n	-	1	1	1	2	2	1	1	1	P	w	A	w	2	2	1
m	40	eu	sc	c	pt	2	2	2	4	3	2	1	4	H	o	S	w	2	1	1
m	20	eu	of	n	-	3	5	3	5	5	5	5	5	H	w	T	i	3	2	2
m	40	us	sc	n	-	2	2	1	1	2	3	1	1	I	w	C	i	2	1	1
m	50	us	sc	c	o	2	1	1	4	2	1	1	2	C	w	S	g	2	2	2
m	30	au	of	c	ca	2	2	4	3	2	2	2	2	P	-	W	-	3	2	2
m	50	na	of	n	-	2	2	1	3	4	2	2	1	W	w	A	w	3	2	1
f	40	us	of	n	-	3	3	3	4	4	2	2	5	H	w	I	n	3	2	1
m	30	as	sc	o	-	1	1	5	2	1	1	1	1	P	n	I	i	2	1	2
m	40	uk	sc	c	ca	2	1	1	2	2	1	2	2	P	w	S	i	2	1	2
m	30	eu	ed	c	ca	2	2	3	1	5	2	1	2	H	w	A	w	2	1	2
f	60	uk	hm	c	pt	1	1	1	2	2	2	2	2	P	w	I	n	2	2	1
m	40	eu	hm	n	-	1	1	1	5	1	1	1	2	C	w	S	n	2	1	2
f	50	uk	am	n	-	1	1	1	4	2	1	1	1	C	-	S	-	2	1	1
m	20	eu	st	n	-	4	1	1	3	3	1	1	4	C	w	T	n	2	1	3
f	50	us	x	c	o	1	1	1	3	2	1	1	1	H	i	A	i	3	1	1
m	30	us	of	n	-	2	3	1	4	4	3	1	1	I	w	A	w	3	1	3
f	50	us	ed	n	-	1	1	1	1	1	1	1	1	P	w	S	n	2	1	1
f	50	us	x	c	ca	2	1	1	2	1	1	1	1	H	w	S	i	2	1	2
m	40	us	of	n	o	2	1	1	3	2	1	2	2	W	o	S	i	2	1	2
f	60	x	am	c	pt	2	1	2	2	2	1	1	1	C	w	S	w	2	2	1
f	30	us	hm	n	-	3	4	4	4	3	2	3	3	S	w	C	n	3	2	1
m	30	eu	sc	n	-	1	2	2	3	3	2	1	2	T	w	A	n	2	2	1
m	40	us	sc	n	-	1	1	4	1	1	2	2	1	I	o	H	w	3	1	2
m	30	us	of	n	-	2	1	1	4	1	1	1	2	C	w	S	w	3	1	-
f	40	us	un	c	po	4	2	1	1	3	3	1	3	W	w	T	i	2	2	2
m	50	us	am	c	ca	3	3	2	4	4	4	4	4	W	w	C	w	1	2	1

Male/female: m/f. Age: rounded to nearest 10 years.

Where do you live: us=USA, uk=UK, eu=Europe, as=Asia, na=North America.

Religion: c=Christian, m=Muslim, j=Jewish, o=other, n=none.

Denomination: pe=Protestant Evangelical, pt=Protestant Traditional, po=Protestant Other, ca=Catholic, or=Orthodox.

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Why: i=Injustice, n=Natural order, o=Ordered society, g=Offends God, w=Human welfare.

Proper relationship: 1=dominion, 2=stewardship, 3=naturalist.

Climate science now: 1=proven, 2=may be natural, 3=unproven.

Future evidence: 1=science, 2=weather, 3=social, 4=economic.

Male/Female?	Age?	Where do you live?	Occupation?	Religion?	Denomination?	Rate Trade Justice:	Rate Pollution:	Rate War/Terror:	Rate Sexuality:	Rate Animal Welfare:	Rate Climate Change:	Rate Human Rights:	Rate Wealth Inequ.:	Most important?	Why?	Least important?	Why?	Proper relationship?	Climate science now?	Future evidence?
m	50	na	ma	n	-	3	1	2	3	2	1	2	2	C	n	S	i	2	1	1
m	40	us	of	n	-	3	2	1	4	4	1	3	2	C	w	S	w	3	1	1
f	70	uk	hm	c	pt	1	1	1	1	1	1	1	1	W	o	S	n	2	3	3
f	x	us	x	o	-	2	1	3	2	2	1	1	1	C	w	S	w	3	1	3
m	50	eu	sc	n	o	2	1	1	2	2	1	1	2	H	w	A	i	2	2	3
f	20	us	st	n	-	2	2	1	1	2	2	1	1	H	w	I	n	2	1	2
m	30	us	co	n	-	2	2	2	1	2	1	1	1	C	o	T	o	2	1	1
f	30	na	st	n	-	3	3	4	5	2	4	5	4	H	o	A	w	3	2	1
m	50	us	ma	c	po	2	2	1	4	4	2	2	3	W	o	S	w	2	2	4
m	30	as	of	o	-	2	1	1	3	2	2	2	2	P	n	S	w	2	1	1
f	50	us	sc	n	-	1	1	1	2	2	1	1	1	W	o	T	i	2	1	3
f	30	eu	sc	c	ca	1	1	5	5	5	1	1	5	H	w	A	w	3	3	1
m	30	na	co	j	-	2	1	3	2	2	2	2	2	P	n	W	n	2	2	1
f	20	us	of	c	o	1	1	1	1	1	1	1	1	W	i	W	i	-	-	-
f	50	uk	of	n	-	3	1	2	1	5	1	2	2	C	w	A	n	2	2	2
f	20	as	st	n	-	3	1	2	3	2	2	2	2	P	w	T	o	2	1	2
m	40	us	sc	n	-	3	2	3	3	3	3	2	2	P	n	T	i	2	3	1
f	30	us	st	c	or	3	1	1	2	2	3	1	2	H	i	C	i	2	2	2
m	40	us	sc	c	pe	3	4	1	1	4	2	1	4	H	i	A	w	2	2	1
m	20	us	st	o	-	1	1	5	1	4	1	1	1	I	w	W	n	3	1	1
f	50	na	of	c	pe	1	1	1	1	1	1	1	1	S	w	A	n	2	2	2
m	50	us	ed	n	-	2	1	1	2	2	1	1	2	C	w	S	o	3	1	2
m	30	us	st	o	-	3	3	3	3	3	3	3	3	P	w	W	o	2	2	2
f	40	au	co	c	o	2	2	2	2	2	2	2	2	H	w	T	i	3	2	1
m	30	us	ma	j	-	2	5	2	5	5	5	1	2	H	w	P	w	1	3	2
m	50	uk	sc	n	-	1	1	1	1	3	-	1	1	T	w	A	i	2	1	1
f	50	na	sc	c	pt	3	1	1	3	3	1	1	2	P	w	T	i	3	1	3
m	50	us	of	n	-	1	1	1	2	2	2	1	1	I	w	S	o	1	2	1
f	20	us	st	o	-	2	1	2	1	1	1	1	1	P	n	T	i	3	1	2
f	30	eu	of	n	-	1	1	2	1	2	2	1	1	H	w	C	i	2	1	1
m	40	na	am	o	-	2	1	2	3	3	2	1	3	H	w	S	i	2	1	1
m	40	na	of	n	-	2	1	2	2	2	3	1	1	H	w	C	i	2	1	1
m	30	as	st	m	-	1	1	1	1	1	1	1	1	W	w	C	i	3	1	1

Male/female: m/f. Age: rounded to nearest 10 years.

Where do you live: us=USA, uk=UK, eu=Europe, as=Asia, na=North America.

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Male/Female?	Age?	Where do you live?	Occupation?	Religion?	Denomination?	Rate Trade Justice:	Rate Pollution:	Rate War/Terror:	Rate Sexuality:	Rate Animal Welfare:	Rate Climate Change:	Rate Human Rights:	Rate Wealth Inequ.:	Most important?	Why?	Least important?	Why?	Proper relationship?	Climate science now?	Future evidence?
f	40	uk	st	n	-	1	1	1	1	1	1	1	1	W	o	S	w	3	2	1
m	40	uk	sc	n	-	2	1	2	2	3	1	2	1	I	i	A	o	3	1	2
f	40	us	sc	c	pe	1	3	1	1	3	4	1	2	S	g	C	w	1	2	1
f	20	uk	st	c	pt	3	1	3	2	2	2	3	3	P	n	T	i	2	1	2
m	20	eu	st	n	-	4	2	2	2	3	2	1	1	I	i	T	n	3	1	3
m	20	eu	st	c	ca	5	1	1	1	2	2	1	5	H	w	W	g	3	2	3
f	50	us	sc	c	or	2	1	3	3	1	2	1	1	I	i	S	i	2	1	3
m	40	us	of	n	-	2	2	3	2	3	2	2	4	T	w	A	n	3	2	3
f	30	uk	ma	c	pe	1	1	1	2	2	2	1	1	T	w	S	w	2	1	3
m	30	na	st	c	pt	2	2	2	2	2	2	2	2	T	i	W	w	2	2	3
f	40	eu	of	c	pt	1	2	2	4	4	3	2	2	T	w	A	o	3	1	1
m	50	na	sc	c	pt	2	2	2	4	3	1	2	2	C	w	S	o	2	1	2
f	40	us	st	x	-	1	1	1	1	1	1	1	1	I	w	P	w	3	1	1
f	30	uk	of	c	o	1	2	2	4	4	1	1	1	I	i	A	o	2	1	1
m	40	us	sc	c	ca	3	2	1	1	3	4	1	3	W	o	C	i	3	2	1
f	40	us	hm	c	pe	3	3	1	3	1	5	1	3	W	w	C	n	3	3	1
f	50	uk	of	c	pe	1	2	1	3	4	1	1	1	H	w	A	g	2	1	1
m	30	eu	of	n	-	1	2	1	4	2	3	1	1	T	o	S	w	3	2	1
f	30	eu	sc	x	-	2	2	1	3	5	3	1	2	H	w	A	w	2	1	1
m	30	uk	sc	c	pe	2	2	3	2	4	1	3	2	C	w	A	o	2	1	1
m	40	na	x	c	ca	1	1	1	4	1	1	1	1	H	w	S	o	3	3	2
m	30	us	st	n	-	1	1	1	3	4	2	2	3	T	w	A	n	3	1	1
f	40	uk	hm	c	pt	1	1	1	1	2	2	1	1	S	g	A	i	2	2	1
m	50	us	sc	c	pe	2	1	2	3	4	2	1	5	H	w	A	w	2	2	1
m	30	au	st	c	ca	1	2	1	2	2	1	2	2	C	n	A	o	2	1	1
m	30	us	of	c	o	1	1	1	1	1	1	1	1	S	g	C	w	2	3	1
m	40	us	sc	n	-	2	1	1	3	3	2	1	1	H	i	S	w	2	1	1
m	40	au	sc	n	-	1	1	2	3	2	1	1	1	C	w	S	w	3	1	1
m	40	au	sc	c	pe	1	2	4	2	3	3	1	1	I	w	C	n	2	2	3
m	30	as	st	m	-	1	5	5	5	3	2	1	5	H	g	A	i	2	1	3

Male/female: m/f. Age: rounded to nearest 10 years.

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Appendix C: Web survey forms