

**Religious Responses to Fisheries Decline in
Irish Coastal Communities with a Comparison
to the Pacific Northwest Region, USA***

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Introduction

Worldwide, there is great concern for the depletion of commercial fish stocks (FAO 1997; Le Sann 1998). Much academic ethical analysis of fisheries has been based on Garrett Hardin's 'tragedy of the commons'—a simple model of human behavior that concludes: 'individuals locked into the logic of the commons are free only to bring universal ruin' (Hardin 1968; de Steiguer 1997; Baden and Noonan 1998). Fishing management has integrated Hardin's presuppositions into policy design, thereby assuming all fishers are self-profit maximizers, who are inveterate free riders, unaware of conservation. Recently, anthropologists have drawn attention to the dynamics of small, traditional fishing communities, many of which have existed for centuries without collapsing the populations of harvested species, and all of which have some form of indigenous environmental regulation (McGoodwin 1990; Cordell 1989; Dyer and McGoodwin 1994; Pinkerton and Weinstein 1995). This work points to two important deficiencies in the religious environmental ethics literature—relatively little is known about: (1) how specific communities or trades develop an 'environmental ethic'; and (2) how religious practice and belief respond to changing environmental concerns in industrialized cultures.

The purpose of this study is to document the impact of fisheries decline on religious beliefs, superstition and concepts of animal protection in coastal communities in the Republic of Ireland. Fisheries in the North Atlantic, North Sea and the Irish Sea have suffered major collapses in the last two decades (FAO 1997; MacGarvin 1990; Kennedy 1995; Charles 1996; Berrill 1997; Kurlansky 1997; Soares 1998;

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Hinrichsen 1998). Our analysis is based on interviews, originally designed to investigate the ethics of fishers and residents of fishing-oriented ports. This discussion analyzes 'passive' regulation of the behavior of fishers, through religious, superstitious or folklore-based beliefs, and perceptions of community and individual job satisfaction, in areas with relatively healthy fisheries, and those where commercial fishing has largely disappeared as a local trade. To provide insights into differences among Euro-American fishers, the Irish interviews will be compared to interviews from Oregon and Washington, USA, where the salmon catch has suffered major decline (Cone 1995; Cone and Ridlington 1996; Glavin 1996; White 1995), with one of a series of collapses experienced by US west coast fisheries in the past century (McEvoy 1986).

Methods

Study Areas and Selection of Informants

The communities selected for study were all considered Natural Resource Communities (NRCs), 'a boundary of area in which the primary cultural existence is based on the utilization of renewable natural resources' (Dyer and McGoodwin 1994). The communities were equally split between (1) closed NRCs, where residents are very family orientated, traditional fishing is one of the only occupations, the area is geographically isolated and external influence is minimal; and (2) open NRCs, where residents are very mobile, tradition is present but less relevant, and occupational pluralism is found. A second criteria for closed NRCs was the retention of Irish culture, as indicated by the continued use of the Irish language (Gaeltacht regions), and by lack of strong external cultural influences, such as the development of a large tourist trade or factory-based economy. (See MacCullagh 1992; Waddell, O'Connell and Korff 1994; Fox 1995; and Gillmor 1993 for discussions of coastal Irish life; and Taylor 1995 for an analysis of Irish Catholicism.) Half the communities in each division (open and closed NRCs) came from viable fisheries and half came from stressed or declining fisheries. Helvick Head (Co. Waterford) is predominately Irish speaking with a rich fishing folklore tradition and a viable fishery. Dunmore East (Co. Waterford) is primarily non-Irish speaking and non-Irish vessels frequently dock in its large, well-protected harbor. Dunmore East participates in several fisheries and is the most important herring port in the southeast region of Ireland. Youghal (Co. Cork) is non-Irish speaking and, although it has a fishery cooperative, has lost most of its former fishing fleet. Clogherhead (Co. Louth)

is still traditional in orientation, but has a very exposed and isolated port, and due to fisheries decline in the Irish Sea, it has lost all but its prawn fishery. Burtonport or Ailt an Chorrain (Co. Donegal) is in a traditionally Irish-speaking area, but is more heavily oriented towards tourism than Helvick Head. Because of the proximity and competition from Killybegs (the largest fishing port in Ireland), Burtonport has lost much of its local fishing. Helvick Head and Clogherhead are classified as traditional closed NRCs and the other sites are considered non-traditional open NRCs. Only Helvick Head and Dunmore East are classified as having viable fisheries, while Youghal's, Clogherhead's and Burtonport's fisheries are declining or non-viable.

The US interviews presented as a comparison were conducted using the same questionnaire in three areas of the Pacific Northwest: Gold Beach to Port Orford, Oregon; Garibaldi, Oregon; and Westport, Washington. All of these sites have declining salmon fisheries, viable crab and bottom fisheries, and a charter or recreational fishing fleet. The US sites are all in transition from a primarily commercial fishing economy to one based on diversified interests and increased influence on the recreational and second home or retirement development sectors. A majority of the interviewees had fished commercially, or came from families that had fished commercially. Interviewees included commercial and charter fishers, and owners and employees of fishing-related businesses.

In small communities that are suspicious of outsiders, random selection of informants is difficult if not impossible. We asked local business persons to help identify fishers and community members partially dependent on commerce from the fishing trade, or we located possible informants on the docks, on their vessels or in their business offices. We advised informants that they could retract the interview if they wished and gave them an opportunity to do so after the interview was completed. Interviews were recorded on microcassettes, for transcription later. Interviewers attempted to be neutral towards the responses and tried not to affirm what the interviewee was saying, whether or not they agreed with the statements. Interviewers did prompt the interviewees when they were slow to respond and also clarified questions. If an interviewee became antagonistic or would not answer, the question was skipped. Customers, family and crew members sometimes interrupted the interviews. In some cases, interviews were conducted on two different days owing to the schedules of the respondents.

Interview Protocol and Data Analysis

Sociological questionnaires on environmental issues usually propose statements and ask the respondent to agree or disagree, or respond along a gradient from 'always' to 'sometimes' to 'never', or from 'completely true' to 'completely false'. These formats frame the questions in the language of the investigator. Oral history and ethnographic studies reduce the impact of the investigator by developing extended dialogs, or by using general questions to prompt responses. By using non-specific language and open-ended questions, the interview protocol utilized by this study allowed the respondent to frame answers according to his or her priorities, or those that come first to the mind. We attempted to encourage replies and discussion that would identify individual and community concepts or virtue, right action and duty, as well as value conflicts, in the language of the community.

We used an 85-question format for fishers and a shorter 43-question version for other community members. The questions are in six categories: background, experiences, general ethics, safety, economics and environment. The interview begins with personal history in maritime trades and general questions about experiences with and feeling toward the sea. One prompt in this section is, for example: 'Describe the sea from the fisher's perspective'. It then asks general ethical questions such as 'What are the characteristics of a good (moral, ethical) fisher?' The conclusion of the protocol employs specific questions about environmental and animal protection, such as 'Are there any animals you would kill or drive away from your nets or lines?'

The next section shows the questions or information types utilized in the analysis presented here. The fishers' perceptions of community health and their job satisfaction and attitudes towards the sea are computed as indices based on responses to two or more questions. We evaluated the degree to which the fishers are religious or superstitious using a ratio of negative to positive responses to a complex of questions concerning these topics. We used questions concerning the informant's view of his or her future in fishing, and the training of others to fish to create a compound job satisfaction score (Pollnac and Poojie 1988), and questions concerning animal protection to evaluate the importance of community tradition to environmental care. The statistical analysis employs Statistical Programs for the Social Sciences (SPSS) Version 7.5 or Student Version 6.1. Comparisons between groups of respondents use either Crosstabs to compute non-parametric chi-square (Pearson with Fisher's correction if less than five in a category) or use the Nonparametric Procedure (SPSS 1994; SPSS 1997;

Green, Salkind and Akey 1997). A result is considered significant when sig. = 0.05 or less.

Questions Utilized and Computation of Indices

The same questions were used in the US and in Ireland, with minor adjustments for geography and names of equivalent organizations.

I. Religious belief and practice—index is ratio of positive to negative answers

1. Do your religious beliefs in any way influence your fishing? (Cue: Do you have your boat blessed?)

II. Superstitious influence—ratio of positive to negative answers

1. Do you have any practices or charms you believe bring good luck or prevent bad luck to your fishing or that ensure safety or prevent bad weather?

2. Are there any places you believe it is bad luck to fish?

3. Are there any animals, weather conditions or natural features that are good or bad luck?

III. Job satisfaction—index is sum of points

1. Are you training your children or younger people to fish? (Yes/no)

2. Why do you stay with the fishing trade? (Tradition = 1, Love = 2, Money = 0)

IV. Community relationships—index is sum of yes or positive answers

1. Has the fisher always lived in this community?

2. Has the fisher always fished from this community?

3. How did you learn the fishing trade? (locals or family is positive answer)

4. Who do you fish with? (locals or family is positive answer)

5. Does your community support you?

V. External influences—index is ratio of positive to negative answers

1. Have you ever worked in the Merchant Marine, Navy or Life Saving Service (Coast Guard)?

2. Have you ever fished outside of Irish (US) waters?

3. Have you ever worked on a non-Irish (non-US) vessel?

VI. Animal protection—number of positive answers

1. Are there animals or sea creatures you would not kill? Why?

2. Are there any animals you would kill or drive away if in your nets or around your boat?

3. Are there any animals, weather conditions, or natural features that are good or bad luck?

*Results**Characteristics of Irish Informants*

The Irish interviewees included 34 fishers (23 fully taped) and 23 members (15 fully taped). Eleven informants were women including one fisher. Twenty-seven fishers have owned their own vessel, 23 were fishing full time, three part time and eight were retired. Five fishers were under 40 years of age, eight were 40–49, five were 50–59, nine were 60–69 and six were 70 or older. Community members included public house and hotel employees; managers and employees of fisheries cooperatives and processing plants, teachers (Irish-speaking), government and harbor employees, and fishers' wives or widows (all involved in marine harvest, at least in book-keeping for a fishing vessel or in seaweed gathering). The analysis that follows utilized information from all informants who answered the appropriate questions, unless credited specifically to 'fishers'.

Religion and Folklore

The interviews indicate that decline of a fishery has a significant impact on the association between fishing and religion, superstition, job satisfaction and community-initiated animal protection. Positive responses to religious and superstitious influence on fishing significantly decrease (Mann–Whitney $U = 1.50$, sig. = 0.0001) even in traditional communities affected by displacement of fisheries employment to larger ports, or by depleted fish stocks. The majority of Irish responses described practices or rituals originating in folk Catholicism, although two informants did discuss positive relationships between Protestant and Catholic fishers. Both viable and stressed fisheries reported positive religious responses including the yearly blessing of the boats (14/4 respondents, viable/stressed), the carrying of a crucifix on a vessel (12/2), carrying holy water (12/2), and the concept that fishers are very religious or should participate in religious activities (10/3). (The reader should note that 'blessing the boat' was used as a cue in the interview question.)

The viable fisheries, however, reported a greater diversity of practices, particularly concerning pattern (saints') days, holy wells and prayers. Responses included participation in a pattern day (5/0, viable/stressed), visiting holy wells or crossing oneself when passing wells (when at sea viewing wells on land) (4/0), saying prayers as lines or nets are 'shot' (4/0), carrying a picture of a saint (3/0), carrying saints' bread (3/0), carrying or reading a Bible (2/0), and avoiding fishing on Sunday (2/0). One older, Irish-speaking informant also

mentioned blessing the sand to encourage the herring to come in. In response to a tragic drowning of two young lobster fishers, the fishers of Helvick Head stopped fishing until the bodies were recovered, even though the accident occurred during the economically critical summer season. Members of the community came to the dock daily to recite the rosary and to offer the 'Fisherman's Prayer' in Irish:

May the God who created the sea accompany you as you go there. Mary, star of the sea be with you to keep you safe, Peters' helping hand be with you as you haul your nets on board. St Brendan, the Saintly Navigator to bring you safely ashore with the grace of the son of God Jesus who was once a boatman too. May you be in his company and in the care of St Nicholas (Cait Whelan).

Helvick Head had an average of 3.3 positive religious responses per fisher interviewed, or four times more than the average of 0.8 per fisher interviewed in less traditional communities with collapsing fisheries. The 24 respondents from viable fisheries mentioned rituals or religious activities 69 times, while 16 respondents from stressed fisheries mentioned rituals or activities only 11 times (chi-square = 11.12, sig. = 0.0009). The responses from the stressed fisheries were therefore both less diverse and reported fewer religious practices overall than those from viable fisheries.

Although Helvick Head and Dunmore East produced similar information on traditional religious practices, the informants differed in their personal religious participation. Every interviewee from Helvick Head reported some degree of personal involvement in religion. At Helvick, St Nicolas's Day (although it has been moved from its traditional date in December to New Year's, and has been reduced from three days to one) is still an all-community event. We visited St Nicholas's well, which was in disrepair, although the current owner was quite concerned about it and discussed rebuilding the well box. Fishers from Helvick still use or recognize the wells dedicated to St Declan, including the cliff top wells at nearby Ardmore. The use of holy wells and participation in pattern days was once common throughout rural Ireland (Mould 1957; Nolan and Nolan 1989; Harbison 1991). Five out of 11 respondents from Dunmore East who answered the question about religion, indicated they were not personally religious, and eight out of 16 who described their personal beliefs from the non-viable fisheries, indicated little interest in religious practices.

All the Irish communities used language implying they thought the relation between Christianity and the fishery was declining. At Helvick Head, five informants discussed the disinterest of younger peo-

ple, or referred to some religious practices as occurring in the 'old days' or among 'older' fishermen. At the other interview locations, informants discussed religious practices as 'no longer important', or religious participation as 'decreasing', 'not among the younger people', or 'not (present) anymore'. Overall, seven respondents expressed transition, and 14 treated religion as fully separated from fishing.

Superstitious responses typically discussed Irish *piseógs*, or harbingers of bad luck, including: never fish when you see a red-haired woman, a pig, a fox or a rat; never whistle on a boat; never carry a rabbit (for food) on a boat, and never carry a white-handled knife. A few superstitions convey instructions for piloting, such as, always turn into the wind when leaving port or avoid the 'cursed' island. The most frequently reported *piseógs* are either terrestrial creatures (rather than marine) or are identified by color (white, red). Several respondents mentioned the belief that *piseógs* should never be found on a vessel. The general concept reflects a division between land and oceanic environments. Although only three informants offered naturalistic explanations for *piseógs*, these all had to do with potential damage to the vessel, which is a realistic possibility in the case of gnawing animals, such as rats and rabbits. In reference to specific 'bad luck' locations, one community member from Helvick Head mentioned ghost ships. Six informants from Burtonport, where most of the remaining fishers now work out of the larger port of Killybegs, described a cursed island. According to their accounts, some Protestants had been murdered there, and an 'old man' (never named) had predicted the island would be cursed. Two boats would sink in the vicinity of the island, with all hands, and a third vessel would sink and leave only one survivor. The owner of a vessel that sunk near the island, confirmed the fact that there had been fishing boats lost. This belief reflects recent social conflict in Ireland, and unlike *piseógs*, appears to be localized to the Burtonport area. The discussion of the cursed island occurred throughout the interviews, rather than in direct response to questions about 'beliefs', and therefore may be under-reported.

The superstitious responses concerning *piseógs* declined in stressed fisheries following the same pattern as religious responses (Mann-Whitney $U = 14.0$, sig. = 0.002). Where superstition is more evident, the beliefs are recognized by the entire community, who rarely report eccentric individual practices. Gaeltacht fishers do not differentiate strongly between superstition, religion and traditional folklore connected to the Irish language. As an Irish-speaking informant stated: 'The Irish area of Ring (Helvick) would be very linguistically strong in

the sense of fishing folklore. The Gaeltacht is extremely important to the communities' fishing.' English translation may therefore establish artificial boundaries in an integrated corpus of traditional beliefs, while religion and superstition respond in similar ways to community change. In the Irish interviews, an inquiry about practices or charms intended to bring good luck or divert bad luck, sometimes prompted religious responses. The Irish use religious icons, blessings and prayers to invoke beneficial interactions with nature, such as a good catch, and to protect themselves from natural hazards. Superstitions, conversely, identify the negative or dangerous, such as carrying a terrestrial creature on a fishing boat.

Job Satisfaction and Perception of Community Support

Similarly, job satisfaction is high in viable, traditional communities and significantly lower (Mann-Whitney $U = 5.5$, sig. = 0.025) in non-viable, non-traditional communities. Fishers from Helvick had the highest job satisfaction, with an average index of 1.5, while those from non-traditional, non-viable fisheries had the lowest, with an average index of 0.58 per fisher. The viability of the fishery is the more important component here, with fishers from the non-traditional, but economically viable, fishery of Dunmore East reporting job satisfaction just slightly less than Helvick Head (average index 1.2). Economic stress or decreased social status may be an explanation for low job satisfaction in the non-viable fisheries. In this case, the communities were very consistent in their responses, producing low statistical variance. Typical negative discussions were orientated toward the good past and the fear of the future in fishing. Parents often did not want their children to fish and become fishers. High job satisfaction was obvious among participants in viable fisheries who felt they had an important role in providing fish to the world, encouraged their children to fish and believed that they could do nothing else but fish until they retired or died. Connected to this, community members in the traditional viable fishery, often mentioned vocabulary like 'hero' to describe characteristics of fishers, indicating the high social status fishers have in their community. In all the other communities, the fishers were never termed 'heros'.

The Irish fishers had a generally positive view of community support for their trade. The fishers from the traditional viable fishery had the highest average of positive responses at 1.9, while those from the non-traditional, non-viable fisheries had the lowest at 1.1. Despite the stressed fishery of Clogherhead, this more traditional site provided slightly more positive responses on average, 1.66, than did the more

robust fishery of Dunmore East at 1.5 (Mann–Whitney $U = 1.000$, sig. = 0.011).

Interestingly, the fishers from traditional communities reported as much exposure to external influence, such as fishing outside Irish waters or working on a non-Irish vessel, as did those from non-traditional ports. There was no statistically significant difference in this regard. The fishers from Helvick Head, Clogherhead and Burtonport were primarily trained by family members, while those from Dunmore East were not. This implies that contact with cultural influences exogenous to the home communities is not as critical a factor as the integrity of the fishery in determining other tradition-dependent variables, such as linking religious practices to fishing.

Religion and Superstition in the Pacific Northwest, USA

Forty-four interviews collected in the summers of 1997 and 1998 in the Pacific Northwest, USA, contain information on religious beliefs and superstitions of participants in fishing-related trades. Any evidence of group or community participation in common ritual is absent, other than participation in the annual blessing of the fleet (which is not held in all ports). Further, the religious responses are much more eclectic and personalized than those of Irish fishers, and even fewer US fishers and community members report religious participation. Twenty-eight of 44 US respondents reported no knowledge or interest in religion at all, three reported no personal ties to religion relative to fishing but did mention the blessing of the fleet, two reported being strongly religious but did not associate religion with fishing, and two used religious language in their responses to one or more interview questions but when asked if religion had any connection to fishing they responded negatively. Thus 35 out of 44 (80 percent) disassociated religion from fishing, including four people who expressed religious beliefs or interest in religion.

Of those reporting ties between personal religious beliefs and fishing, two traditional Christians (both over 70 years old) expressed a strong concern for human sin and for lack of religious belief in their home communities, but did not tie these concerns specifically to fishing, other than considering religion to be a generator of right action. One of these fishers discussed the possibility of people going to hell, while the other expressed a concern that societal disbelief and wrong doing would lead everyone to a final judgment. Three Christian interviewees used religious belief to explain or rationalize their participation in fishing. One described God as a creator, making the oceans and fish for the use of 'mankind'. Another remarked: 'I have

religious beliefs that (fishing) doesn't bother me. The Lord caught a lot of fish. All through time there's been fishermen, so why not?' This is the only statement on the US interview tapes that directly refers to Christ or to a religious persona in human form (unlike the Irish interviews where the cult of the saints is very evident). A third informant reported he had become involved in the charter fishing industry because he was Christian and desired employment that encouraged 'clean and wholesome' activities. Two interviewees had views that could be typed as 'nature religion'. One reported being an 'existential Darwinist' and stated his religious beliefs were based on the diversity in nature. Another said: 'the sea is my church and elaborated on the relationship between nature and personal meaning. Two informants gave mixed responses indicating they believed in 'God and mother nature'. Of the two interviewees who used religious language, but denied a tie between religion and fishing, one referred to God's creative activity in nature as positive and aesthetic, while the other discussed a belief that different animal species possessed their own specific karma. This karma was neither good nor bad, but was related to the role of the creature in the oceans. His wife (not in formal interview) mentioned a belief that violent removal of Native American residents had given a coastal town a 'bad karma' and this was partially responsible for drug abuse and negative attitudes among residents of European heritage.

The trend in the US responses represents a gradient from very traditional sin and apocalypse-oriented Evangelical Christianity to a mix of Christianity and nature religion, to nature-centered spirituality (Albanese 1990). These communities lack shared religious symbols and rituals tied to fishing or fishing vessels, other than the blessing of the fleet. The number of respondents expressing religious views is too small to draw general conclusions about their specific characteristics, but it is notable that none of the eight respondents younger than 30 years old had any knowledge of a relationship between religion and fishing, and that none of the respondents who used terms reflecting nature religion or karma had lived in the interview location for more than five years. Another interesting association is that about half those respondents expressing Christian views or indicating an interest in organized religion were also involved in leadership roles in organizations such as the Chamber of Commerce or fishers' associations. This suggests that a willingness to participate in religious events may be correlated with a willingness to seek societal or community solutions to problems. Testing this hypothesis would, however, require a much larger sample because of the overall lack of religious participation

among the interviewees. Unlike the Irish, only two older US fishers expressed concern about religious change or unbelief, and there was little evidence the US fishing communities perceived themselves to be in religious transition.

Only three Pacific Northwest informants reported they had attended the blessing of the fleet and a mere two said they were regularly involved. One of the latter was a member of the Veterans of Foreign Wars, who were sponsors of the Westport ceremony, and the other was active in community organizations also serving as sponsors. Several respondents indicated they were too busy to go or would be out fishing on that day. The Pacific Northwest understanding of the event differs from that of the Irish Catholics. Northwest fishers do not believe the blessing will forward safe return from the sea or good catches. One skipper stated that the blessing was for the entire fleet, but he did not have to be present to receive it, so he fished on that date. At Westport, the rituals honoring war dead and fishers lost at sea place the emphasis on memorialization, rather than on requesting divine favor and protection for the fishing trade. The Irish, in contrast, associate the blessing with both economic productivity and community unity. Dillon (1998) describes a 1983 blessing of the fleet in Anacortes, Washington, as response to the loss of two fishing boats in the Bering Sea, as the first in 20 years. This service included a circling of vessels past the 'town's memorial to lost seamen'. Dillon comments: 'In recent years...the blessing had fallen by the wayside, as local boats fishing in local waters had become as much of an anachronism as the ceremony itself.'

Like religion, Pacific Northwest superstitions tend to be individualized. Informants familiar with commercial fishing did report some common or coastwide superstitions, such as not leaving port for a long trip on a Friday. Those familiar with commercial fishing also reported practices or beliefs similar to those found among European fishers, such as not whistling on the boat, not speaking of fishers who died at sea, and turning away from the sun when leaving the harbor. The interviews indicate some mixing of cultural beliefs, such as the five Westport informants, all involved in the charter industry, who mentioned the Hawaiian religious belief that carrying bananas on the boat was 'bad *kahuna*', meaning that it was bad luck. The Westport informants did not mention any other Hawaiian *kapu* (taboo), nor did they appear to have any knowledge of the origins of the word *kahuna* (a priest or ritual professional) (Valeri 1985; Swain and Trompf 1995).

The majority of US superstitions were personal, including spitting on or kissing bait, carrying a family memento such as a white rose

from a fisher's wife, or having a guardian or watcher for the boat (such as three trolls or a group of frogs). Such mementos tie fishers to the land and to their families, but unlike the saints' bread or icon on an Irish vessel, they serve an individual rather than the entire crew. US interviewees did associate community-wide superstitions with 'older fishers', indicating that the shared superstitions were losing importance. Questions about charms or practices to ensure luck did not elicit religious responses, with the exception of the mention of *kahuna*, which has been culturally isolated from its original Hawaiian religious cultural context.

Discussion

These results link fisheries decline to loss of traditional Irish culture and to reductions in job satisfaction and intracommunity support. Irish Catholicism provides symbolic and social ties between the fisher and his or her home port or region, other members of his or her crew, and the fish. Christianity also serves as a focal point for dealing with danger and tragedy. The fisher from a traditional village with a viable fishery is more satisfied with the trade, believes the job to be important, and has a more affirming view of his or her community. Bratton and Hinze (in press) have found that traditional values concerning animal protection, particularly an emphasis on protecting seabirds also decrease as fisheries decline. Informants from stressed fisheries are more variable in their views of animal protection ranging from strongly protective to negative or disinterested. Traditional views of animal protection are based primarily on benefits which the species, such as birds, provide to the fishers and are not articulated in religious terms, but changes in these values parallel those in religion and superstition.

Among Pacific Northwest fishers, religion was far less important than in Ireland, and played little role in uniting the fishers. A few US fishers did use religious language to discuss their relationship with the marine environment or with the fishing trade. Their responses were more individualized, and suggested a gradient from Evangelical Christianity to nature-oriented beliefs, with older, long-term residents of coastal ports being more likely to respond in Christian terms. A few fishers expressed a respect for nature in religious language, but religious belief was rarely reported as a motive for protection of animals or the marine environment.

In *Keepers of the Game: Indian Animal Relations and the Fur Trade*, Calvin Maring (1978) reports that during the North American colonial

period, when European traders exchanged goods for furs, Native American hunters 'recognized that the reckless hunter was digging his own grave...yet the raid on fur bearers continued'. Native Americans had abandoned religious beliefs that had protected the wildlife from over-harvest. Martin finds that Christian missionary activity displaced regional religion and thereby added to the demise of North American large mammal populations. Martin argues that the cause of this ethical change was not due to previous technological incapacity by natives, but 'the most poignant and profound tragedy of white contact for these people was [the] despiritualization phenomenon'. Christianity and its missionaries, Martin believes, removed the 'spiritual sense of obligation and the fear of retribution...[that] ensure the effective conservation of resources'.

Our results suggest that although Christianity may, in some cases, help to initiate cultural change that leads to neglect or abuse of natural resources, folk Christianity may itself be subject to degradation and separation from resource-based occupations, in the wake of increased industrialization or deployment of more efficient harvest technologies. Economic and societal change can reduce the importance of Western religious traditions in a NRC. The process of despiritualization described by Martin is applicable to family-based Irish fishing, during the period when local fisheries are displaced by corporate fishing, either in the form of larger vessels or international fleets. We suspect that this process will ultimately also replace the endogenous community ethos of bird protection with an exogenous ethos based on legislation. The displacement of artisanal fishing will both change motivations for respecting nature, and will compartmentalize human interactions with the environment, reducing ties to religious ritual and belief. In traditional NRCs, religion integrates humans with the landscape, and provides a dialog with a natural realm that can be both beneficent and extremely unforgiving.

The results of this study suggest that present trends in fisheries management among the nations of the European Union, such as the sharing of quotas and allowing vessels of any EU nation to fish in Irish waters, pose a threat to retention of Irish cultural traditions and language. This threat is most serious if corporate competition continues to displace family operations from Gaeltacht. Historically, a number of Gaeltacht areas have survived on Ireland's isolated coasts, with fishing as a major source of employment. With approximately 80,000 native Irish speakers left in Ireland (and almost all of these are bilingual or use English in their business activities), Gaeltacht must be considered 'culturally endangered'. The impact of European Union

fisheries policies on cultural retention for several minority languages and coastal cultures needs immediate further study. Cordell (1989), Pinkerton (1995) and Acheson and Wilson (1996) all suggest community-based management or sea tenure is advantageous for not just artisanal fishers but for conservation of marine ecosystems. Setting near-shore waters aside for Irish language fishers, and even for fishers from English-speaking ports retaining Irish cultural traditions, could both protect the fishery and the heritage of the fishers. Loss of both Native American and European heritage maritime traditions is a likely result of fisheries decline in the Pacific Northwest as well.

The literature on religious and philosophical environmental ethics proposes new models for a postmodern or post-industrial environmental ethic, without considering how the ethics of NRCs evolve in response to economic or environmental stress. Too often, academic approaches treat religion as a 'constant', not as a social variable, responding to industrialization. Academic ethicists assume that the exogenous changes they propose will be acceptable to Christians living in NRCs. The results of this study indicate that the collapse of fisheries can quickly fray the ties between folk Christianity and fishing. Further, the power of Christianity to prompt ethical response varies among fishing communities. In the Irish case, a unified religious response to a community crisis is more likely than it is in the US Pacific Northwest. Despite the past importance of Christianity to fishers in both regions, academic theology that does not consider present community religious beliefs and economic constraints will be ineffective in stimulating constructive and practical responses to the present fisheries crisis.

Small fishing communities do have some levels of environmental protection woven into the community's social traditions and norms. In these communities, we find there is a progressive decline in environmental concern and in religious response when external management or competition that follow these general stages (modified from Pollnac and Poogie 1988; and Acheson and Wilson 1996):

1. Competition by big business fishing that is supported by government management begins to damage small-scale fishing practices.
2. As the individual fisher is plagued by rules and reduced catches, the fisher begins to suffer from decreased job satisfaction. With economic strain, the fishing community begins to move towards other economic traces, and fishing traditions are abandoned.

3. Religious influence and traditions of environmental protection decrease rather than become more evident, and they are eventually replaced by exogenous regulation (if the fishery survives at family-operated scale at all).

Ethics that may have taken a long period of time to evolve, dwindle in the wake of industrial-scale fishing. The ability of communities to initiate a cooperative social response to political or environmental threats is actually undermined, as religion, along with other elements of regional culture disappears with the development of an industrialized, spatially displaced and primarily wage labor work force.

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