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Transforming the Fisheries : The Politics of Environmental Sustainability

A thesis submitted for the degree of Doctor in Philosophy

Department of Sociology,
Trinity College, Dublin
2012

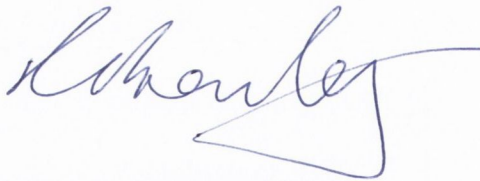
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Table of Contents

Acknowledgements	7
Summary	8
Introduction	10
<i>Introduction</i>	10
<i>The politics of sustainability</i>	12
<i>The commons, nature and experience</i>	17
Chapter 1 From land to sea : representation and experience	22
Introduction	22
In pursuit of power	24
<i>The local as global</i>	24
<i>Common sense</i>	28
<i>The problem with power</i>	31
Going to sea: beyond representation	33
<i>Re-thinking subjectivity</i>	33
<i>Continuous experience</i>	34
Suspending difference	38
<i>Observing from a distance</i>	39
<i>Encountering the 'subject'</i>	40
<i>Being-together</i>	42
<i>Continuous experience and research</i>	47
Conclusion	50
Chapter 2 Biopolitics and the new enclosures	52
Introduction	52

The 'Preservationist Turn'	54
<i>Grain scarcity and the rise of biopolitics</i>	54
<i>Sea Change</i>	57
<i>The 'preservationist turn'</i>	60
Stewards of the sea	64
<i>The liberal and illiberal faces of biopolitics</i>	64
<i>Policing the fisheries</i>	66
<i>'Responsibilising' fishermen</i>	69
The End of the line	72
<i>Displacing value</i>	72
<i>Ecological modernisation</i>	76
Conclusion	78
 Chapter 3 Post-politics and beyond	 80
Introduction	80
Towards consensus in fisheries governance	82
<i>We are all parts of the common</i>	82
<i>From fishermen to stakeholders</i>	86
<i>Exclusion through inclusion</i>	89
The post-politics of environmental sustainability	91
<i>Post-politics and the 'parliament of all things'</i>	91
<i>The problem with consensus</i>	95
<i>Beyond post-politics</i>	98
Imperceptible politics	101
<i>Beyond representation</i>	102
<i>Continuous experience and politics</i>	104
Conclusion	106
 Chapter 4 From commons to commoning	 109
Introduction	109
A 'third way' for resource management	112

Managing the lobster fishery	114
<i>History</i>	115
<i>Beyond private/ public</i>	116
<i>The need to be non-prescriptive</i>	117
<i>Governance from above</i>	119
Whose commons?	120
<i>The local in context</i>	121
<i>Defining the local</i>	122
<i>Hardin returns</i>	124
From commons to commoning	126
<i>Compelled by the world</i>	126
<i>Thickening place</i>	128
<i>Relational autonomy</i>	132
Conclusion	134
 Chapter 5 Science and Nature	 136
Introduction	136
The end of Nature and the 'new empiricism'	138
<i>The changing role for science</i>	138
<i>Making science effective</i>	140
Getting to know lobsters	145
<i>The problem with lobsters</i>	145
<i>The role of fishermen</i>	147
Natural economy	150
<i>A new nature</i>	151
<i>Beginning with consensus</i>	152
From epistemology to experience	154
<i>All at sea: the problem with knowledge</i>	155
<i>Beyond the 'bifurcation of nature'</i>	159
Conclusion	163

Conclusion	166
<i>The post-politics of environmental sustainability</i>	166
<i>Imperceptible politics</i>	168
<i>Re-thinking the politics of sustainability</i>	170
<i>Conclusion</i>	174
 Appendix A. Castletownbere fishing port	 177
Appendix B. State institutions	178
Appendix C. Respondents	180
Appendix D. Fishing sources	181
Appendix E. Structure of the Irish fishing industry	182
 Bibliography	 186

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This thesis is dedicated to my mother, Jeanette, and my uncle Peter.

Summary

This thesis looks at the current transformations in the Irish and European fisheries as a way of critically examining the politics of environmental sustainability. It begins by analysing how the crisis of the fisheries is being framed within fisheries management and the new forms of power this gives rise to. Drawing on interviews and fieldwork carried out in a commercial fishing port in Ireland I describe and analyse how fishermen and the marine environment are being enrolled within a particular narrative of sustainability and how they escape it through everyday, continuous experience.

I begin by outlining how the crisis in the fisheries is being framed in biological terms and how this generates new forms of power over the marine environment. Analysing this development through Foucault's concept of biopolitics I describe how fishermen are increasingly subject to new forms of policing within a discourse of 'responsibilisation'. The consequence of these transformations is the displacement of existing value and relations through the imposition of a bio-economic rationality.

At the same time the common goal of preserving fish stocks opens new spaces for participatory, inclusive governance. Fishermen are identified as valuable 'stakeholders' engaging with state and non-state actors in order to reach mutually agreed and effective solutions to local problems. I argue that this represents the post-politics of environmental sustainability. The apparent absence of any single authority claiming to represent nature creates the impression that all that is needed is better governance in order to move towards a common, sustainable future. While there appears to be greater inclusion and participation these forms of consensus decision making close down the need for vital questions about the kind of sustainable natures we might want.

Seeking to move beyond this apparent impasse I develop an alternative concept of politics that does not begin from a world that is already constituted. Instead of thinking of politics as a process of mediation and inclusion of what already exists I argue that an alternative politics of sustainability begins from those subjectivities which are imperceptible within the emerging bio-economic consensus. While a true politics requires

the appearance of these subjectivities in moments of antagonism I look at how everyday, continuous experience escapes the identification of fishermen as individual, economic subjects exploiting a 'dumb' set of discrete, natural resources.

After outlining these critical terms I identify and analyse them in relation to two areas. Firstly, I look at efforts to implement community-managed access in the lobster fishery in Ireland as an example of the changing roles and representations of fishermen within devolved governance. Secondly, I look at recent efforts to cultivate and manage lobsters as an example of the changing relations between science, fishermen and the marine environment. Looking more closely at the experiences of fishermen I argue that the bio-economic rationale which underpins these projects obscures other subjectivities which materialise through ongoing encounters with people, places and things.

Introduction

Introduction

At a meeting of environmental NGOs in Dublin in June, 2011, the Minister for Agriculture, Food and the Marine, Simon Coveney, said that the management of the fisheries could not return to the past, to a time when many people made a living from the sea, when there were healthy fish stocks and abundant biodiversity. There was “no choice but to become a modern fishery adapted to global realities” (Coveney 2011).

The context for the talk was a week of events under the heading ‘Back to the Future’. Organised as part of a lobbying campaign for the reform of the European Common Fisheries Policy (CFP) the premise was to imagine a way beyond the current crisis, restoring the fisheries and fishing communities to a sustainable path. But how was this vision imagined? It was framed by two ‘realities’: the urgent need to preserve declining fish stocks and the growing global demand for resources. By 2025, the Minister cautioned, 70% of the world’s population would be living in cities. The only way to resolve this crisis was, on the one hand, to take ‘courageous decisions’ to limit fishing and, on the other, to develop new technologies for the development of offshore aquaculture.

This narrative is characteristic of how environmental sustainability is currently being framed. In response to depleting natural resources the natural world needs to be made subject to more stringent and effective management and policing (limiting fishing activity), while the growing demand for resources can be met through the advancement of technology (aquaculture). Neither of these responses addresses the assumptions which underlie the way we produce, consume and ultimately value the natural world. In place of one modern narrative of progress it appears that on the back of the ecological crises another one is emerging. Under the banners of ‘sustainability’ and ‘ecological modernisation’ ecological crises are now being carried along on a new vision of progress, not just as unsavoury ‘side effects’ to be accounted for but as a positive justification for the re-calibration of industrial economies and the sacrifices required to affect these

changes. This narrative does not attempt to open up possibilities for more just, equal and sustainable ecological commons but in fact closes these down through a discourse of scarcity and the unquestioned hegemony of the global market. To paraphrase Frederic Jameson we live in a time when the destruction of the world is easier to imagine than the end of capitalism.

My thesis came from an interest in critically analyzing the politics of environmental sustainability. The fisheries provided a site from which to do this. While the expansion of industrial scale fishing is correctly identified as a key cause of the current problems of over-exploitation such problems are understood as 'externalities' that can be managed and incorporated into a re-structured modernisation project. Initially my interest was concerned with the ways in which the problem of overfishing was being framed. I was interested in how this initial framing generated new ways of perceiving, valuing and governing the fisheries, specifically in terms of how this impacted on fishermen. My fieldwork took place in the second largest commercial fishing port in Ireland, Castletownbere (see appendix A).

As I describe in chapter one the initial months of my fieldwork were spent interviewing fisheries managers and scientists. The initial impetus for going to the 'field' was to see how governing rationalities were being realized 'on the ground'. At the same time however my fieldwork opened a different way of thinking about the politics of sustainability. I lived for fifteen months in Castletownbere. During that time I managed to go out to fishing a number of times. The experience of fishing was not reducible to an individual subject extracting resources from the 'dumb' natural world in which they operated. At the same time these fishermen were subjects whose experience of living in Castletownbere carried meaning and value which was hard to articulate. While these experiences were not easily or often articulated they materialized in different social and ecological relations. Observing and participating in the everyday lives of people suggested that there were experiences which went beyond the bio-economic rationality underlying fisheries management. It was the time spent at sea which provoked most strongly the need to re-think subjectivity as something which emerges as part of an unfolding, non-instrumental set of relations dispersed across people, places and things. Going to sea became the source of empirical data but equally a metaphor for the ways in which

experience in the world escapes stable representation, what Joseph Conrad described as the 'complex mysteriousness of the event'.

My thesis can be described in terms of an arc, moving from a critical analysis of new forms of power and exclusion in the fisheries, towards the ways in which everyday experience can be seen as a site for re-thinking alternatives beyond the dominant narrative of ecological modernisation. My thesis plots this arc through three ways of thinking about the politics of environmental sustainability. The first identifies how the urgency to preserve natural resources opens up a biopolitical rationality which justifies new forms of power and transformations within the fisheries. The second identifies how the need to preserve a 'common' environment creates a post-political consensus which reduces questions of sustainability to localized, technical problem solving. The third goes beyond these two critical frames to suggest a politics of sustainability attuned to the ways in which imperceptible, everyday experiences escape bio-economic narratives of human and non-human interaction.

The politics of sustainability

Chapter two provides a critical examination of the way the crisis in the fisheries is being framed as a crisis of production (the recognition that industrial capitalism is not environmentally sustainable) and a crisis of government (that regulating the fisheries directly will not lead to the necessary, 'fundamental' transformations required). 81% of fish stocks in European waters are estimated to be at unsustainable levels of production. At the same time the fishing fleet is estimated to be at 40% overcapacity. This imbalance of fishing effort to available resources is the consequence of the modernisation of the fishing fleet in line with a mode of production that sought to extract fish as efficiently as possible. While fish stocks have been regulated in the past through quotas this has proved ineffective as levels of non-compliance by the fishing industry have been high. A combination of mismanagement and depleting resources has led to sustained critiques and reflections on the future of the fisheries. The response to this problem has not just been a turn to market rationalization to correct the imbalance between capacity and supply, nor has it just been the imposition of tighter regulations on the fishing industry. There has been, and is ongoing, a more fundamental shift in the way that the fisheries are being

valued and governed.

The upcoming reform of the CFP has made it clear that there needs to be 'wholesale transformations' in the way the fisheries are managed (CEC 2008). The principle way in which this is now happening is through, what I call, the 'preservationist turn'. This describes how the preservation of fish stocks has become the priority of fisheries management. In the past fish stocks were seen principally as a resource that was exploited by fishermen. Over the past ten years there has been a shift as fish stocks come to be seen as a common resource to be managed for the benefit of 'all present and future generations'. The 're-structuring' of the fisheries has been framed by the 'urgent' need to preserve fish stocks and the health of the marine ecosystems.

I argue that these transformations can be understood through the frame of biopolitics first introduced by Michel Foucault in the 1970s. Taking his analysis of grain scarcity in the 18th c. as a point of departure I suggest that the discourse of scarcity and the 'necessity' of preserving the productivity of natural life has opened the space for new forms of power. Foucault described how biopolitics generates a form of government which does not seek to prescribe or govern directly but rather seeks to foster and encourage the production of life through a new knowledge of political economy. While this liberal form of government moved away from any external source of authority it replaced it with a different set of internal limitations: the 'nature of things' understood as the production and exchange of goods within a free market.

I argue that the re-structuring of the fisheries stems from a single conception of life/ nature understood in terms of biological productivity. Significantly the 'nature' that has been employed within the 're-structuring' of the fisheries is not a 'nature' defined by scientists but rather the 'natural' productivity of life. The health of fish stocks, and of the marine environment in general, is understood to be a fundamental requirement for a viable fishing industry but also a 'common good', framed in the discourse of sustainability as the needs and interests of 'all present and future generations' (UNWCED 1987).

The priority of preserving the biological health of fish stocks has enabled new forms of power and policing to be extended over the fisheries. This corresponds to the emergence of new liberal and illiberal forms of government in the 18th century justified through the political economy of biopolitics. The janus-face of liberal government is

emerging in the fisheries where strong policing and regulation is paralleled by new forms of environmental 'responsibilisation' operating through the individual fisherman. Fishermen are being required to demonstrate that they are fishing responsibly through, what I call, 'technologies of representation', which enable fishermen to 'differentiate' themselves as environmental 'stewards of the sea'. These technologies of representation overlap with shifts in economic production as value is displaced from material, supply-related activities, such as fishing, to immaterial, market related activities. Fishermen are thus caught between new forms of policing of the marine environment as well as economic dynamics which displace value from the production of natural resources to their processing, marketing and distribution. I argue that this amounts to a new form of enclosure as certain activities, values, relations are displaced by others.

The 'preservationist turn', as I call it, is not attributable to one single agency or institution. In the fisheries this has been illustrated by popular media campaigns around the issue of overfishing.¹ The problem is that without any radical dimension the question 'how can we stop overfishing?' can lead to a populist urgency channelled into a call for more policing of 'nature' and of human interaction with it. This populist discourse is at the heart of the politics of sustainable development. While the new era of political and social awareness and concern seem to promise a new era of democratic stewardship the reality has been the onset of 'new enclosures' justified on the basis of limited resources and over-exploitation, echoing Garret Hardin's infamous line that 'injustice is preferable to ruin'. The premise of this biopolitical turn is that scarcity is caused by inefficiencies in how we manage nature and the economy, rather than scarcity being a moment to ask "the politically sensitive, but vital, question as to what kind of socio-environmental arrangements do we wish to produce, how can this be achieved, and what sort of natures do we wish to inhabit" (Swyngedouw 2007 : 23).

In chapter three I look at how the 'preservationist turn' closes down the space for such vital questions. In place of debates over what kind of sustainable worlds we want there is an emphasis on consensual, technical responses to environmental problems. The need to preserve the 'common' marine environment becomes the basis for a new space of

¹ The television chef Hugh Fearnley-Whittingstall recently led a high-profile television and online campaign to ban the discarding of fish. It led to a response from the EU Minister with responsibility for the fisheries, Maria Damanaki, as well as responses from representatives of the fishing industry.

governance within which there is an understanding that the best way towards achieving sustainable development is through improved governance and communication. In the fisheries this is exemplified in the new Integrated Maritime Policy (IMP). The environmental pillar of the IMP has called for 'healthy' marine ecosystems by 2015. While this is understood as a common goal the means by which it is achieved are to be decided through consensual decision-making between an array of actors. This describes a new distribution between a 'common' environment in need of preservation and the many partial stakeholders who contribute towards this goal through localised problem solving.

At the same time as the preservation of the marine ecosystems becomes the overarching goal for fisheries management there is a shift away from the 'traditional', top-down management of the fisheries. Rather than the fisheries being a discrete concern of the Irish state and EU informed by scientific data the fisheries are now part of a more ambiguous governance regime. On one hand non-state actors such as NGOs and private corporations are involved in the development of transnational accreditation schemes. On the other fishermen are incorporated as actors with roles and responsibilities in the management of their fisheries. While this is presented as more inclusive and participatory the roles which fishermen occupy are determined by the initial framing of the problem as one of biological sustainability. Through devolved governance fishermen are increasingly responsible for ensuring the health of fish stocks, while at the same time engaging with ambiguous networks of state and non-state actors in order to secure accreditation. The problem with this approach is that the terms of the debate have already been decided. Fishermen are included on the basis of the 'stakes' they hold as productive actors within a 'common' marine environment and a 'common' global economy. The outcome is that sustainability of the fisheries is reduced to technical, localized problem solving, while at the same time there is little space to debate alternative possibilities. The only questions that are asked are how the fisheries can be better regulated and policed, and how 'responsible' fishermen can gain accreditation in order to gain visibility within niche markets.

A key characteristic of this governance approach is that no single authority dictates the direction in which sustainable development should proceed. While all agree that drastic action must be taken to 'preserve' the marine environment the means by which this

is to be achieved is open to discussion, debate and negotiation between various stakeholders identified as possessing different capacities and roles within the environment. Sustainability becomes a process of continuous negotiation between stakeholders defined through a common problem. I describe this as the post-political consensus on sustainable development. This situation makes it hard to imagine how debates over alternative ecological commons could appear. This is partly a consequence of the urgency of the 'preservationist turn' which channels attention into problem-solving as well as the apparent absence of any single authority making a claim on the sustainable future. This apparent absence supposes that sustainability can be brought about through improved dialogue and governance of existing relations.

I argue that the post-politics of environmental sustainability can be understood within a broader body of critical political thought which has emerged over the last twenty years. The key characteristic of this political thought is the belief that in the wake of important epistemological critiques a new political process would emerge capable of building a 'good, common world'. Not only has this not emerged but radical alternatives to ecological modernisation have become less imaginable. An understanding of politics which emphasizes inclusion and consensus ignores that there is always a prescription on what is included and what is not.

An alternative way of thinking about politics provides a way of imagining a way out of the impasse signalled by the consensual politics of ecological modernisation. In chapter three I put forward a different understanding of politics which does not begin from a world already constituted but from the appearance of a new political subject who has no place within the existing consensus on sustainability. Politics in this sense is not reducible to a process of inclusion or mediation but rather describes the moment when a particular community refuses to occupy a particular role or place within a pre-defined common world. This understanding of politics thus requires a form of prescription on the world which is articulated from a particular point not from an appeal to any external foundation. I link this to a politics of sustainability by arguing that the possibility for an alternative socio-ecological trajectory becomes imaginable when a particular subject rejects the role and function they have been prescribed within the dominant narrative of ecological modernisation. In this way a politics of sustainability does not refer to a debate over how

resources should be used but rather what past, present and future such resources refer to and who is capable of speaking for them.

While the appearance of a new political subject is by its definition impossible to predict I move beyond the idea of a spectacular politics to look at the ways in which everyday, continuous experience disrupts dominant representations. In terms of the bio-economic rationale which underpins emerging forms of control over socio-ecological relations the non-instrumental, material unfolding of experience through the world rather than outside it opens up a different understanding of subjectivity and the natural world. While these escapes are imperceptible and inarticulate they generate different social and ecological relations and thus different ways of being with the world. The relationship between continuous experience and political subjectivity is not causal or linear but an understanding of how everyday experience generates new collectives outside of governing regimes of visibility becomes significant when trying to imagine the possibility of alternative socio-ecological trajectories.

The commons, nature and experience

Chapters two and three draw on policy strategy and theory to outline three ways of thinking about the politics of sustainability. After this critical ground clearing the following two chapters of the thesis offer a closer examination of two important areas emerging within fisheries management. In chapter four I critically examine the development of community managed access rights as a new model of resource management. Emerging from academic work in resource management and economics this describes the growing support within fisheries management for forms of co-managed or community managed fisheries. In chapter five I critically examine, what I call, the 'new empiricism'. Stemming from sustained critiques within fisheries management and academic literature this describes the changing role of science within fisheries management. Rather than prescribing how the natural world should be managed I show how science has now become just 'one voice at the table'.

In chapter four I look at the question of the commons. I show how current debates over access rights to the fisheries overlap with a critical body of academic literature. The

question focuses on the 'problem' of open access, a situation where there are no formal or informal rules governing access to and use of a common resource. In the past private resource rights or state management were the two principle policy options for government. A third option has emerged since the 1980s, taking its point of departure from research into formal and informal rights of access to community owned resources. This third option has now become an important policy tool for resource management. It focuses on developing adaptive forms of resource management based on negotiated access rights which reflect and include the needs and interests of the local resource users.

In fisheries management the question of regulating access to the fisheries resource has been a recurrent theme earning it the title of 'the fisherman's problem'. As the need to preserve and manage fish stocks intensifies the question has become central to policy-makers. While a form of individual property rights seems to be the future for the larger-scale fisheries in the EU a form of community-managed resource management has been identified as being more appropriate for the smaller-scale, inshore fisheries, where fishing remains relatively small-scale and community-based. In this chapter I look at a government initiative to institute community managed access to the lobster fishery in Ireland. Through interviews with a number of fisheries managers and scientists involved in the initiative I illustrate how such approaches to resource management are presented in terms of 'enabling' local communities to govern themselves. This corresponds to the shift away from the top-down, prescriptive institutional arrangements of the past.

However, while such initiatives aim to be neutral and 'enabling' I argue that the institutionalization of community managed resources always carries assumptions about the resource users and the resources they exploit. There are two elements of the community managed approach which reflect the new tendencies in environmental sustainability. Firstly, the emphasis on the local obscures the external context within which local fishermen are acting. Rather than beginning from the local in order to question the dynamics of the global market and the requirements of European directives the community management model is understood as a vehicle for enabling local fishermen to adapt to these pressures. Secondly, while the community-managed approach seeks to go beyond neoliberal assumptions about individual human behaviour, the basis for bringing in regulation remains the assumption that fishermen are economic subjects exploiting a

'dumb' natural resource. This is made explicit in the initial framing of the problem as a *lack* of regulation over resource users. A new binary is thus created. In place of the 'anarchic' commons and 'regulated' private or state ownership the revised position distinguishes between an 'anarchic' situation of open access and 'regulated' community access.

In contrast, I suggest a closer look at the 'unregulated' situation of open access allows a different reading of the 'commons'. While there is no doubt that many fishermen operate within the economic rationality that has led to the depletion of fish stocks there are other elements involved in their experience which cannot be reduced to this particular representation. To begin with fishing continues to be compelled by seasons, weather, the uncontrolled movements of fish beneath the waves. The activity is not quantified in terms of time; the 'natural' resource which they 'extract' is not 'silent and passive'; the ecological collective of which they are a part is not predictable or pre-determined. Drawing on my fieldwork I argue that fishermen cannot always act as rational individuals projecting their plans onto a linear future. Acting responsively to the world rather than instrumentally opens up different and changing social and ecological relations. This contrasts with the idea of an *a priori* subject manipulating an objective world.

Rather than understanding the 'commons' as a 'thing', as a particular community exploiting a particular resource, I argue that it can be described as a more open, collective form of, what I call, 'commoning'. Through continuous activity the world unfolds through different, material encounters. I argue that rather than understanding the fisherman's autonomy in terms of a liberal, economic subjectivity it is possible to view it, paradoxically, in terms of the myriad connections and relations which he maintains with the natural and social worlds in which he lives and works. This does not provide a solution to the problem of open access but it does suggest a different way of looking at sustainability: not in terms of limiting or regulating autonomy but in terms of extending it through more immediate, material relations.

In chapter five I look at how similar tendencies are evident in the changing role of science within fisheries management. I outline how questions around the role and efficacy of scientific knowledge in fisheries management overlap with a broader, historical critique of science and its response to the increasing complexity and uncertainty of ecological

crises. There are two common problems identified. Firstly, the environment is understood to be highly unpredictable and beyond any single, stable representation offered by traditional scientific knowledge. Rather than try to produce an accurate representation of the natural world as a starting point for management, efforts have now moved towards working 'on the ground' in order to achieve tangible results. Secondly, the scale of the problems, and the problems generated by conflict between resource users and scientific experts, have shifted focus onto generating consensus around common problems rather than imposing a particular world view. These two shifts can be described as a 'new empiricism'. Rather than imposing a representation of an objective Nature, scientists become 'one voice around the table' working towards achieving effective, mutually agreed responses to a pre-defined problem.

Within the fisheries these debates are highlighted by the inability of science to provide accurate data about a complex and unpredictable marine environment as well as a realization that scientific knowledge is only effective if it 'works' on the ground. In this chapter I look at the example of the lobster fishery, this time in terms of the way natural and social actors are included as participants in the generation of knowledge for the management of the fishery. The key shift is away from any scientific 'truth' towards more effective ways of preserving and managing the biological productivity of fish stocks. This 'new empiricism' appears to go beyond any epistemological claims over the natural world. However, this single claim is replaced by a bio-economic understanding of nature which opens up the space for even more extensive control over natural life.

As in the case of community-managed resources the shift away from a top-down approach to a more localized, adaptive form of consensus- building ignores that such negotiations are not 'neutral' or 'natural'. Framing 'nature' in terms of biological and economic productivity enables the extension of control not through imposition but through the management of the effective realities that exist in the environment. The power of this consensus is that natural and social life are identified as nothing more than productive actors within a bio-economic network. While the 'new empiricism' of post-normal science appears to by-pass the question of objectivity and the imposition of *a priori* categories onto the natural world it manages to impose an even more totalizing epistemological control by framing the natural world as 'naturally' productive.

In contrast, I argue that nature is not experienced as a single, productive reserve in need of management. Extending the concept of continuous experience I describe how the activity of fishing does not allow for a prior knowledge of events. I argue that the fisherman's relationship with the sea is not understandable in terms of epistemology. In the process of fishing events unfold through a convergence of different elements. The fisherman is not the only agent in this world. The agency of the wind, the fish, the boat are all parts of a 'lively' ecology. Nature emerges through different ways of 'being-with' the world. This differs with an ecological sensibility which begins from a desire to 'preserve' nature as though it existed *a priori*, on a plane outside of experience. Rather than affixing a name to a single nature and policing it, a different way of thinking about sustainability is to perceive natures as constantly enacted through ways of doing.

Chapter One

From land to sea : representation and experience

I listen to fellows saying here's good stuff for a novel
or it might be worked up into a play.
I say there's no dramatist living can put old Mrs Gabrielle Giovannitti into a play
with that
kindling wood piled on top of her head coming
along Peoria Street nine o'clock in the morning.

- Carl Sandburg, 'Onion Days', Chicago Poems (1915)²

Introduction

In this chapter I trace an important methodological and theoretical shift which emerged during the course of my research. This shift concerns the way the world can be read in terms of power or in terms of escape. My initial orientation was towards the former as I sought to describe and examine how the marine environment and fishermen were being represented and interpolated within fisheries management. As my fieldwork went on I became more aware of those experiences which could not easily be represented within existing representations. I was interested in how experience came to be dispersed across and through the material world and how such experience 'suspended' normal roles and relations including those which exist between a 'researcher' and a 'subject'.

When I arrived in Castletownbere my research was principally concerned with the way transformations in the fisheries were taking place; the way the local was being subjected to the discourse of environmental sustainability. The fisheries exist in geographically, socially and historically marginal places (MacLaughlin 2010). This distance has been identified within fisheries management as a problem which needs to be overcome. The crisis in the fisheries was not just being framed as a crisis of production but as a crisis of government. I was interested in how new forms of governance were

² Quoted in (Linebaugh 2008 : 47).

being realized on the ground, how fishermen were responding and what the consequences were for fishing communities. In section one I describe how my initial focus was on representatives of the state, scientists, fisheries managers and civil servants. It seemed more productive and sophisticated to attempt to trace the ways in which the 'local' was being represented within and through emerging discourses and practices of government. This critical position made me, initially at least, un-attuned to the possibility of 'local' voices actually existing.

Reinforcing this initial research approach was the way in which I, as a researcher, was being articulated by my 'colleagues' both in the field and in the university. My role as a social researcher was understood to be valuable in terms of mediating between fishermen and other actors, such as scientists. In other words there was an implicit assumption that I had a role to play in 'bridging the gap' between fishermen and government. While I had entered the field aware of the critical issues around the question of representation I felt even more sensitive in the context of a governing rationale which sought to render visible fishermen's activities.

However, as time went on I became increasingly frustrated, and uncomfortable, with the limitations of my critical approach. I was uncomfortable with the relative ease with which I was able to meet with and talk to fisheries managers, scientists and civil servants (see appendices B and C) while at the same time I was having such difficulty meeting with fishermen. While I was 'pursuing' power in the form of the words, sites and technologies of government I was also living in Castletownbere, a small town on the Beara peninsula. After several months I managed to get out on a fishing boat (see appendix D). This marked a turning point in my research. Going out on the boats did not just mark a departure in terms of encountering fishermen but it also marked a change in the way I thought about subjectivity and experience.

In section two I describe how I came to understand experience as something which was not coherent, representable or linear. Initially my concern with identifying a subject for research was that it would generate such a representative figure, a 'fisherman', understood within various epistemological tropes such as 'local', 'situated', 'embodied'. As I went out on the boats, and as I continued to live and work in Castletownbere, I was met with experiences which were impossible to identify or pin down. These experiences did

not 'belong' to bounded individuals outside of the material world in which they existed on an everyday, ongoing basis. From an initial inquiry into the ways in which subjects were enrolled into networks of meaning and value I was finding, through my participation in a place, through time, that there were other subjectivities, other experiences, which existed outside such discursive representation. These were not exceptional experiences but rather the often banal, ordinary everyday experiences that were as much embodied as they were articulated.

Understanding experience as something that took place in and through the material world suggested that it was capable of escaping representational logic. It also shifted the question of 'difference' from epistemology to ontology, or the way we come to be, and become, in relation to the world around us, human and non-human. This understanding of experience is irreducible to a particular 'perspective' that I might 'own', as much as it evades the increasingly normative modes of environmental engagement being propagated by the state and market. In section three I use the concept of 'continuous experience' to suggest how distinctions of 'home' and 'field', 'researcher' and 'subject' become questionable in the light of common or shared experience.

In pursuit of power

In this section I describe how my initial focus was on sites and technologies of power. This stemmed from an interest in critical social theory as a way of approaching the governance of the fisheries. This theory presents power not as an external authority imposed on subjects but rather as contested and overlapping rationalities which are inscribed at the level of the subject through different technologies and networks of value. This appeared to correspond with reflections within fisheries management and science which emphasized the need for policy and knowledge to be effective 'on the ground.'

The local as global

One of the common themes that emerged in the policy documents at both Irish and European levels of government was the new role that fishermen would be expected to play in the future. In the past fishermen have been 'beyond the state'. They have literally been outside the gaze of power, operating in the open seas, and able to avoid what regulations

have existed through their peripheral location and the absence of any policing. This was commonly expressed in policy reviews as 'non-compliance', a trait borne of a 'lack' of regulation, control, security, representation. The lack of compliance has provoked the European Union to call for a new 'culture of compliance' as the only way of achieving a sustainable fishing industry.

Without active collaboration between them [industry and managers], even the best-drafted regulations founded on the best-researched science, and supported by carefully targeted subsidies can achieve little. Policy is only as good as its implementation. And in the final analysis, it is the people who work in the fishery who have to make that policy a reality, *by adopting it fully in their daily practice* (my italics) (CEC 2008 : 9).

This has resulted in an emerging system of governance in which fishermen are required to demonstrate that they are fishing responsibly. This shift of power 'down' towards individual fishermen marks a radical transformation from the past when fishermen were silent actors in the management of the fisheries.

I was drawn to critical social theory which analyzed power not in terms of institutions or external authority but in terms of relations and processes of subjectification.³ This appeared to fit the shift in fisheries policy discourse from forms of top-down prescriptive control to more devolved, participatory governance. While studies on power and subjects in contemporary neoliberal societies have been popular over recent years these have mostly been limited to the fields of health, sexuality and labour. I was interested in how a similar critical analysis and methodology might apply in the context of the environment and environmental sustainability where individual fishermen are being articulated as 'responsible' subjects with various roles to perform within overlapping regimes of knowledge and control. While the 'inclusion' of fishermen as active participants in the management of the fisheries is presented as positive and unproblematic, more critical accounts turn to how these subjective positions are generated, how certain ways of acting become 'visible' or relevant within pre-determined rationalities, in this case the

³ There were two bodies of research which particularly influenced my research. The first was governmentality studies, a broad name for research that traces a line directly from Foucault's later work on subjectivity and power (Barry *et al.* 1996; Brockling *et al.* 2010; Foucault 2008; Rose and Miller 1992). The second was Actor Network Theory which describes the generation of knowledge and power through networks (Callon 1986; Latour 2005, 1993, 1987; Law and Hassard 1999).

'urgency' of maintaining the productivity of marine life.⁴ The recalcitrance of fishermen, and more generally the sea, to previous regimes of control, whether scientific knowledge of the natural world or governmental practices and regulation over the social world, suggested an interesting site of inquiry.

This critical orientation towards subjectivity as generated through and in relations of power shifted my attention away from the singular or specific experiences of the fishermen themselves, 'their' views, understandings, knowledge, towards the ways in which these experiences were being modulated through new problematizations, the opening up new possibilities and the closing of others.⁵ Rather than working to 'discover' the fisherman as an individual subject 'owning' a particular experience or position, as my role was frequently articulated, a critical reading sought to discover the ways in which these subject positions were themselves being generated through new governance relations (See Amit 2000).

I wanted to see how certain governing ideas materialised in the world, through the forming of new relations and networks, and how these displaced existing or alternative relations and knowledge. Aihwa Ong and Stephen J. Collier recognize the need for ethnography to find ways of adapting to the cross-cutting connections generated by global dynamics. These 'global assemblages' create a situation in which the "forms and values of individual and collective existence are problematised or at stake, in the sense that they are subject to technological, political, and ethical reflection and intervention" (Ong and Collier 2005 : 4). While describing these assemblages as 'global' they also emphasize the way in which they materialize through contested and contingent local contexts. Rather than grand diagnoses these global assemblages thus require an ethnographic mapping which concentrates on 'the little mutations'. A smaller scale means such work sacrifices something of the general, a fact that Ong and Collier acknowledge, but they do so as part

⁴ Agrawal writes, "[p]olicies aiming at greater decentralisation and participation are about new technologies of government. To be successful, they must redefine political relations, reconfigure institutional arrangements, and transform environmental subjectivities" (Agrawal 2005 : 7).

⁵ Mariam Fraser writes: "This shift, from explaining daily experiences, as Mills describes it, to explaining the knowledges that produce experiences, does not in itself require the empirical baby to be thrown out with the experiential bathwater. On the contrary, empirical research into the conditions and effects of knowledge production – and in particular, notably, the production of the subject (who has the experience of 'having' experience but is 'in fact' constituted by it) – has proved to have considerable mileage in sociology" (Fraser 2009 : 68).

of an explicit commitment to 'a form of inquiry that stays close to the ground.' In my initial research approach this was how I envisaged my relationship with Castletownbere: a site for the exploration of broader, cross-cutting (i.e. global) tendencies. The local was thus a place in which the global was enacted, in this case the dominant understanding of the natural world as an external realm in need of preservation.

The sheer complexity and variety of actors, or actants, which appeared to be involved in these emerging transformations, suggested an approach to research that was not limited or fixed by any pre-determined boundaries, whether spatial, institutional or disciplinary (Martin 1997). Fisheries governance was by its nature multi-scaled. European, national and regional/ local levels of government were being pulled together. At the same time novel fusions of state and non-state actors (NGOs, multi-national corporations, local business) questioned familiar boundaries of private, public and civil society.

In the first three months I interviewed civil servants working in the Department of the Marine based in Clonakilty; National Parks and Wildlife Service in Glengarriff; researchers from the Beaufort project in Haulbowline, Cork; marine scientists in the Marine Institute in Galway; social scientists in the University of Galway; BIM development officers working on the ground in Castletownbere as well as in Dublin; representatives from the Castletownbere cooperative; the owner of a local seafood company; representatives from the Sea Fisheries Protection Authority and from the South & West Fisheries Producers Organisation based in Castletownbere.

I carried out long unstructured interviews with informants. I usually travelled to their offices or places of work. Sometimes these interviews were arranged through institutional lines of communication and were relatively formal. In BIM headquarters, for example, it was clear that time had been set aside for several employees to attend, to present and discuss two particular issue which I had raised in my email of inquiry. Other interviews, mainly those that took place in Castletownbere, were organized through informal contacts. While the people involved may have been professionally attached to the fisheries they passed on details to me of contacts who worked in other offices or agencies.

I began the interviews with questions about the individual, their historical involvement with the fisheries, their opinions on it, the problems they identified, their aspirations. I would introduce my research as an inquiry into the fisheries, particularly into

the conflicts or tensions between different actors. This description usually had the effect of encouraging them into speaking about the difficulties they had faced, the bureaucratic problems, the lack of political will, the lack of resources. In some cases there was a sense in which they were 'confiding' certain details to me. Nearly all of them prefaced their interview with a demand that they not be quoted. This recurred throughout my fieldwork and with the result that all nearly all my respondents have been given pseudonyms (see appendix C).

Common sense

In the first several months of my fieldwork the 'missionaries and colonial officers' were the only contacts that I met in Castletownbere. This was partly because I had been put in contact with a man who lived in the area by my supervisor. He described himself as a 'converted fisherman' and gave me the names and contact details of some of the local development officers with whom he worked closely. I met and spoke with the local officers. From there I was passed 'sideways' to more researcher/ managers. In practical or logistical terms the people who were employed in areas of management or research were easily locatable - they had offices on the quays, business cards, telephone numbers and email addresses on official websites. Besides this form of technology there was an informal community of 'experts' who knew each other from meetings, conferences and word of mouth. In all cases they were happy to talk with me when I told them I was researching the fisheries. I was on 'their' side. As I drove across the country I was tracing the lines of a disparate network engaged in common labour, what is more I was being implicated in this apparatus of management.

There was a certain empathy and positivity towards my presence amongst the 'expert' community. My research, as I described it to people, was broadly concerned with conflicts over the place and value of the marine resource. People I encountered, and the texts I read, expressed similar concerns: how to include and satisfy the different stakeholders, natural and social, in a common, productive institutional framework. Entering into a situation where there were social, epistemological and ethical values at stake meant there was an obvious role for me as a social researcher. Even amongst my academic peers there was an understanding, with or without my corroboration, that my

work with fishermen was an inquiry into their 'different' forms of knowledge (embodied, immersed, practical, non-technological) with a critical dimension being the making visible of this knowledge as a challenge to the technological, bureaucratic systems of state control operating on the fisheries. Trying to sum up my research for me after I had briefly explained what I was doing a scientist friend nodded and recited the rhyme: 'from the sea to the college there speak different kinds of knowledge'. He agreed that there were different forms of knowledge and that it was vital that these be taken into account.

It became apparent that qualitative, or 'cultural', approaches to the fisheries 'problem' was not my 'intellectual' prerogative. I found a project being funded by the EU into the 'tacit knowledge' of fishermen, organized by a political scientist in Galway University. I found EU and Irish fisheries policy seeking to foster a 'culture of compliance' through the incorporation of fishermen into decision-making. I found industry-science partnerships that sought to combine the most up to date scientific methods with the skills and knowledge of local fishermen. Scientists I spoke to were open about the limitations of their quantitative data and methodology. Amongst the 'expert' community I spoke to fishermen were valued in terms of their 'unique' relationship with the sea. I did not meet technocrats or scientists unwilling to accept that there were different ways of knowing the world. On the contrary I was met with fluent and honest accounts of a complex and diverse situation that required adaptable, innovative and cooperative responses. It appeared, as Marcus writes, that "[t]he ethnographer is no longer a stranger, but a figure whose presence is anticipated" (Marcus 2007 : 1142).

My work was understood as valuable and interesting by many of those I spoke to in the 'research community'. I was interpreted as having a potentially 'original' insight into the terrain in which other agents were already positioned. Those who were involved in the management of the fisheries were interested in what an 'outsider with no baggage' would make of such a complicated situation. I was not a scientist, a politician, a manager or a local. The suggestion was I might be able to achieve a little 'objectivity'. As another contact, a researcher and manager, told me, I would be able to pass between the different actors opening up 'new avenues of communication, because it all comes down to communication'. My role was to be a 'neutral' observer passing between camps while also 'softening' these differences by opening up channels of communication and understanding

that could render fishermen more amenable to the 're-structuring' of the fisheries. As an ethnographer my presence at once reiterated categories of difference, while also being invested with the task of confirming that we weren't so different after all.

Being positioned as part of the response to the problems of the fisheries I quickly became part of a circulation of information and contacts relating to those problems. This network was not continuous and regular but scattered and viral, especially when considering the use of the internet. In one case I was sent an attachment to a Harvard Business School paper on tactics of persuasion as an example of the kind of methods being thought about in relation to mentoring fishermen in the environmental management scheme. I was given links to the Australian department of the environment website. I had books photocopied for me. I had power point presentations from official conferences sent to me with notes. I was recommended to watch certain documentaries. I was told about significant researchers in the field, articles in newspapers, upcoming symposiums and meetings. These links relayed disparate sources of information; they established channels of communication between disparate actors, places, ideas and institutions even as they referred to a set of common problems.

One contact, a scientist and development officer in Castletownbere, helped me print off a chapter from one of her biology books. When we came to the bibliography I told her she didn't need to print off all the references. "Don't worry, I know what it's like when you need to footnote and you don't have that one reference you thought you wouldn't need" (Field note 02/02/09). A little later on she told me that if I found it hard to 'truth' the fishermen I could come back and she'd tell me 'everything I needed to know'. It was in moments like these that our supposed bond as 'researchers' was forged.

Marcus and Holmes warn of the 'threat of seduction', referring I imagine to these sorts of occasions of reinforcement, of convergence. They refer to 'shared affinities' with their 'expert subjects', who they term 'counterparts'. They go so far as to admit that "[i]t is perhaps disturbing to think that we are more like some managers of capitalism or some politicians than we would like to admit" (Holmes and Marcus 2005 : 251). As 'counterparts' financiers and researchers supposedly share a common 'language of intention'. Yet, Marcus and Holmes seem to reiterate a distinction between 'us' and 'them' even as they speak of the common 'global symptom'. As 'counterparts' there is a

commonality presumed to endure on the basis of a common distance from the world - the activity of reflection (whether as financiers, scientists or academics). This was the role I was being given but as time went on I felt increasingly outside and critical of the 'mutually interested concerns and projects' through which my own work was being understood.

The problem with power

In *Reassembling the Social*, Bruno Latour suggests that the acronym ANT (Actor Network Theory) fits perfectly the role of the social researcher: "blind, myopic, workaholic, trail-sniffing, and collective traveller" (Latour 2005 : 9). This corresponds with the 'grounded' approach advocated within governmentality studies. As part of the same intellectual movement away from 'crude structuralism' both employ a method that has been described as 'topological'. Instead of joining points through theoretical leaps the job of the researcher was to travel 'down into the valleys and up into the hills', tracing the movement of actors, discourses, representations through their messy negotiations with the world.

The problem, as I came to realize through my fieldwork and reading, is that often the only ground being covered is that which has already been disclosed by the rationality being critiqued (See Harvey 1990). Tracing the visible means tracing that which is representable within certain discursive regimes. Documenting and describing these regimes and the way they modify and control subjects are important but it doesn't offer any way beyond them, it doesn't account for different subjectivities which have no milieu or context within which to resonate.⁶ While I wanted to avoid 'fixing' a research subject, and to problematise this very notion, I found myself performing the reverse but ultimately similar task of 'fixing' the relations of power that sought to generate subjects (See Murray Li 2005).

In effect the main actor in the world, the world perceived and represented by the fieldworker, is considered to be power itself. While this is understood to be a dispersed and contested set of relations rather than anything established, the fact is that most critical

⁶ Similarly, Haraway criticizes the method of 'science-in-action', of 'following' the production of scientific knowledge and networks, as akin to miming, producing a critique which is no different from that which is critiqued, and thus being unable to go beyond it (Haraway 1988).

social research ends up pursuing the actions of those who initiate situations, those who pose the problems and render the world amenable through various mediating devices: the scientists, civil servants, administrators, policy makers. The only place for subjects in these accounts is the way in which they resist such processes, or the ways in which they are enrolled. Their role is reduced to either assenting or dissenting from the assemblage generated by the scientists.⁷

Subjects do not appear to have experiences except in so far as they relate to forms of power. Experience is deprived of its richness in favor of an account of those (significant and often negative) processes of intervention or modulation produced by state or economic rationalities. There is no disclosing of the ways in which people involved in ongoing and lively relations with others and the worlds around them might refuse representations, not simply through formal or explicit resistance, but through the performance of existing and emerging subjectivities that engage with the world in different ways.

Rather than understanding difference as something real, material and potential, it was, in my critical gaze, always discursive, framed by some relations of power that needed to be articulated. As C. Wright Mills suggested over fifty years ago: “[i]t is the imagination, of course that sets off the social scientist from the mere technician . . . Perhaps he [the technician] is too well-trained . . . Since one can be trained only in what is already known, training sometimes incapacitates one from learning new ways” (Mills 2000 : 211-12). My feeling is that I was too well-trained in a particular theoretical understanding. While it assumed openness it was trained, perceptually, to a certain reading of events that reproduced a new determinism. Such an approach assumed the world in which I was living, inhabiting, to be already and always subsumed within power. But the possibilities of something else existing, of different relations and experiences that were incommensurate with this reading were becoming more and more evident to me as my fieldwork went on.

⁷ In Michel Callon's study of 'translation' in a scallop fishery in St. Brieuc Bay, for example, power to construct reality rests with the three researchers. The role of the scallops and the fishermen is seen to be equivalent: they can either assent or dissent. In other words the world is traced from the point of view of power (Callon 1986).

Going to sea: beyond representation

In this section I describe how as my fieldwork went on I became more attentive to the ways in which the experiences of the fishermen I spoke to and worked with went beyond any coherent representation. This applies to multiple representations which shared a common sense of fishermen as bounded, rational individuals interacting with a 'dumb' natural resource. Whether articulated as a self-interested, economic subject, a responsible 'steward' of the environment, a 'situated' actor with local knowledge, these all posit an individual who experiences the world in the first-person. In contrast I encountered experiences which were dispersed across places, people and things. These experiences were specific to place without being 'authentic' or even consistent. They were not understandable in terms of 'global assemblages' or power. Papadopoulos and Stephenson use the concept 'continuous experience' to describe the ways in which the flow of experience is never fully representable or visible within a given realm of perception. Attuning to the ways in which experience materializes rather than the ways in which it is represented meant moving away from a concern with discursive regimes.

Re-thinking subjectivity

While there are various interpretations of how subjectivity and experience emerge in structural and post-structural accounts the common understanding is that the subject is nothing more than an epi-phenomenon, 'the outcome of a complex constellation of textual, material, institutional, historical factors' (Blackman *et al.* 2008). Moving beyond the humanistic appreciation of the human subject at the centre of the universe these critiques end up dissolving subjectivity into a variety of generative models, whether culture, *habitus*, assemblage or apparatus. Experience is considered as though it always operated in 'ensnared spaces'.

In this, governmentality theory is contradictory: it suggests that experience is discursively constituted, but it critiques the attempt to research experience on the basis that it can only invoke experience as fixed, a given. The cost of jettisoning a close examination of the particulars of subjectification (researching lived experience is one way of doing this) is to deter engagement with the problem of alternative modes of political engagement (Stephenson 2003 : 141).

As my time in Castletownbere went on I was increasingly aware of the absence of the 'weighty' experience which I was encountering. Such experience was more palpable than it was articulable.⁸ This coincided with my going out to sea for the first time. It took several months before I began going out on boats, mostly the small, inshore boats that go out for a day at a time catching crab, prawns and lobsters (see appendix E). The moment of going out to sea opened up a different orientation in my research. Fishermen were not just individuals exploiting a discrete resource. They were people with complex social and ecological relations dispersed across places, people and things. It emerged that here was a different value to ethnography: not the tracing of global assemblages but encounters with rich, material experience not as a coherent position within a sensible framework but as messy, incoherent and incomplete.

The question which I was led to, and only lately, and thus one that remains unreconciled, was how to think about and articulate the many different, rich and ongoing experiences I encountered during my time living in Castletownbere. How to account for these experiences while at the same time avoiding their foreclosure as particular types of experience, as either 'local' or 'authentic'? This did not just involve a methodological turn but a theoretical one: it meant trying to find a way to think about subjectivity, and the subject of my research, as something more than a stable, identifiable community or individual, but at the same time irreducible to an existing milieu. This line of questioning led me to the concept of *continuous experience*.

Continuous experience

While critical accounts of power tend to collapse subjectivity into its visible role within a network or assemblage, the meaning inscribed on it, a different approach points to the unexhausted or 'excessive' quality of experience, that which is not visible. This does not mean that such experiences are irrelevant or meaningless. Dimitris Papadopoulos and Niamh Stephenson have sought to address the loss of experience in some contemporary

⁸ Adrian Peace makes a point which resonated with my own experience. His own ethnography of a small rural community suggested to him that despite the forces of modernity the people and place retained "a strong, indeed pervasive, sense of its own distinct identity, of being a special place in the world" (Peace 2001 : 1).

critical research by turning to the everyday, continuous experience which unfolds outside of modes of representation or identity. Unlike the experience which is the focus of state rationalities, or the experience that is increasingly worked upon and transformed in micro-political processes at the limits of the state, Papadopoulos and Stephenson focus on the everyday experiences which escape articulation. "Doing imperceptibility means retreating from the invitation to connect to others along terms dictated by the need for recognition of an individualized, divisible experience" (Papadopoulos and Stephenson 2006 : 176).

Papadopoulos and Stephenson use the novel *The Emigrants* by W.G. Sebald to show how continuous experience escapes normative claims. The book follows four characters that lived through the Holocaust. Sebald juxtaposes the 'fact' of the Holocaust as it is grasped by the protagonists with the 'meaning' of the Holocaust as it materialises in a bewildering assortment of objects, photos, memories, places and people. While the 'fact' is normative and universal, a public knowledge, the 'meanings' are much more complex and individuated as each individual draws on the many experiences that happened around the event. "The Holocaust is dispersed in situations, encounters, things, people...History disseminates in the most unexpected corners of one's experience" (Papadopoulos and Stephenson 2006a : 445).⁹

It is not surprising or accidental that Papadopolous and Stephenson use an example from literature to illustrate the ways in which experience is always more than a straightforward narrative, a clear and transparent representation of a particular subjective position. Experience is full of tensions and possibilities. While it is represented retrospectively this is always within a particular 'milieu' or context, one in which certain aspects of experience are identified as significant or relevant. Other experiences can appear in apparently banal moments, fragments, conducted through objects, animals or people. These experiences are not easily recuperable within a clear narrative. They do not pertain to the articulate subject of neoliberal governance, or to the critical accounts that

⁹ Sebald manages to avoid any singular rendering of these experiences: there is no sentimentality, pathos, sorrow, regret, or if there is they overlap so that none can preoccupy the experiencing subject. Even in those moments when the history of the Holocaust has been monumentalised, for example in a graveyard, the characters refuse any predictable response: what is experienced is mundane, tangential, seemingly irrelevant. "Although their everyday existence has been touched by the Holocaust the migrants' lives are not dominated by the trauma of survival.... They live arbitrary lives, which are no more and no less exceptional than most. But in doing this, they let history emerge and flow through many different unconnected, small incidents of life" (Papadopoulos and Stephenson 2006a : 446).

equate experience to such 'ensnared' subjectivities.

This difference, of 'fact' and 'meaning', or 'identity' and 'experience', was useful when trying to think about the difficulties and contradictions which people I met had in speaking about their experiences. In Castletownbere the experience of what it meant to work and live there, the experiences that were bound to the materiality of the place but at the same time not determined by that place, are not easily described. 'Nature', 'environment', 'community' are not terms that many people I met used. Yet they all had experiences that were grounded in and provoked by the material world in which they lived and worked. While there is a single, dominant view of Nature as an external world in need of protection and preservation being inscribed through environmental governance and sustainable development this normative and normalizing projection does not account for or eliminate the many 'everyday natures' that unfold through people's processual experience within a particular material setting. In this sense there is no 'Nature' as an external realm encountered by a pre-existing 'subject'. While it may be spoken about in a given situation as a particular 'thing' this representation is not 'given', it does not negate the fact that experiences go beyond such representations, that one depiction can be contradicted later on. This is because the world is not experienced as static and 'objective'. It is that "which is not fully yoked into a system of meaning, not entirely subsumed to and defined within a (global) order; it [becomes] the aspect of every site that exists as potentiality" (Gibson-Graham 2005 : xxxiii).

What 'nature' meant, and place, community, the future, was animated in phrases, in evocations, in stories, in the odd, everyday encounters that took place. It was not a pristine area of scenic beauty, nor was it 'just a place to work', a place that was taken for granted by those who were 'too busy' to look up from their tractor wheels or fishing nets. It was a place that was lived in most of all, in moments when something or somewhere was animated through a story or past experience, described through gesturing to a place over the hill, or the description of somewhere through directions - 'just before the old straight road, across from John's'. Places recounted through combinations of places, people, things.

The sense in which meaning and value was 'storied' in this way through buildings scattered on the hill-side, bends in roads, people, supports the idea that experience is

dispersed across things and places, not a singular consciousness or perception. As Papadopoulos and Stephenson write “[e]xperience is not primarily a matter of thought, it is always matter” (Papadopoulos *et al.* 2006 : 166). In this way experiences were most often articulated through things and people: they were provoked or brought on by the immediate context or activity we were involved in together. This suggests the importance of living in the place, of not limiting 'fieldwork' to a pre-determined time or space, and of being open to these incidental expressions of everyday natures. As Geertz writes:

No one really has a theory of (place). No one imagines it is some sort of data to be sampled, ordered, tabulated and manipulated. To study place, or more accurately, some people or other's sense of place, it is necessary to hang around with them- to attend to them as experiencing subjects, as the responsive sorts of beings for whom, in Casey's words, 'the world becomes bedecked in places'" (Geertz 1996 : 260).

Entanglements of objects, animals and people come to re-territorialise understandings of subjectivity and experience. As evoked so clearly in Sebald's narratives 'elements of the material world are artefacts of experience.' "Other people, things, material spaces, situations- all these actants - participate in the unfolding of experience. Experience is not primarily a matter of thought. Things and spaces are carriers of experience, which becomes ours" (Papadopoulos and Stephenson 2006a : 442).

I interviewed Johnny, a fisherman, one evening in his house. His father was a fisherman. He told me how he'd begun as a young boy during the holidays helping his dad catch salmon in July, shrimp in August and then the pollack and crab just after he'd gone back to school. He started making his own pots then and fishing them himself. When I asked him how things had changed in the area he said:

Here now where I am there were nine houses one time. The colony it was called. They were probably for workers down in the castle. Our children are here now but there are no more kids now west along from here. Jack's kids were coming up behind me. The house over here where Denis Healy, the Shea's, their oldest was just a head of me. Over here you had the Lynch's. His daughter was a year older than me. Their children, some were older, others younger. There were a lot of young people growing up around here when I was young (14/05/09).

In this brief passage Johnny combines buildings, local geography, people, the past, the present as a means of articulating a feeling of change. The words are almost insensible without the gestures and movements towards particular places and things. This form of expression is not abstract or clichéd; it is a singular expression of how the experience of time is enfolded with places, people and things.¹⁰ Thrift describes this as needing to find a way to map a new 'cartographic' person. Eliding the terminology of archaeology, of digging and discovering, he tries to think of the personal and collective biography as something spread out on the surface of the world rather than buried in its past (Thrift 2008). Thus persons become, in effect, rather ill-defined constellations rattling around the world which are

not confined to particular spatio-temporal coordinates, but consist of a spread of biographical events and memories of events, and a dispersed category of material objects, traces, and leavings, which can be attributed to a person which, in aggregate, testify to agency and patienthood during a biographical career which may, indeed, prolong itself well after biological death (Gell 1998 : 222).

In this way it is significant that a methodology of the imperceptible turns away from 'optic' strategies of inclusion and articulation (what I had been following through my interviews with 'experts' and technologies of representation) to the everyday 'haptic' strategies of people engaged in normal, everyday life. The haptic describes the non-spectacular experiences of people as they unfold across places, animals, artefacts. Non-spectacular in the double sense: neither extraordinary, nor, necessarily, sensible to the 'optic' regimes of surveillance and representation.

Suspending difference

In this section I use the concept of continuous experience to re-think the

¹⁰ Tim Ingold uses the term 'taskscape' to describe the way places and people are co-produced through activities. He uses the *The harvesters* (1565) by Pieter Bruegel to illustrate this. Twelve paintings depict the months of the year. He describes how the place and the people are bound up with each other through countless different activities. He writes: "[i]t does not begin here (with a pre-conceived image) and end there (with a finished artefact), but is *continuously going on*." [Ingold, 2000: 205] While Ingold uses an historical scene to describe this I argue that this experience of time and place as 'enfolded' continues today.

relationship between 'field' and 'home', 'subject' and 'researcher'. While my identity as a researcher was used as a way of distancing me from my 'subject', the fishermen, there were times in my fieldwork where such distinctions were suspended. This involved ordinary moments of being together opening up to some form of common or shared experience. While these common experiences do not deny that identities and subject positions exist they suggest that there are ways of going beyond such representational modes.

Observing from a distance

At the same time as I was being identified as a useful researcher by my 'colleagues' in the field I was also being warned of the difficulty of my 'subject'. Having met a 'converted' fisherman, a local, and hoping he would be my 'gatekeeper' to the fishermen I was told it would be near impossible to get out on a boat due to their mistrust of researchers. In other contexts I was given suggestive smiles and comments about how fishermen were 'liberal with the truth', that they never told the same story. Conversations about 'them' (fishermen) inevitably widened the gap I felt between us. I was told they were mistrustful and unlikely to want to talk to me. In my first meeting with a local marine scientist in BIM headquarters in Castletownbere I was asked how I was going to 'truth' the fishermen. She told me that fishermen never told the truth. They said one thing and then another. This sense of fishermen being in some way opaque or elusive was a theme throughout my research: not providing clear data for scientists; unable to agree on collective management plans; unwilling to cooperate with fisheries managers. In some sense this echoes the popular image of fishermen as tellers of tales, or 'tall stories'. In a broader, more formative way I was led to understand that it would be hard to explore and record the forms of 'knowledge' and 'meaning' expressed by fishermen: the immersed, embodied activity of 'practical' folk. Coming from a university background with little experience of living in the countryside, I was assumed to have little in common with the people who lived and worked there.

For the first seven or eight weeks I watched from a distance as the boats came and went into the town. I watched them pass between Bere Island and the mainland where I walked in the afternoons. They were almost within touching distance and yet the sea acted

as a literal and metaphorical barrier: they disappeared to sea and lived their lives out of sight, returning to land where they disappeared into the fabric of the town. The sea itself began to occupy my thoughts, fashioning my preconceptions. I was told frequently that it would be very difficult for me. While I had never been seasick people who knew told me that once I passed beyond the horizon and the land fell away the sea became an altogether different place; that I would be tested. Often, after doing errands in the town, I would walk or drive along the quayside where the boats were tied. I would pass groups of fishermen mending nets or chatting by their boats. I was strangely nervous and yet longed to leave the land and see for myself what happened.

Encountering the 'subject'

I first met a fisherman through an incidental exchange in the local pub. I asked the man beside me if he knew any lobster fishermen. He told me to get in touch with another man, and gave me his number. I rang him the next morning and met him the following day in the afternoon. It was a Friday and the pub we met in was filling up. A large man sat at the bar and knew who I was immediately. He told me that his wife and sisters were behind us. They met every Friday for lunch. A group of about six women and several children sat over his shoulder. His wife carried a small baby, their grandchild, in her arms. He got me a cup of tea and we talked for an hour or so before he asked if I'd come around with him in his van as he had a few jobs to do. We drove to a small pier about ten miles away. He had some pots to collect. I helped him lift them into the back of the van as I tried to ask him questions about the fisheries. Then we pulled his small punt out of the water and removed the engine. On the way back to town we stopped at his friend's house and had tea and biscuits. He introduced me to his friend and his wife and I sat listening to them speak about problems, local and general, social and political.

My encounters with people in managerial roles had been delineated from the beginning, always premised on the assumption of our common position as researchers, as related through a common concern with a world in which we were not *really* involved. We could comment on the fisheries while leaving our personal lives outside the discourse. We met in offices or in conference rooms. We met during 'office hours'. Contact was through official email addresses or office telephones. I used a tape recorder and a notepad. We

often had coffee. The structure of the encounter was defined by these artifacts and technologies, as well as preconceived ideas of what our work was which orientated the conversation. There were, for example, awkward moments when I asked to use my tape recorder. The implication being 'why would you want to record me, I'm not your subject'. It was as though I was crossing a line, confusing the roles. In a sense these encounters were instrumental or functional, at least that was how they were experienced. We were part of the same 'community' even as we corresponded through a limited set of concerns and experiences. This meant that interviews were rarely challenging or personal. I was rarely nervous about meeting my 'peers', knowing that we would be cloaked behind an implicit, mutual understanding about my approach, my reasons, my questions. The encounter was *easy* in that it was predictable.

In contrast I met Frank in a pub on a Friday afternoon. His family were introduced to me within minutes of meeting. I had been allowed into something that was unclear and ambiguous. The terrain on which we met was never articulated. He asked me vaguely what I was researching and I told him it was for a book on the history of the fisheries. He didn't ask any further and was happy to talk to me about a range of subjects depending on how the conversation flowed. But I was nervous and uncertain. He spoke most of the time, and mostly complaining about the way the fisheries were managed. Things shifted when the conversation 'fell' on something outside us: his grandson being held by his wife; the Martello Tower above Blackball Harbour; the weather that we had just had. While these deviations or fragments were only fleeting and occasional they operated on a different register to the stream of complaints about the EU, the government, imports, the recurring targets of fishermen's anger as I was to discover.

I went out fishing with Frank several times over the next few months. As well as that I would meet him on the street as he cycled his bike or passed me in the car. These were all different, shared experiences. They became layers, not in any cumulative way but as part of a growing relationship that had a ground beneath it, something material. Standing on deck helping to cut a dead seal free from a tangle net is different to meeting on the street when a friend from Dublin was visiting and the introduction becomes awkward and the space and time for talking disallowed. Similarly, meeting in the woods when we hadn't met for a while and we had more news to share, or he was reminded I was

still there and interested in fishing and would invite me out next day, were all part of the meandering ways in which relations are formed, not only or principally between researcher and subject but between people with *common* experiences. As our exchanges, our communicating, traversed these different terrains, different sides emerged, different opinions, contradictions, mistruths, exaggerations, facts, opinions, information about the weather, the local restaurant or the Lisbon treaty. In this way our experiences were not cumulative in the sense that they built on one another. My conversations with him did not reveal a clear picture of the man, any more than conversations with my 'peers' did.¹¹ Our conversations were not as important as a growing *sense* of the worlds in which we each lived. In each new encounter a different story would be told, a different reflection or association - the house he was born in, the boat he used to own, the wall he built. This 'thickening' of experience is not easily transcribed. But it does give a more palpable sense of how experience unfolds in and through the world.

Being-together

Pierre Bourdieu has argued that the distinction between practical knowledge and abstract knowledge has been obscured by a 'scholastic fallacy' (Bourdieu 1990). He argues that this fallacy or 'prejudice' assumes an equality between 'detached thinking' and 'immersed practice'. The origin of this misunderstanding is traced to the notion of universal aesthetic experience articulated first by Enlightenment philosophers in the eighteenth century. The universal aesthetic of Kant and Schiller was, for Bourdieu, an arrogance. It forgot, or ignored, that the possibility of such universal feeling required, first, the universalization of those conditions of economic and social privilege. Similarly the sociologist who interprets reason and logic in the actions of a subject forgets that such reason is only present for those who occupy a situation of *leisure*, time to contemplate and know where and how one comes to be.¹²

Bourdieu calls for the completion of the task of true critique, that is, critique of self

¹¹ As Clandinin and Connelly write: the relationship between a researcher and a subject is not a threshold to cross but something to be constantly negotiated (Clandinin and Connelly 2000).

¹² Jacques Ranciere attacked Bourdieu on exactly this point. Ranciere argued that despite seeking to overcome inequality Bourdieu's analysis succeeded in endlessly re-inscribing *a priori* distinctions of who was capable of thinking and who was capable of acting, who was outside and who was inside (Ranciere 2006, 1991).

and the activity of 'thinking the world'. Once the distortions affected by the 'intellectual bias' are recognized the true procedures of scientific work can begin. "It is a question of understanding and mastering these distortions" (Bourdieu 1996 : 18), asserts Bourdieu. Rather than trying to avoid the fact of asymmetry, between subject and researcher, either through distance or phenomenology, Bourdieu posits that the social scientist must seek to control it.¹³

Such presumptions about the role and position of the researcher in relation to the 'subject' of research, Paul Rabinow writes, "requires, demands, fabricates, and defends clearly drawn boundaries between subjects and objects in order to operate" (Rabinow 1996 : 20). While there have been critical reflections on the relationship between the categories of 'field' and 'home' in recent decades (See Caputo 2000; Bornstein 2007) they remain necessary distinctions within social science. While D'Amico-Samuels argues that '[t]he field is everywhere' institutions (the academy) cannot accept such radical dissolutions. Instead they respond with the predictable: 'if it is everywhere then it is nowhere.' Finding a way out of this impasse Clifford suggests that "'[t]ravel' denotes more or less voluntary practices of leaving familiar ground in search of difference, wisdom, power, adventure, an altered perspective" (Clifford 1997 : 218). Travel is a moment of transcendence then, liable to happen to the fieldworker as much as the person pursuing their everyday life, and capable of happening at any time (not within a particular, objective space or time i.e. 'during fieldwork').¹⁴ Rabinow puts forward a similar idea when he asks, "[w]hat if we did not begin with the distinction of subject and object and its secondary assumption that it is the culture that is enunciated through speaking subjects?" (Rabinow 2003 : 109). As a 'floating inquirer' he recognizes that as an anthropologist, professor, citizen, he occupies multiple positions, a set of ambiguities that is not a quality

¹³ "Attempting to situate oneself in the place the interviewee occupies in the social space in order to understand them as *necessarily what they are*, by questioning them from that point and in order, to some degree, to *take their part*...is not to effect that 'projection of oneself into the other' of which the phenomenologists speak. It is to give oneself a *general and genetic comprehension* of who the person is, based on the (theoretical or practical) command of the social conditions of which she is the product: a command of the conditions of existence and the social mechanisms which exert their effects on the whole ensemble of the category to which such a person belongs (that of high school students, skilled workers, magistrates, etc.) and a command of the conditions, psychological and social, both associated with a particular position and a particular trajectory in social space" (Bourdieu 1996 : 22-23).

¹⁴ "Fieldwork, in this light, may be understood as a form of motivated and stylised dislocation. Rather than a set of labels that pins down one's identity and perspective, location becomes visible here as an ongoing project" (Gupta and Ferguson 1997 : 37).

of his alone but of all people.¹⁵

If there is no *a priori* 'subject' to be understood then there can be no 'distortions' to remedy. 'Distortions' can be re-imagined not as 'errors to control' but as potentially productive modes of dis-identification, movements away from subject positions constructed by social norms and perception.¹⁶ Sociability in this sense always entails an element of *misrecognition*, rather than 'knowing' *a priori* what is at stake and who is involved. Not only does this concern for misrecognition question Bourdieusian notions of the structuring 'habitus', it also questions the emphasis on discourse and subjectification which ultimately render the subject incapable of embodying or articulating an experience which is outside the structuring habitus, culture or discourse.

Overcoming, or at least questioning, the distinction of subject and object, or, in Bourdieu's case 'practice' (partial, immersed, subjective) and 'thought' (abstract, distant, objective) overlaps with an understanding of experience as something which is not reducible to an *a priori* set of conditions (social, economic, technical, cultural). Rather it shifts the problem away from epistemology towards experience. Following this shift means that the (binary) relationship between fieldworker and informant becomes questionable in the light of rapid and multiple transformations: the 'quickened beat of improvisation stands to outrun the habitus's glacial force' (Biehl *et al.* 2007).

While encounters with fishermen were often marked by predictable identifications of me as a researcher (non-local, urban, middle-class) these identifications were never constant. Arriving on a boat would always involve initial introductions and awkwardness. If I was not working on the boat this was harder to overcome as there was little to share. The very presence of me on the boat as an 'observer' reified the distance between me, and my role, and 'them' and their roles. But it was never hard to find a common ground on which to meet: the weather; the football results from the weekend; the news item on the radio.

¹⁵ Interestingly while researchers in science studies, as well as Marcus and Holmes in the area of finance, have recognised the existence of 'experience' in realms of 'technical expertise', the reverse has been much slower: the recognition of 'thinking' in practical experience. Perhaps revealing in this context is Marcus and Holmes' description of subjects in areas of 'expertise' as 'counterparts' rather than the 'other'. It is unlikely that a researcher would ever name a 'native' (fisherman) 'counterpart', and if she did it would probably be interpreted as a 'conversion', a shift from one 'culture' to another.

¹⁶ Strathern writes that critical research should refuse meaning rather than seek to impose it or 'discover' it (Strathern 2004).

The first time out on a boat with Frank we stopped after a morning hauling pots for breakfast. It was a beautiful, crisp winter's day. Frank boiled some of the fresh prawns we had just caught in a pot and we ate them together admiring the day and saying several times how we couldn't think of anywhere we would rather be. We had just worked together for four hours in relative silence. He had shown me the basics of what I had to do. We didn't talk about anything in particular; occasionally he asked me what it was like in Dublin. I had presumed fishermen didn't like fish and were too busy working to admire the scenery. He had presumed I'd get sea sick as soon as I was out to sea. The next time we went out I brought some soup I had made. He enjoyed it and each time we met after that he asked if I had made any more.

The manner in which shared experience can suspend identities was made clearest to me, however, by my experience on a whitefish trawler. There were four of us in the crew. One was local but had not been fishing for ten years; one was from Northern Ireland and had fished all his life; another was from Estonia and had never been on a boat in his life and I had never been out on a whitefish trawler before. We were a motley crew of strangers trapped on a forty foot boat for a week. We slept little and the rest of the time we were with each other, working or eating. Despite having little time to talk to each other about our lives or backgrounds we laughed and swore as we sorted, gutted and stacked hauls of fish, shared cigarettes waiting for the nets to come in and took turns cooking as the normal chef wasn't able to come out.

When we got back to land myself and Sven, the Estonian, were standing on the quay helping to unload the fish. It was the first time I asked him where he was from. His sister worked in the fish factory and had helped him get a job on the fishing boat. He had just finished a six month tour of duty in Afghanistan. His English was not very good but he managed to mime to me that his friend had died in combat. He said that the fighting had been very hard but the money was good. He was now trying to save money to send back to his wife and baby girl in Estonia. He was the same age as me.

At one level Sven and I couldn't have been more different. While I was able to drive away from the quay to 'write up my notes' he was going back out to sea the next day. He had had experiences which I couldn't even imagine. In terms of power, global politics, culture we could be separated. But at the same time we had shared experiences together

where such differences had not been important. While there were jokes about my 'soft hands' and the idea that I had probably never done a days work in my life, there were also moments of togetherness that overcame our individual pasts or 'cultures'. On the boat everything was shared, nothing was owned. Cigarettes were the only thing we brought with us from outside and these became common property. A field note I managed to write down after the third day sums it up: "Working together, especially last night, makes a good feeling, togetherness, having a laugh, all tired together, difficult circumstances, hope for big catch of fish" (Fieldnote 15/12/09). These shared experiences do not deny or ignore our very different circumstances and life histories but our 'being - together' was just as 'objective' as our 'being - apart'.¹⁷

The process of going out on the boats was important, not just for my research, for collecting data, but for overcoming the stultifying barrier of subject / researcher. Overcoming a sense of 'otherness' was not, primarily, based on a progressive 'learning' of a 'cultural discourse' but rather a recognition that we could experience things in common even as we were different. At moments on the boat I was a researcher jotting notes down before I went to sleep in my bunk or trying to remember the image of the first haul of fish so I would be able to describe it later. At other moments the skipper would make a remark about my work, ask a question about funding or joke about how smooth my hands were. But at other moments, after five hours of gutting fish, cleaning decks, smashing ice, stacking fish and eating bacon sandwiches we might stand on the deck watching the sun come up and experience a common relief, discuss the catch, remark on how beautiful the view was.

Instead of trying to artificially suspend difference through the imposition of a commonality (as phenomenology might), or else insisting, as Bourdieu does, on the difference of researcher and subject and thus the need to find ways of accounting for that difference, I came to think difference in terms of continuous experience, as something which goes beyond the encounter of two separate, fully formed subjects. Rather than beginning with an *a priori* subject and a desire to 'know' that subject, or 'excavate' the

¹⁷ The following quote from Viveiros de Castro, referring to the ritual of mask-wearing, resonates with this notion of attuning to different 'objectivities': "[t]o put on mask-clothing is not so much to conceal a human essence beneath an animal appearance, but rather to activate the powers of a different body" (Viveiros de Castro 1998 : 482).

knowledge that generates that subject, an understanding of continuous experience “neutralises the question of ‘knowledge’ at the outset, because meanings - be they native (relativism) or supra-cultural (universalism) - no longer need to be excavated, illuminated, decoded and interpreted” (Henare *et al.* 2007 : 4). To experience *with* the other is not to try and grasp the ‘truth’ of the other. It requires that we inhabit the world differently (rather than ‘imagining’ ourselves in ‘their shoes’).¹⁸ This experience can be expansive, unpredictable and non-linear. These moments of ‘border-crossing’ are not, as I describe them, suddenly transformative or world-making. They do not have any immediate end and their outcomes, if there are any, can only be known retrospectively. What I am describing here refers more to those everyday, ordinary moments when, in the unfolding of experience, there is a rupture of identities.

Continuous experience and research

Moments of dis-identification are more than a ‘forgetting of roles’, they speak about the multiple, material and collective nature of subjectivity and how it is possible to inhabit the world differently. As I became involved in the material experience of living in Castletownbere I also became more than a ‘researcher’. These ‘transgressions’ became the source of new and unexpected encounters, experiences and thoughts which can not easily be understood in terms of a linear, progressive timeline of research. It was the disruption of previous lines of thought which made the research process productive as a space of thinking and acting.

Being open to my wider experience of living in Castletownbere, the extensive field of encounter and re-encounter, brought the boundaries that constructed me as a researcher into question. My field site may have been definable in space and time but it was still multiple. The field can sometimes be more vivid, more present, when staring out of the window at ‘home’ than it can when immersed in a particular situation at sea. As Papadopoulos argues, experience is always retrospective. In this sense my experiences, which correspond to my data collection and reflection, could not easily be located in any

¹⁸ While this can pose a number of further questions the energy for it derives from a need to bypass or avoid questions of dualism: of representation/ reality, of subject/ object, of fact / fiction. As Henare *et al.* (2007) write, the question is: “How, in other words, the ways in which people go about their lives may unsettle familiar assumptions, not least those that underlie anthropologists’ particular repertoires of theory” (Henare *et al.* 2007 : 8).

particular space or time. Marcus speaks of a 'concatenation of legs' in which encounters in the field can be realised as experience, and thus subject to thought, when walking the corridors of the university (Marcus and Okely 2007). This honest appraisal of how fieldwork emerges over time evokes the imagery of fractures and links, of threads and fragments and the potential for the field to erupt again through enlivening associations in the future.

The ways in which I had to leave the normal, predictable times and places of my 'research' in order to engage with different experiences is evident in the contrast between my encounters with fishermen, and more generally the people who lived in Castletownbere, and those employed in the management of the fisheries. Living in Castletownbere forced me to enter into different rhythms, ones which were grounded in an evocative, 'thick' material world but equally an open-ended temporality that was not fixed by external limits. This did not only open up unplanned and rich encounters and relations with people who lived there, but also shifted the way I thought and even the way I read.

Jane Bennett writes about how reading Merleau-Ponty made her look at a pile of rubbish differently (Bennett 2010). Her encounter with that pile of rubbish translated through her encounter with Merleau-Ponty (and much more) led her, at least in part, to the writing of her book *Vibrant Matter*. My own research experience was littered with these kind of refractions, what I might call experiential, in that they were associations beyond what could have been imagined, the bearing on me of something in the world which thrust me into a different subjective position, a different way of thinking. Reading in the field helped to draw me towards a different reading of the field, not to shy away from the difficult or ill-defined aspects of my experiences there, the continuous experience of being a part of embedded, everyday social relations.

My experience of doing research was not a clearly bounded process, a shuttling back and forth between 'us' and 'them', 'participating' and 'reflecting', 'theory' and 'fieldwork'. I lived in Castletownbere for over a year. In that time I read, wrote, went fishing, walked the roads, drank in the pub. At home in the evening reading a book of political philosophy my mind might wander to a particular moment on a fishing boat suddenly bringing it to presence. This was not a moment of 'enlightenment', the realisation of what this moment 'meant', but a connection, a new connection. This

coincidence was not a parallel process of reflection and bodily movement but rather the enfolding of mind and body in moments of experience in the world. This process of connecting did not obey boundaries. It did not stop when I was watching a film or reading a novel, it did not stop when I was talking to someone in Dublin about a topic entirely unrelated to my research. These encounters, patterns of connection, were provoked by certain questions. Different artefacts, texts, conversations, stories became relevant to my research in ways that were unexpected and not always immediately explicable. There was a kind of resonance between apparently incommensurate experiences, spatially and temporally. Rather than deny these experiences I found, as my fieldwork progressed, myself becoming more open and accepting of the inconsistency of these moments.¹⁹

After being on fishing boats I would write up notes in the evening trying to describe everything I could. Even then moments would return to me at other times, incidents I'd forgotten or words said to me that had not seemed relevant. At the same time passages from books or ideas from articles I had come across early on in my research came to take on different meanings, which I returned to. All these notes and thoughts were compiled and collected on my computer. At first my desktop was littered with many different word document files. These were then re-arranged within folders with broad titles such as 'Nature', 'Experience', 'Fishing'. Over time notes from these folders would be re-distributed into new folders, with new names. As time went on and my thoughts became clearer, the questions I wanted to pursue stronger, these names of these folders lasted longer. The frames I had to put on my rich array of readings and experiences took on a more confident hue. In this way the process of readings, writing, note-taking was a constant back and forth. Folders would be re-opened and re-assembled in an ongoing process of sifting, "a kind of back and forth writing, receiving response, revising, setting it aside, writing another chapter or section following a similar process, then holding it up against the other chapter, until finally there is a sense of a whole, a piece that feels like it could stand, at least for this moment, alone" (Clandinin and Connolly 2000 : 167).

This process continued throughout my writing up. Even as I came to writing my

¹⁹ Jonny Steinberg's book, *Three Letter Plague*, is a good example of this. Steinberg began his own research in the town of Lusikisiki where one of the most renowned HIV medical programs in South Africa was being run by the international NGO *Medecins Sans Frontieres* (MSF). Steinberg's research is not about political economy, about cheap or efficient healthcare, but about the experiences of the patients and their 'inexplicable' refusal of free treatments (Steinberg 2009).

chapters the titles remained vague. It was always hardest to put a name on the subject matter, to draw lines across a world that had not been fragmented to begin with, especially when those lines were most often the ones that accorded with pre-existing disciplines or analytical frames (epistemology, policy, economy). "The result, inevitably," as Clifford Geertz put it, "is unsatisfactory, lumbering, shaky, and badly formed: a grand contraption" (Geertz 1995 : 6).

Conclusion

In this chapter I have outlined the way in which my research moved from an initial focus on the rationalities of power and the way subjects were interpolated within those rationalities to the ways in which everyday, continuous experience escapes such normative representations. There are two elements of this shift that suggest directions for future methodological inquiry.

Firstly, the concept of continuous experience challenges the understanding that subjects are discrete, rational individuals projecting themselves into an objective world. While this liberal subject has been problematised by critical social research the consequence has been the opposite inference. That subjects are not autonomous actors but are instead determined by overlapping and contested regimes of knowledge which materialise through the conduct of individuals. While subjects are always part of and in part determined by their social relations they are also unfinished and unfinishable. Continuous experience argues that subjectivity is always excessive to what is drawn out or made visible within the visible or 'optic' world. Continuous experience is dispersed across people, places and things and thus materialises in ways, through encounters, that are unpredictable. While these experiences are not articulable or coherent they are still significant to the ways people narrate their lives outside of dominant discursive regimes.

Secondly, the concept of continuous experience challenges the relationship between researcher and subject. While the dualism of 'home' and 'field', 'researcher' and 'subject' have been questioned within academic literature the emphasis has been on how the relationship can be managed or understood. Continuous experience suggests that identities are more fluid and open to disruption than this. While not ignoring or neglecting the significant and social, economic and epistemological structures and relations which

inform, modify and generate subject-positions, and power, attuning to the ways in which such positions are not fixed or reified allows for a more transformative and creative understanding of inter-subjective relations. One particular direction or point of interest is how identities come to be suspended. From my fieldwork I have argued that relations with people in Castletownbere were richer and more intimate for reasons of shared encounters and experiences, meeting in unpredictable places, working together, sharing a certain sense of materiality through a place, things, food. In contrast encounters with respondents which were mainly discursive offered less possibility for moments of suspension. Encounters were already determined by our roles, implicit goals and shared backgrounds. This form of prescribed community did not allow for novelty or difference to emerge.

Chapter Two

Biopolitics and the new enclosures

Introduction

In this chapter I will argue that the current re-structuring of the fisheries can be understood as a new form of biopolitics. The term biopolitics comes from Michel Foucault. I begin the chapter by outlining his analysis of grain scarcity in the 18th century as a way of illustrating how new forms of power and knowledge emerge when life itself becomes the object of government and the justification for political intervention. I make a connection between this historic problematization of scarcity and the way the question of scarcity is currently being articulated in the case of the fisheries. I argue that biopolitics offers a way of understanding how novel interventions into the natural and social worlds can be justified by the need to 'preserve life'.

European and Irish fish stocks have been steadily depleted through intensive, commercial fishing over the past thirty years. This is understood as both a crisis of production and a crisis of government. Breaking the 'vicious circle' of overfishing and non-compliance requires more than improved regulation or financial incentives. The upcoming reform of the Common Fisheries Policy (CFP) has called for a 'wholesale transformation' in the fisheries.

Framing the crisis of overfishing as an ecological question guided by a commitment to getting back to a stable cycle of production in harmony with natural cycle, is characteristic of ecological modernisation (Franklyn 2002; Hajer 1996; Warner 2010). In section one I argue that the principal way this 'wholesale transformation' is coming about is through, what I call, the 'preservationist turn'. The fisheries are now being articulated in principally ecological terms. The need to sustain fish stocks at 'healthy' levels becomes the unquestioned 'fact' at the heart of fisheries policy in the EU and Ireland. Rather than fish stocks being perceived and managed as resources for economic

exploitation, they are being seen as 'common' resources which must be preserved for the good of all 'present and future generations' (See Rist *et al.* 2006). This opens the space for new forms of power and knowledge over the fisheries.

At the same time as the fisheries resources have been framed in biological terms the roles and responsibilities of fishermen have also been re-articulated. In section two I return to Foucault's concept of biopolitics and its historical parallel with the enclosure of common lands in Europe during the 18th century. While biopolitics is analysed through the framework of a liberal form of government (Lemke 2010) there is an opposite, and seemingly paradoxical, illiberal consequence of making life the basis of state power (Opitz 2011). At the moment when the liberal, rational subject emerged in the 18th century so too did the anarchic, illiberal subject who had no place within the modern 'milieu'. The exclusion of this anarchic subjectivity took place through explicit forms of state intervention and policing but also through the force of a political economy which rendered certain activities and knowledges productive and others not.

I argue that similar processes are unfolding in the fisheries today as the 'urgency' of preserving fish stocks justifies unprecedented forms of 'hard' policing, while at the same time presenting new 'opportunities' to those fishermen who are able to represent themselves within new regimes of visibility as 'environmental' subjects (Chazkel and Serlin 2010). In this way the 'preservationist turn' amounts to an emerging 'ethical regime of life'.²⁰ In section two I focus on how the 'preservationist turn' leads to new forms of liberal and illiberal power directed at transforming fishermen into 'stewards of the sea'. This can be understood as a form of 'responsibilization' of fishermen in relation to the marine environment. Parallel to new forms of policing there is a discourse which presents the environment as an 'opportunity' for fishermen. Through, what I call, 'technologies of representation', fishermen are encouraged to 'differentiate' themselves on the basis of their environmental conduct. In section two I describe one such technology of representation being implemented within the Irish fisheries.

The emphasis on 'differentiation' and the function of 'technologies of representation' overlaps with a shift in economic production. As fish stocks are identified

²⁰ "The pertinent point is that the main mode of regulation is now "ethical". In principle, and by principle, ethical regulation operates now at the scale of living beings (*le vivant*) and takes as its task the protection of life- life and living beings that are presumed to be threatened and endangered" (Rabinow 2003: 115).

as a biological asset to preserve, value is displaced away from supply-orientated, material production, towards market-orientated, immaterial production. Part of this transition involves turning environmental 'differentiation' into a market opportunity. This is characteristic of the 'neoliberalization of nature' (Heynen and Robbins 2005; Heynen *et al.* 2007; Swyngedouw 2005; Smith and Ruiters 2006; Buttel 2000). This overlapping of new forms of environmental governance and shifts in production cannot be understood simply in terms of the 'retreat of the state' and the 'advance of the market' (Lemke 2011a).

The 'preservationist turn'

In this section I begin by outlining Foucault's concept of biopolitics in relation to his analysis of grain scarcity in the 18th century. I suggest that this offers a productive way of understanding the way the current crisis in the European fisheries is being problematised and addressed. The crisis in the fisheries can be characterized as a crisis of production and a crisis of government. In order to overcome these problems I argue that the biological health of the fish stocks has been identified as the 'fact' around which a re-structured fisheries must be structured. The fish stocks are represented as a set of biological assets in need of preservation and management. The 'naturalization of scarcity' (Smith and Ruiters 2006) shifts the question of fisheries management away from being a marginal, economic concern to an urgent, ethical concern. I call this the 'preservationist turn' and argue that this turn opens the space for new forms of policing and control over the fisheries.

Grain scarcity and the rise of biopolitics

In the last of his 1976 lectures at the College de France and in his book *The History of Sexuality* Michel Foucault outlined how a new type of power, 'biopower', emerged in the 18th century in Europe. Up until this point sovereign power was characterized by a power of 'deduction', of the deprivation of goods, products, services and, in extreme cases, of life itself from the subject understood in legal terms. Biopower in contrast was characterized by a power of 'production', a power that seeks to administer, develop and foster life, "a power bent on generating forces, making them grow, and ordering them, rather than one dedicated to impeding them, making them submit, or destroying them."

(Foucault, 1998: 136)

In his 1978 lectures Foucault placed biopower within a liberal framework of government. Liberalism, as it arises in the 18th century, is not understood as an economic theory or political ideology but as a specific art of governing human beings. Liberalism differs from previous concepts of government by re-defining the nature of state power. In the Middle Ages governing reason was founded on a natural order willed by God. Liberalism breaks with this idea of a natural order as something outside the state or community, as an external arbiter. “[P]aradoxically,” Lemke writes, “the liberal recourse to nature makes it possible to leave nature behind or, more precisely, to leave behind a certain concept of nature that conceives of it as eternal, holy, or unchangeable” (Lemke 2010 : 46). Rather than ordering the world to fit a particular vision of how it should be the liberal framework of biopolitics enlists the 'natural processes of life' as the starting point and limit of power: “[t]he coordinates of governmental action are no longer legitimacy or illegitimacy but success or failure; reflection focuses not on the abuse or arrogance of power but rather on ignorance concerning its use” (Lemke 2011a: 46).

One of the examples Foucault used in his lectures to illustrate the way in which life became the object of power, and liberalism the framework for governing it, was the response to the question of grain scarcity in France in the 18th century. This provides interesting connections and overlaps with the ways in which resource scarcity, specifically fish stocks, is being addressed through the rationale of ecological modernisation.

Foucault describes how in the 18th century grain scarcity was a serious problem for governments. Historical experience had shown that when grain shortages occurred a frequent consequence was urban revolt and the de-stabilization of the state. Before the 1750s the prevailing response to scarcity had been a policy of 'anti-scarcity'. The response of the state was, simply, how to prevent grain scarcity so as to prevent revolt. Control and regulation were the outcome as the state sought to eliminate the possibility of grain scarcity by ensuring there was a constant supply of grain to the market even if this meant severe sanctions on peasants and interference in the price function of the market.²¹

²¹ This was part of the 'moral economy' that existed in other parts of Europe at the time which made certain 'economic' activities illegal. In the reign of the Tudors, for example, 'forestalling', withholding food from the hungry market in order to force the price to rise, 'engrossing', the practice of monopolising the market for the same purpose and, worst of all, 'regrating', buying in order to sell, were all punishable

The Physiocrats responded to this 'reason of state', identifying how resources were being wasted on the prevention of an 'imagined' event: scarcity and the prospect of a future revolt. Instead of fighting against this 'chimaera' the Physiocrats reversed the problem by framing grain scarcity as something real and 'natural'. Rather than trying to suppress this phenomena the government should seek to understand the 'reality' of why this shortage took place, the ways in which grain was produced, exchanged, circulated etc: "instead of subjecting them (peasants) to obligatory rules, we will try to identify, understand, and know how and why they act, what calculation they make when, faced with a price rise, they hold back grain, and what calculation they make when, on the other hand, they know there is freedom, when they do not know how much grain will arrive..." (Foucault 2004 : 40)

For Foucault, this issue of grain scarcity marks a decisive shift in governmental practices. In the past the question of scarcity was tied to the assumed existence and priority of the morality of the state, understood as the gauge by which activities could be evaluated i.e. grain scarcity undermined the state thus it was immoral. By elaborating a reason of state that did not begin from the pre-eminence of state reason the state had to find a different gauge on which to position itself. This new gauge was, according to Foucault's analysis, 'nature' itself understood as the biological reproduction of life. In place of the moral reason of the state came the political economy of governmental reason. This sought to create the conditions through which biological, and by extension economic, productivity could be secured. In line with this analysis, the shift towards 'nature itself' in the 18th century witnessed the proliferation of new knowledge, technologies and subjects around the need to maximize productivity. The new disciplines of statistics, demography, epidemiology, and biology were used to analyse "life processes at the level of population groups in order to 'govern' individuals through correcting, excluding, normalising, disciplining and optimising measures" (Lemke 2010 : 176)

Foucault calls this an 'apparatus of security': a continuous and widely dispersed form of government which seeks to maximize the production of life through regulation rather than prohibition. Foucault writes that biopolitics was "[i]n other words an

under law (Linebaugh 2008). In essence this political- juridicial approach to the question of scarcity required constant vigilance, discipline and regulation by the government administration; a costly and inefficient mode of government.

economics, or a political-economic analysis, that integrates the moment of production, the world market, and, finally, the economic behaviour of the population, of producers and consumers” (Foucault 2008 : 41). Rather than treating the question of scarcity as a political problem, a question that addressed the inequalities of the feudal social order, the problem was transposed onto the terrain of economy.

Sea change

The example of grain scarcity and the emergence of a new form of biopolitics provides a useful illustration of how the crisis in the fisheries is being problematised. Successive decades of fleet expansion and modernisation has led to the overexploitation of fish stocks. This now presents a classic problem for ecological modernisation (Drummond and Symes 1996). The crisis can be characterized as a crisis of production and a crisis of government. I argue that depletion of fish stocks is no longer being seen as an 'externality' to be ignored or regulated from a distance but is becoming the 'fact' around which the governance and production of the fisheries is being re-structured.

The first crisis in the fisheries can be characterised as a crisis of production. The International Council for the Exploration of the Seas (ICES) claims that 35 of 41 commercial fish stocks assessed in European waters are overfished. This amounts to 81% of fish stocks at unsustainable levels as compared to 25% of fish stocks worldwide (CEC 2008). The conflict between an industrialized fishery operating within a global capitalist market and a finite natural resources has resulted in a 'vicious circle' as fishermen are forced to fish harder and in more distant fishing grounds to repay debts and compete with fishermen in other parts of the world. While the fisheries are made up of different types of fishing activity, at different levels of rationalization, the problem of 'first' modernity pertains to them all as fish stocks are over-exploited in line with an economic imperative.

The European fleet, and Irish fleet, is thought to be 40% beyond sustainable fishing levels (CEC 2008). Rationalizing the fleet, at least the industrial fishing fleet, is now the number one priority for EU and member states, and has been since the reform of the CFP in 2002. There is a consensus that the present overcapacity depends on the lack of adequate rights of access to the current common property pool and an outdated mode of production that was supported for too long by contradictory policy and funding objectives:

up until 2002 technical conservation efforts went hand in hand with state sanctioned fleet capitalisation, in part funded by the EU.

The main policy measure used by the EU and Irish governments to 're-structure' the fisheries since 2002 has been financial incentives. Evidence of this structural shift can be found in the European Fisheries Fund, 2007-2013, reiterated in the upcoming reform of the Common Fisheries Policy. Funding was no longer available for fleet expansion or capacity-building. Instead money was made available for the decommissioning of boats,²² particularly those in the white-fish sector, and for 'bottom up' initiatives that were oriented towards environmental conservation and management and diversification of local economies. Rather than being used for the expansion of the industry funding is more strategically directed at efforts to reduce fleet size while at the same time generating new forms of value. "The emphasis will be on the economic and social well being of coastal areas," David Symes writes, "but without the assumption that fishing will provide the mainstay of the economy" (Symes 2005 : 264). However, it has been accepted by the EU that decommissioning and financial incentives alone are not sufficient to bring about the necessary 'balance' of fish stocks to fishing capacity.

The second crisis can be characterized as the crisis in government. The past twenty five years has seen the EU preside "over an unparalleled period of decline for Europe's fishing industries" (Symes 2007 : 49). The perception is of an incompetent, top down, bureaucratic political and technocratic system that does not understand the reality of the fisheries and does not listen to the needs of fishermen.²³ There is consensus that sustainable fisheries require a compliant industry that not only abides by the regulations but also engages with scientific bodies to record and monitor stocks.

The 2002 reform of the CFP was the first time the gap between management

²² The recommendation of a report published in 2005 for the Irish government was that 25% of the Whitefish fleet should be decommissioned in order to 'balance the fishing capacity to the available fish' DCMNR (2005). The overall cost of this was projected to be 45 million euro. 36 million was to come from the European Fisheries Fund with the rest being provided by the Irish National Development Plan.

²³ In 2007 a report entitled 'Reflections on the Common Fisheries Policy: Report to the General Directorate for Fisheries and Maritime Affairs of the European Commission' was published. "It is clear that the CFP suffers a serious image problem. The Commission is seen as 'regulator and enforcer' rather than as 'facilitator or enabler', authoritarian and elitist in its unquestioning adherence to conventional fisheries science (stock assessments) and remote, unresponsive and bureaucratic in its relation with the industry" (Sissenwine and Symes 2007 : 50).

policies and the fishing industry was recognized.²⁴ As Symes writes, “[t]here is a sense in which policy failure actually occurs during the transition from legislative proposal to practical implementation- ‘a kind of Sargasso Sea, where policy initiatives lose momentum, founder and disappear from sight’” (Sissenwine and Symes 2007 : 49). The inclusion of the fishing industry as a ‘steward’ of the marine is thus a pressing concern. “To bring this about (sustainability), the European Commission is ready to do whatever is required to ensure that stakeholders, consumers, scientists and managers can work together, and replace the vicious circle encouraged by past policies with a genuinely virtuous circle - a true win -win situation” (CEC 2008 : 36).

The paradox is that as the 'urgency' grows around the question of preserving fish stocks, and the marine environment in general, the need for the fishing industry to play an active part in the 'painful adjustment process' is seen to be more necessary. In this way the crisis of production and the crisis of government are closely connected, with the response requiring more than simply financial incentives and a strengthening of existing regulations. Debates around the upcoming reform of the Common Fisheries Policy (CFP) have emphasized that a 'wholesale' transformation in the way the fisheries are managed must be the response. The green paper on the reform of the CFP stated: “[t]his must not be yet another piecemeal, incremental reform but a sea change cutting to the core reasons behind the vicious circle in which Europe’s fisheries have been trapped in recent decades” (CEC 2009 : 5).

The task facing the European and Irish governments is nothing less than plotting a transformation from the current non-productive cycle of fishing to a sustainable, self-managing one, what Joe Borg describes as the shift from the ‘vicious circle’ of the past, to the ‘virtuous circle’ of the future; a transition which “may mean radical changes to the way Europe’s fisheries are managed - changes which will reverse economic and institutional incentives to overfishing and replace them with a system which positively encourages good stewardship of our oceans and seas by all those who live from them” (CEC 2008 : 7). This narrative of transition from the unsustainable 'past' to the 'sustainable' future has become the framework within which fisheries management is

²⁴ The beginning of this effort to foster novel and meaningful relations and new communicative networks between scientific and industry representatives began in 2002 with the establishment of the Regional Advisory Councils (RACs)

unfolding.

The 'preservationist turn'

When the CFP was established in 1982 it was in response to conflicts breaking out between member states over access to fish stocks. The quota system which was, and continues to be, the foundation of the CFP was thus conceived as a way of resolving national conflicts rather than managing the biological health of fish stocks: it was a tool to carve up the cake rather than a tool for conservation.²⁵ Each member state was awarded a proportion of the Total Allowable Catch (TAC) set each December by the European Council on the recommendations of their own scientific advisers, the 'Scientific, Technical and Economic Committee of Fisheries' (STECF) and those of the International Council for the Exploration of the Seas (ICES). Regulation of the fisheries has, until recently, been limited to the enforcing of such quotas. Each member state is required to monitor the landings of its fleet in order to ensure they comply with the allocated quota. In the upcoming reform of the CFP (due in 2012) there has been a shift away from managing fish stocks indirectly through ineffective policing of fishermen to a direct management of fish stocks. This places the biological health of fish stocks at the heart of fisheries management for the first time. The Green Paper on the reform makes this clear:

Most often, the only way to get back into a virtuous circle is to give nature the time and space to do her work. In other words, while economic and social sustainability are core goals of the CFP, ecological sustainability is necessarily more fundamental: for it is the biological cycle of reproduction and renewal which determines whether the human activities based on it are sustainable or not (CEC 2009 : 8).

In July, 2011 the EU proposals for a reform of the Common Fisheries Policy re-emphasized this commitment to preserving fish stocks. The rationale is that the only way to preserve a livelihood for fishermen is by first ensuring there is a sustainable stock of fish to catch in the future. The EU Commissioner with responsibility for the fisheries,

²⁵ Prior to the introduction of the CFP in 1983 EEC countries pursued their own objectives when it came to the fisheries. In developed countries this amounted to an intensive capacity building program that ultimately led to conflicts on the sea. The growth of competition between European countries led to the opening of talks to divide the resource equitably on the basis of historical catches of each national fleet.

Maria Damanaki, phrased it in terms of managing assets: “If I were a banker I would say our fish stocks are underperforming assets. Instead, I want a capital of healthier fish stocks giving rich interests, in the form of landings, to our fishing industry. I want to maximize the economic return to fishing communities...Only under this precondition can fishermen continue to fish and earn a decent living out of their activities” (Damanaki 2011d). Preserving natural resources for present and future generations, first stated in the Brundtland report in 1987 (UNWCED 1987), is becoming the 'natural' foundation for governmental intervention. Fish stocks are no longer understood as an 'externality' of the industrial fishing industry, but are the starting point for a re-structured fishing industry in line with the ambition of ecological modernisation.

The 'preservationist turn' is not just part of the CFP. The objective of reaching Maximum sustainable yield (MSY) in global fisheries by 2015 was made a priority at the 2002 World Summit on Sustainable Development and is enshrined in the United Nations Convention on the Law of the Seas. The MSY is a level set by the International Council for the Exploration of the Seas (ICES) in concert with marine scientists from relevant national governments. The MSY is defined as the highest catch that can be safely taken year after year which maintains the fish population size at maximum productivity.

Since 2007 the CFP has come under the wider policy framework of the European Integrated Maritime Policy (IMP). The IMP is one of the most ambitious new policy initiatives in the recent history of the EU (Fritz 2010). It aims for an ‘integrated’ maritime sector founded on common economic and environmental objectives. The environmental pillar of the IMP is the Marine Strategy Framework Directive (MSFD) which aims to achieve 'healthy' marine ecosystems by 2015. Dr. Paul Connolly, head of the Marine Institute in Ireland, has described this directive as the ‘train coming down the track’ for the fisheries.²⁶

Shifting the focus of management on to the fish stocks themselves opens up new forms of policing and control of the fisheries. As with Foucault's analysis of grain scarcity the key shift has been a turn to the empirical phenomena of fish stocks. The only measure

²⁶ This directive follows on from the Birds and Habitats Directive (2002) which established special areas of conservation under the Natura 2000 strategy. This directive only effects inshore fisheries and is related to biodiversity in general rather than the fisheries in particular. As I show in chapter four this directive functions in a similar way to other European directives in that it puts significant pressure on inshore fishermen to 'demonstrate' they are fishing 'responsibly'.

of success is whether fish populations are biologically productive. Around this measurable phenomena new knowledge, surveillance and technology must be inserted 'on the ground' in order to ensure that 'nature' is able to flourish. The manner in which the 'preservationist turn' has led to a new urgency within fisheries management and the new forms of power this urgency gives rise to has recently been illustrated by the issue of discards and the response by the EU.

Discarding refers to the practice of throwing away fish that are caught at sea but are not landed due to quota restrictions. Discarding has always been part of fishing. Fishermen cannot determine what they pull from the sea: 'fish do not swim in quotas', as fishermen I spoke to told me. This has led to a situation where fishermen who are struggling to make an income are forced to discard good quality fish, in most cases species which are under threat. While it is hard to be accurate the EU claims that up to half of all whitefish catches are discarded (Damanaki 2011). Regardless of the figures there is a consensus that the problem of discards must be addressed as a priority in fisheries management.

The EU commissioner Damanaki has now committed to banning discards by 2016. Under the discard ban all catches of target species and all by-catches of non-target species will be landed. Fishermen will be obliged to have CCTV cameras on board their boats to ensure they do not discard any unwanted catch. Catches will be counted against the Total Allowable Catch of each member state. Once the national quota is reached the area being fished will be closed. This means that if the quota for cod in an area is exhausted then those who are fishing for plaice or haddock, fish which are often caught with cod, would also be prevented from fishing those waters.

At the same time market mechanisms are being used to address the problem of fishermen landing fish which goes beyond their quota allocation. The principal mechanism is a system of individual transferable quotas (ITQs). Under this system individuals will not only have a fixed quota of fish but they will be able to trade it like a property 'deed'. This will facilitate the buying and selling of quota in cases where a fisherman has caught fish beyond his allocation. This effectively privatizes the fish resource (Crean and Symes 1995). The consequence will be the buying out of smaller operators by larger ones which could be catastrophic for the relatively small-scale Irish fishing industry.

Commissioner Damanaki has made it clear that she supports the introduction of ITQs but she has also made it clear that she understands the implications. In a speech given at a fisheries committee meeting she accepted that ITQs were seen as a 'capitalist response' to the crisis of overcapacity (Damanaki 2010) but she argued that they were necessary to resolve a problem which had no other obvious solution. She argued that done properly, with appropriate and meaningful safeguards, the adverse side effects of an ITQ system could be avoided while the benefits would be obvious. She quoted the example of Denmark where ITQs reduced the pelagic fleet by 50% in three years, and the demersal fleet by 30% since 2007 (Damanaki 2010). Damanaki has argued that such a system should be seen less as a property right and more as a user right granting access to a public resource for those who are shown to be 'responsible stewards'. While ITQs have been understood as a controversial mechanism for managing the fisheries for some time they are here justified not as a form of privatization but as a tool to provide for the banning of discards which is accepted as an 'urgent' problem. In this way the need to ban discards acts as a vehicle for the rationalization of the fisheries.

While the banning of discards appears to be a positive step towards the sustainable management of the fisheries framing the problem as an ecological or ethical question ('we must stop this practice') opens up the space for unprecedented policing of the fisheries and an extension of the market, both justified as 'necessary' responses to an ethical problem. Commissioner Damanaki has made this latter point clear: "I consider discarding of fish unethical, a waste of natural resources and a waste of fishermen's effort. But I would like to go further – since our stocks are declining, these figures are not justifiable anymore" (Damanaki 2011).

What is significant about the discards issue is the way in which it is accepted that the only way beyond the impasse in overfishing is to preserve the fish stocks. This 'return to nature' is not an abstract, external Nature but the empirical phenomena of biological fish populations. The fishing industry have responded negatively to the EU's proposals to 'blanket' ban discarding. While they have been highlighting the problem of discards for years the EU response has been described as 'knee-jerk' and 'populist.' However, fishermen are in a difficult situation as the 'preservationist turn' increasingly shifts the burden of proof onto their shoulders.

Stewards of the sea

In this section I will look at how the 'preservationist turn' creates the need for new 'environmental' subjects capable of acting responsibly within an emerging ethical/ecological regime. I begin the section by identifying how biopolitics opens up an ethical regime within which subjects are enjoined to position themselves. In Foucault's analysis this was understood in terms of the rise of a liberal form of government which operated through the rational, individual subject. Paralleling the rise of liberal forms of power was the rise of illiberal forms power justified through the same need to preserve life. In terms of producing and managing natural resources this can be seen in the light of the enclosures which took place in the 18th century. I argue that a similar dichotomy is emerging in the management of the fisheries: the rise of the 'environmental' fisherman is paralleled by unprecedented policing and criminalization of fishing activity (Brockling *et al.* 2010). On one hand the 'urgency' of preserving fish stocks justifies drastic measures of control and policing, while on the other new 'opportunities' are presented for those fishermen who are willing to act as 'responsible stewards of the sea'²⁷ The latter involves, what I call, 'technologies of representation' which enable fishermen to 'differentiate' themselves as 'responsible' actors.

The liberal and illiberal faces of biopolitics

At the same time as biopolitics emerged as a form of power orientated towards the fostering, advancing and preserving of life, the opposite tendency arose: the need to prevent, exclude and eliminate those elements perceived to undermine the productivity of life (Rabinow and Rose 2003).²⁸ While Foucault pursued the ways in which biopolitics operated within a liberal framework of government, giving rise to the liberal, rational, self-governing subject, the other side of this historical development is the appearance of the irrational, anarchic, ungovernable subject. While in previous regimes of power this

²⁷ Governmentality studies have tended to focus on how biopolitical rationalities come to generate and modify subjectivity in the areas of health, sexuality and work (Rabinow and Rose 2003; Rabinow and Rose 2006). There have been less analyses of how knowledge and technologies are employed at the level of environmental subjectivities or, more broadly, as a means of modifying, normalizing and generating different relations between subjects and the natural world (Agrawal 2005, 2003).

²⁸ Foucault recognized the apparent paradox at the heart of biopolitics without analyzing it in any great depth (Opitz 2011; Lemke 2011a).

troublesome subject would be punished or disciplined the era of liberal reason required a more uncompromising solution:

Whereas the subject of liberalism has to follow his interests by taking reasonable risks, the deconstituted, dangerous subject is portrayed as a deeply uneconomic subject...Confronted with the dangerous subject, governmentality encounters an interest that consumes the rational subject entirely- and turns it into an irrational, unintelligible, destructive agent outside the bounds of humanity (Opitz 2011: 110).

This dichotomy can help us to understand how the rise of biopolitics and the liberal subject which gave rise to new ways of knowing, producing and managing the natural world, took place at the same time as the enclosure of common lands (Williams 1985). The enclosures of the 18th century were justified by liberal political economy as a necessary and 'rational' transition to a more stable and productive use of natural resources. Foucault is suggestive when he writes,

You can see therefore that the principle of laissez-faire in the physiocrats, the principal of the necessary freedom of economic agents can coincide with the existence of a sovereign who is all the more despotic and unrestrained by traditions, customs, rules, and fundamental laws as his only law is that of evidence, of a well-formed, well-constructed knowledge which he will share with the economic agents. (Foucault 2008 : 285).

This 'well-formed' knowledge creates an 'ethical regime of life' within which certain activities are identified as 'rational and productive' and others as 'irrational and destructive'.²⁹ While the exclusion of those 'irrational' activities was enacted through strong state measures the rationality on which these measures were justified operated at the level of the subject. The need to preserve life generated technologies and regimes of knowledge which did not allow for other ways of relating to life, the body, nature which

²⁹ An example which illustrates this distinction is Isaak Walton's book *The Compleat Angler*, published in 1653. The book was a defense of a particular natural aesthetic. For Walton fishing offered an expression of a particular ethic, a 'way of life' which involved cultivating certain skills. The basis of this etiquette rests on and echoes the current ecological ethic of leaving 'nature' the way it was 'found', of making as little mark as possible. In contrast Walton depicts the poacher as an 'animal'. Paradoxically, this 'animality' is understood to be 'unnatural' because, unlike the 'natural' angler, the poacher does not fish with any 'respect' for nature. 'Like the wild otter' the poacher only fishes for private gain, ignoring the good of the 'common weal' (Walton and Cotton 2010).

were perceived as dangerous, anarchic and destructive. In this way the liberal form of government engenders an even more totalising exclusion of alternative subjectivities than a sovereign power could.

Policing the fisheries

The current response to the depletion of fish stocks re-articulates this rationale.³⁰ As the health of fish stocks becomes the principal gauge of sustainability fishermen are being forced to 'demonstrate' that they are fishing responsibly. Fishermen are no longer the passive and largely absent subjects of government being regulated from a distance, but are articulated as 'active' participants in the management of the fisheries (Mikalsen and Jentoft 2001; Wiber *et al.* 2004; Osterblom 2011). The last six years has seen a rapid shift in the 'burden of proof' in the fisheries. A common remark made to me in the course of my research was that fishermen were losing the 'moral battle'. As a marine scientist and former fishermen told me:

My own view is that fishermen have lost, or are losing this moral game of custodians of the marine environment. Joe public doesn't see that anymore. 20 years ago sure, they were toilers of the deep. It was a respected business. Being a fisherman, there was kudos. In terms of people's views now, look, we read it all the time- and its complete bollox- but it's this populist view that they're towing metal beams across the seabeds and they're shooting seals and smashing coral reefs and they're catching dolphins. So that, the kind of view of themselves...in Dingle, or Rossaveal or Greencastle they still have that standing in the community but in terms of the wider community I think that's gone, and I think that fishermen realize that. Whichever way you look at it I think they always feel they're on the back foot, rightly or wrongly, from the greens, the oil prices, imports, you know (Lee 11/08/09).

³⁰ Last year the environmental campaigner Charles Glover, who wrote the influential film 'End of the Line', made this position clear in a newspaper review of Mark Kurlansky's 'The Last Fish Tale'. Kurlansky's book told the history of the New England fisheries, a 'history from below', as Glover described it scathingly. He writes of Kurlansky: "He [Kurlansky] remains hooked on a mythical figure in an oily sweater at a time when what makes a fisherman great is now measured by what he leaves in the sea." Glover dismisses Kurlansky's romanticisation of fishermen and argues that environmentalists are the best fishermen today, doing the most for the fish and the sea. He quotes the campaign by environmentalists to close off 6,500 miles of sea to fishing, "with support from intelligent fishermen." He concludes: "Kurlansky seems to prefer the tragedy of brave but misguided fishermen, because it is more poetic" (Glover 2011).

In the past the fisheries were managed through the ineffective regulation of fishermen. Quotas were set for fish stocks under scientific guidance but the only way this was policed was through infrequent reporting on fish catches landed by fishermen. Policing was in the hands of member states. In the case of Ireland little interest was paid to the exploits of the fishing industry. Up until six years ago there was only one fisheries officer in Castletownbere. A fishermen in Castletownbere told me that until then the quota was seen by fishermen as a 'worthless piece of paper'. As the preservation of fish stocks becomes the principle focus of fisheries management fishermen are being subjected to more drastic policing measures.

In 2003-2005 a program to target misreporting of fish catches was introduced by the European Commission. This resulted in the threat, and in some cases application, of large sanctions for member states that were found to be ineffectively policing their fisheries. Ireland was one country heavily fined with the result that a new division of the fisheries, the Sea Fisheries Protection Authority (SFPA), was established in 2006. Overnight the number of fisheries officers in Castletownbere went from one to thirteen. A special building was built to house them on the pier. Fishermen who had never been stopped or checked before suddenly found that every time they came into port they were searched. Houses were raided by the fraud squad without warning.

Under the new fisheries bill that established the SFPA infringements of fishing quotas and unreported catches were treated as criminal acts, a situation which continues to exist today. This means that incorrect entries in logbooks can result in a criminal charge, a massive worry for many fishermen I met who have children living in America. I was told that some older fishermen who were fined large amounts for relatively small infringements found the controls so stressful that they left the fisheries almost immediately. I was told of a man who had fished for 40 years who faced a charge of 25,000 euro for being 400kg over quota for monkfish. He gave up fishing immediately because he couldn't deal with the fear of coming into harbor and being harassed. Another man who had left the fishing industry some years earlier to set up a mussel farm told me that the situation was like 'Belfast in the 70s'. At one point the words 'Scum out' were painted on the side of the SFPA building for all to see. Even Gerry, a local fisheries manager working for BIM, thought that the response by the government, driven by the

EU, was extraordinary:

These guys are under huge pressure. you've got fellows here being raided by fraud squad. huge, huge governmental pressure being applied on to fishermen. The likes of which you wouldn't see against drug gangs...at the end of the day you wonder where it's all going. Is it being driven by EU, in a not overt way, to slowly apply more and more pressure to manage an exit from the fishery for a lot of these fellows? (Owens 19/05/09).

While the heavy hand of the SFPA has softened since 2006-7 the pressures being exerted on fishermen are continuing in other forms. In 2011 Commissioner Damanaki reiterated her commitment to a 'zero tolerance' policy towards illegal fishing as a new harmonised control system for the monitoring and tracing of fish within Europe was made operational. This entails the extension of new technologies: the Vessel Monitoring System (VMS), the Automated Identification System (AIS), the Electronic Reporting System (ERS), the Vessel Detection System (VDS). These technologies are to assist in a 'comprehensive risk analysis' enabling systematic cross checks between sets of automated data so as to identify sources of irregularity. Commissioner Damanki has said: "[t]he new system ensures traceability throughout the whole chain from the time when the fish is caught until it reaches the consumer. Member states' authorities can spot wrongdoings at any point in the market chain, and trace them back to the culprit" (Damanaki 2011b). She went on: "[w]e can no longer allow even a small minority of fishermen to ignore the rules, and get away with it. Apart from being unfair this also undermines conservation efforts; it disrupts markets with unfair competition; it penalises law-abiding fishermen and chokes the circle of compliance; *and, most importantly, it destroys fish stocks*" [my italics] (Damanaki 2011b). The sanctions for those who do not comply are not only directed at the individual 'culprit' but can, where the control system of the member state appears ineffective, include the suspension or withdrawal of EU funds and the reduction of quotas and fishing effort across the national industry. In response to Gerry's query about it being a way to force the exit of fishermen from the fishery the EU has almost stated this explicitly:

As the future control system will contribute to ensuring that only legal fish will be caught, the lack of available quotas will entail a concentration of the fleet by market forces until it reaches a level that allows all remaining

vessels to make a living on the basis of lawful fishing opportunities. The vicious circle of fishing vessels having to fish excessively for their economic survival, as elaborated before, would be broken (CEC 2008a : 10).

In other words the enforcement of new regulations deriving their authority from the priority of environmental or biological concerns is central to the rationalization of the fishing industry. One of the most significant 'levers' in this regard is the 'precautionary principle'. While this contentious management tool has been part of European environmental policy since 2000 its first application in the fisheries was only last year. The precautionary approach holds that in situations where scientific data is insufficient to develop an effective management plan then the precautionary principle requires 'proportional' action be taken in order to prevent a predicted outcome, such as the collapse of a fish stock. It is a form of risk management: to stop an event before it happens, to predict, without sufficient information, the likelihood of something happening. In the fisheries, where the status of 50% of commercial fish stocks is unknown, the applicability of such a measure is obvious. It was used for the first time last year in area VIA off the coast of Scotland and Northern Ireland. Overnight their total allowable catch was cut by 25% and their allocation of days at sea was cut by the same. As Dr. Same Lee, the scientist who explained this to me, said, these cuts essentially meant that a quarter of the fleet were prevented from making a living, a set back that they are unlikely to recover from.

'Responsibilising' fishermen

At the same time as the regulatory environment is becoming increasingly difficult individual fishermen are being encouraged to be pro-active in 'differentiating' themselves in terms of their environmental conduct. This is characteristic of neoliberal governance which targets the individual as the site through which new rationalities, in this case around the environment, can be realized. In order for fishermen to 'differentiate' themselves from other fishermen 'technologies of representation', as I call them, are being introduced which enable fishermen to account for their activities.

In 2010 the Environmental Management System (EMS) was introduced by the Irish government through BIM as a way for Irish fishermen to demonstrate that they were

fishing responsibly. In the fisheries such initiatives have been targeted as one of the few areas receiving funding from the EU.³¹ Physically, the EMS consists of a booklet, a little bigger than A4, laid out in 14 chapters or sections covering every aspect of a fisherman's environmental, economic and community 'performance', including fuelling operations and maintenance; hygiene management; fishing practices; food safety and quality; waste management; occupational health and safety; communication and public perception; sustainable fisheries management and research. Within the manual, in each section, there are suggested actions, timelines, worksheets and space for notes. There are no set requirements in the EMS, the objective is simply to allow individual fishermen to record what they do.

The EMS was developed by Seafood Services Australia (SSA) as a means of encouraging the Australian fishing industry to embrace sustainability as an 'opportunity'. On their website they state "[o]ur ability to demonstrate that we are utilizing the natural resources used by fisheries and aquaculture in a sustainable, responsible way is a cornerstone of our industry's future... It is the key to our future access to these natural resources and the livelihoods of current and future generations of seafood industry operators." As Jean O' Sullivan from BIM told me:

They (the Australians) took the whole thing of empowerment. The only way you'll drive change is by empowering the institute to change. If it's top down it's just another layer of legislation: you must do this because the law says so. It always drives the lowest common denominator, whereas what you really want to do is to try and increase the environmental performance, not just for the environment's sake but for the fisherman's sake. So their outline is that you actually put the fisherman central to the process. It's not about the environment, which can sound very callous, but if you put them there first and say *a function of their livelihood is protecting the environment* that's a much better reason to respect the environment or maximise the environment than saying it comes first and we don't care about your livelihood. So call it... it's a human... looking at the human element of what they do and how they do it [my italics] (O'Sullivan 30/06/09).

³¹ By 2012 BIM aims to have 40,000 tonnes of Irish seafood 'differentiated' through eco-labels as 'uniquely Irish' for the market. This relies on 100 fishermen and 150 fish farms participating in environmental audit programs.

This theme of 'empowering' individual fishermen is central to the discourse around the EMS. Understood in the context of the fisheries the re-configuration of governance relations requires the harnessing of individual capacities within the more general consensus of sustainability, articulated by Jean O'Sullivan as "making the environment a function of the fisherman's work". Burchell writes that "[t]his might be described as a new form of "responsibilization" corresponding to the new forms in which the governed are encouraged, freely and rationally, to conduct themselves" (Burchell 1996 : 29). As the activities of fishermen are opened to more scrutiny, as they are problematised as an object of government, they "come to be understood and targeted as an active participant in the activity of work, not merely as an instrument of production but as a person: a human being realizing his or her self through work" (Miller and Rose 1995 : 430).

The ultimate aim of these self-auditing programs is to enable fishermen to achieve international accreditation such as the Marine Stewardship Council (MSC). But it is also a way for fishermen to 'demonstrate' that they are a responsible 'stakeholder' in order to maintain their access to marine resources. The flexibility of the EMS is considered one of its advantages. It enables fishermen to adopt a 'language' which can be used by the fishermen to insert themselves into various different contexts.

Jean O'Sullivan told me of a meeting she had with a fisheries cooperative in the West of Ireland. They had wanted to work on a marketing plan for their crab by using the EMS, which they had heard of through a third party. She asked them what made their crab different. They didn't know what to say; they had no way of showing or proving how they caught the crab, how pure the waters were, how healthy the fish stock was. By engaging with the EMS, by committing to better fishing and handling practices and, most importantly, documenting these practices, the fishermen could provide physical proof of their unique fishing practice and product; they could have a 'book of good deeds'. It was not just a matter of translating this documentation into a label, though this was important, but of raising the confidence of the fishermen by 'giving them something to bargain with'. At the end of the meeting, which had begun as a means to gain added value for their crab, the fishermen were talking about the Special Area of Conservation in which they fished. This geographical demarcation threatened their future prospects of access to the fishing resource. By having the documentation provided through the EMS, showing their

sustainable fishing practices etc., they would be able to engage in future consultations and, the hope was, defend their position as 'environmental fishermen'.

The end of the line

The EMS is designed to equip fishermen with a 'language' so that they can represent themselves within different contexts. These contexts are not simply those created by demanding regulatory requirements but also, as the above example shows, the emerging market for 'differentiated' products. In this section I will describe how the need for fishermen to 'differentiate' themselves overlaps with a shift in economic production away from supply-focussed activities, such as fishing, to market-oriented production which can capitalize on the demand for environmentally certified products. In this way the 're-structuring' of the fisheries can be seen as an example of how neoliberal re-configuration of socio-natural relations involve more than just the 'retreat of the state' or the 'advance of the market'. The consequence of these developments is the gradual displacement of fishing as a source of value in economic and environmental terms.

Displacing value

The head of the Castletownbere co-op, John Nolan, summed up the economic challenges which local fishermen in Castletownbere were facing:

One of the products we're coming up with at the moment is panga fillets from Vietnam. They're two euro a kilo for the fillet delivered to any mainland European city. They are produced from freshwater farming in Vietnam...You also have Nile perch fillets coming in from Uganda, Lake Victoria. You have Tilapia fillets coming in from Indonesia, never mind the hake coming in from South Africa and the hake from Chile - we sold a boat recently to a company in South Africa and the hake quota for the whole of the Irish fleet is about 1200 tons, and one boat in South Africa has 30, 000 tons of a quota. So its just a question of supply and demand...So Europe is swamped with imported fish. and we are just left to survive and we're not surviving. The industry is in terminal decline. Sixty percent of the fleet are in interest only with the bank. Last year we had a huge oil crisis. In the last five years forty boats took decommissioning, sold to get out of the business. So we would be employing four hundred full time fishermen at sea five years ago. We now only employ 180 (Nolan 13/05/09).

In response to a question I raised about cheap, imported fish products being a principal obstacle to a sustainable fishing industry, a question that animated many of the fishermen I had spoken to, Jean O'Sullivan in BIM replied:

Fishermen as a livelihood, other consumers, they are accepting globalization of products. The tilapia, warm water prawns etc. It's accepted as the globalization of commodities. But that doesn't help the small fishermen, so basically it's only in their power to stop it. Now it's up to us to try to enable them to provide a standard that they can say this is differentiated, as in it's done by quality, provenance, responsible practice or by 'I have a seafood EMS' (O'Sullivan 30/06/09).

The EMS is a good example of how environmental 'responsibilization' overlaps with a discourse of entrepreneurialism. Rather than questioning the 'reality' of a globalized market the EMS aim to provide a way for fishermen to become *more* competitive on the basis of 'environmental credentials'.

This echoes the Irish government's strategy for the fisheries. The Cawley Report (2006) and the Sea Change document (2006) both articulate the need for a shift away from economic activities based on the extraction of marine resources to a more strategic industry orientated towards the demands of the market.³² In the foreword to the Sea Change document the Minister for Communications, Marine and Natural Resources Noel Dempsey calls for a shift in "our traditional view of the sector from one which is primarily associated with food harvesting to one which is multifaceted and also contributes towards energy, health, tourism and leisure, transport and environmental well being" (DCMNR 2006 : foreword).³³ The Cawley Report acknowledges that achieving this vision of a

³² This is in line with EU policy. The economic pillar of this IMP, laid out in the Lisbon agenda (2000), is to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. The European seas are understood to be a prime new territory for this development. The seas are a frontier into which the knowledge economy can expand, providing a rich source of potential. At a recent speech to the European Economic and Social Committee on the 'future economics of the sea' Commissioner Damanaki said: "We know that there is clearly scope for the oceans, seas and coasts to unlock new sustainable sources of growth. And we must be capable of channelling these activities into industrial applications and ensuring that they benefit society. It is what I like to call "Blue Growth"." (Damanaki 2011a).

³³ The same strategy is expressed in the "Sea Change" document: "In seeking to re-position the marine sector in the knowledge economy, and to create entirely new opportunities for the future, it is also essential to look beyond the development of existing marine industries, activities and sub-sectors" (Sea Change 2006 : 12).

'competitive and market-focused seafood industry' will entail a 'painful transition' as the fundamental restructuring of the industry, from point of catch to onshore processing, distribution and marketing, takes shape (Cawley Report 2006).

The new minister, Simon Coveney, while expressing his support for the industry has stated that his aim is to ensure "there is still an industry in five years." The question is what kind of industry this will be. Emphasis on the global market as the 'guiding light' of the industry opens up an entirely different set of relations and skills, evinced in the re-branding over recent years of the fishing industry as the seafood industry. BIM aims to make 1 billion euro in sales and create an extra 3000 jobs in the seafood industry by 2020. This is at a time when the fishing fleet will have to be drastically reduced to meet the 2020 targets of 'healthy habitats' in all marine waters as outlined in the EU Marine Framework Directive. Value in the seafood industry must be generated in new ways, through new economies of scale and new global markets. As Jason Whooley, CEO of BIM, stated:

If we can begin to create a shift in focus from being a 'stand alone' fisherman to seeing ourselves as a 'supplier' selling his seafood to a major international market that has huge demand for this product, the opportunities for maximising the return to fishermen become more tangible. *Fishermen have to begin to see their livelihood as a business with a major potential.* The traditional routes for fishermen to bring their products to market have to be looked at in light of developing global trends if Ireland is to remain a strong player in the world seafood market. BIM are keen to begin this debate and assist our industry to make the right decisions to ensure they don't see this major business potential lost [my italics] (Whooley 2011).

It is becoming clear that only those who are able to represent themselves are going to be able to benefit from the 'opportunities' of a global market and transnational environmental regulations. I was told that 'you can't fish well and do the other things on land.' The shift from 'supply-oriented' fishing industry to a 'market-oriented' seafood industry involved more than the development of marketing knowledge. As fishermen are prevented from catching fish the value is shifted from material to immaterial processes of production. In this way economic competition in a global market is not questioned within the 're-structuring' of the fisheries, rather it is shifted onto other activities, activities which are not involved in the production of local resources but in their processing and

distribution.

A local company in Castletownbere employs one hundred people in its processing factory. While it buys fish, mostly shellfish, from local fishermen it also imports fish from Iceland, processes it and sells it on. It has won several awards from BIM and secures funding on the basis of its important economic role and environmental credentials. The success of the company emerges from an attention towards the market (Callon 2002). In this economic rationality importing fish from Iceland to sell to Japan makes 'sense'. In a 'network' society, as Barry puts it, the successful actor is the one "who has the time to keep continually informed and in touch, and who is able to communicate and travel anywhere for his business. He is not rooted in a place, but in a web of extended connections; able to draw things together without ever forming them into a vision of the whole and without having need to do so" (Barry 2001 : 13).

In a similar way technologies of representation such as the EMS function within transnational accreditation programs like the MSC. These labels say less about the immediate, material relations of sustainability enacted within a fishery and the community which relies on income from fishing than it does about technical criteria established by international bodies mediated through various state and non-state actors. Once value is imbued in the appearance of an activity rather than the activity itself it is inevitable that a 'short-circuiting' will take place, and the disparity between a local, material reality and a set of representations circulating in international regimes of visibility will become more pronounced. As Mark Fisher, responding to this same paradox writes, the drive to

assess the importance of workers and to measure forms of labour which, by their nature, are resistant to quantification, has inevitably required additional layers of management and bureaucracy. What we have is not a direct comparison of workers' performance or output, but a comparison between the audited representation of that performance and output. Inevitably, a short-circuiting occurs, and work becomes geared towards the generation and massaging of representations rather than to the official goals of the work itself (Fisher 2009 : 42).

The fantasy of a 'market-oriented' fishing industry removes the material basis on which fishermen formerly relied, displacing value onto de-materialized, representational forms, whether in terms of 'demonstrating' responsible fishing within environmental

networks, or in 'differentiating' products on a global market. In this way a 'local' company, like the one described above, is part of a new configuration which appears to deliver on the values of cooperation, differentiation and environmental and community value, while at the same time achieving this through the 'old' values of competition, homogenization and profit-maximization. The disparity between commitments to sustainability and the reality of ongoing competition which undermines the possibility of any alternative ways of producing and valuing the natural world is not even hidden or obscured. Several people involved in the management of the fisheries told me that auditing initiatives like the EMS were 'meaningless' unless they were able to sustain livelihoods and the marine environment. At the same time the 'successful' processing company was understood by everyone I met in Castletownbere to be 'playing the game'. While many respected what the two local men had done and were grateful for the employment it provided, both directly in the factory and through the routes to market provided for inshore fishermen, there was also a recognition that the success came at a price, an attitude perhaps best summed up by a comment made about the contributions this local company gave to the local RNLI: 'they are generous but that money was taken from somewhere else'.

Ecological modernisation

While it could be argued that some of this local resentment came from local jealousy or bitterness, issues I did not go in to in my research, there is undoubtedly a more generic sense in which the 're-structuring' of the fisheries in line with environmental sustainability does not question the imperative to compete in a global economy. As Simon Casey put it,

It (EMS) is a way of arming themselves against an invasion like that of cheap products from countries with cheap labour. A lot of those products are probably to do with aquaculture, like catfish, tilapia. Then you've got imports of cod from Iceland, Faroes and flights going into Cork. Part of the argument is ban the imports, where is the EU doing anything about this? But there's another side of the coin: it's a free market economy so you can't stop that happening. What you have to do is fight against it. And this is one way of fighting against it, as is a standard, as are the NGOs convincing consumers to demand a particular level of responsibility for a product (Casey 30/06/09).

It is no longer enough for the fishermen to just 'mind their business', as Simon Casey of BIM made clear: "[e]ssentially the international bar is rising and all fishermen have to rise with it and those who don't are going to miss out and be left behind" (Casey 30/06/09). When I asked why the EMS scheme had not been taken up more enthusiastically Simon Casey suggested that fishermen didn't have the 'full picture'. He spoke of how they repeat the 'old Father Ted of ban the imports'. This depiction was familiar: fishermen were stubborn, unwilling to change their ways in the face of the inevitable trajectory of free market capitalism. The 'subjective' choice or voluntarism is set in contrast to the apparent 'objectivity' of 'market forces', forces that individual fishermen are encouraged to simply 'arm' themselves against. The hope is that by encouraging a different economy based on criteria of environmental or sustainable standards the 'old' economy that has resulted in overfishing will be replaced. But this new 'economy' is naively assumed to emerge on the basis of transparent accreditation schemes and networks that connect small producers and individual consumers.

In line with ecological modernisation there is no fundamental contradiction between free market capitalism and environmental sustainability.³⁴ Indeed, these two frames are not only compatible but complementary as new economic opportunities arise around environmental management and traceability (Mansfield 2007). These two frames are the arbiters of what kinds of activities and subjects are included into the future and those which are not. They are the consensus around which a transition from the 'unsustainable' past to the 'sustainable' future is to be worked out (Mol and Sonnenfeld 2000).

Re-structuring the fisheries does not just describe a neutral shift from an unsustainable mode of production to a sustainable one. The unfolding narrative of ecological modernisation involves "the implantation of particular modes of calculation into agents, the supplanting of certain norms, such as those of service, and dedication, by others, such as those of competition, quality and customer demand" (Rose 2006 : 153).³⁵

³⁴ As the 2009 document states, "While the profit motive and ecological sustainability may conflict in the short term, in the medium and long term they form a powerfully virtuous circle, if only we can get them to work together" (CEC 2009 : 34).

³⁵ Callon makes a similar comment in his essay on the growing power of markets: "Market framing constitutes powerful mechanisms of exclusion, for to frame means to select, to sever links and finally to make some trajectories (at least temporarily) irreversible. Certain worlds, with their goods, agents and

The skipper and co-owner of a whitefish trawler told me that the fisheries were in a period of 'transition' and that in the near future there would be far fewer boats fishing far more efficiently. He knew that only those who were 'proactive' would survive: "we have to do something, we're at a standstill: it is survival of the fittest". Ciaran offers an example of a fisherman who is willing to 'adapt'. This illustrates how the re-structuring of the fisheries understood as a new form of enclosure is not simply about exclusion but the concomitant constituting of new subjects through "inscription in codes of behavior and habits" (Read 2002: 46). At the same time as new subjects are modified, other subjectivities are by extension excluded.

While fishermen are enjoined to think of themselves as autonomous, rational actors with capacities for control and responsibilities for their own futures the distribution of those capacities are not equal (Papadopoulos and Stephenson 2006 : 11). The new narrative of modernisation requires a shift in relations, a loss of autonomy, a dependency on global regulatory authorities and markets, and a disconnection from a local, material world in which many still carry out their livelihood. By pitting the fishermen, as individuals and as a collective, against their 'less sustainable' competitors at home and abroad, the problems are "not the result of the 'system', of unevenly distributed power relations, of the networks of control and influence, of rampant injustices and inequalities, of the police order and its non-egalitarian distribution of functions and places or of a fatal flow inscribed in the system, but are blamed on an outsider" (Swyngedouw 2009 : 612).

Conclusion

The fisheries offer a good example of how the growing concern to stop forms of ecological destruction can give rise to new forms of policing and the exclusion of subjects both through explicit forms of regulation and through a more general and pervasive shift in the way natural resources are perceived and valued and, by extension, the way subjects relate to and produce them. This has been called the 'neoliberalization of nature' (Heynen and Robbins 2005; Heynen *et al.* 2007). As I have outlined in this chapter this process is not simply imposed from above, nor can it be understood in terms of the 'retreat of the

attachments, are chosen above others which are consequently threatened with extinction" (Callon 2007 : 140).

state' or the 'advance of the market' (Lemke 2002). The new enclosures operate through a bio-economic rationale derived from the assumed need to preserve a single nature understood in terms of biological productivity.

In this chapter I took Foucault's analysis of grain scarcity and the emergence of biopolitics in the 18th century as a point of departure for examining how the prioritization of natural life defined in terms of productivity opens up the possibility for new forms of power. In the fisheries the crisis of overfishing presents a similar problem for government. In section one I described how the situation has been framed as a crisis of production (the impasse of industrial capitalism) and as a crisis of government (the inefficacy of institutional arrangements in the past). The response has been, what I called, the 'preservationist turn' as the health of fish stocks has become the point around which the re-structuring of the fisheries can unfold.

I continued the analogy of the 18th century in section two by identifying how the rise of the liberal subject paralleled the rise of the illiberal subject. While the 18th century saw the rise of biopolitics and a transformation in the way the natural world was understood, valued and produced, it also saw the enclosure of common lands justified on the basis of the same liberal political economy. I argued that a similar distinction is emerging in the fisheries. As the fisheries resources are understood as a biological asset in need of preservation the roles and responsibilities of fishermen have changed. Within an ethical/ ecological regime they are increasingly having to demonstrate that they are fishing responsibly. On one hand this takes the form of unprecedented policing and surveillance, and on the other it takes the form of new forms of 'responsibilization' realised through, what I called, 'technologies of representation'.

The 'preservationist turn' and the 'responsibilization' of individual fishermen dovetail with shifts in economic production. In section three I showed how value is being displaced from the material activity of fishing to representational modes of value realized through processing and marketing networks. This re-configuration of value does nothing to question the ongoing global market competition which has been instrumental in the overfishing of resources in the past. Instead, the economic motive becomes an integral part of the re-structuring of the fisheries as value is displaced from material activities, such as fishing, to immaterial activities oriented by market demand.

Chapter Three

Post-politics and beyond

We have to attack head-on the key question: Why is there no storming of the Bastille because of the environmental destruction threatening mankind, why no Red October of ecology? Why have the most pressing issues of our time- climate change and ecological crisis- not been met with the same enthusiasm, energy, optimism, ideals and forward-looking democratic spirit as the past tragedies of poverty, tyranny and war?" (Beck 2010 : 254).

Introduction

In this chapter I argue that a key characteristic of the politics of environmental sustainability is the absence of any debate over what sustainability is or could be. Once the 'need' to preserve and manage biological life has been identified as the minimal consensus around which different actors can agree the only questions that remain are how best to achieve that goal. Relevant stakeholders are brought together on the basis of the roles they can play in ensuring the ongoing productivity of the environment against the backdrop of the global market. Sustainability comes to describe an ongoing process of responsive, localized problem solving guided by the need to balance available resources to fishing effort. The framing of politics as a technical activity for generating consensus around pre-defined goals of environmental and economic sustainability is characteristic of 'second wave' ecological modernisation (Warner 2010; Mol and Spaargen 2000; Beck 2010).

In section one I describe how this post-political consensus is unfolding in the fisheries. As outlined in the last chapter the basis for this consensus is the need to preserve the fish stocks, and more broadly the marine environment in general. While in the past conflicts existed between fishermen, scientists and the state the 'common' goal of ensuring the productivity of fish stocks creates a space within which actors are brought together in order to work out appropriate solutions. Instead of beginning with a pre-defined strategy of how each fishery will be managed and what roles each actor will play, the tendency

now is to bring together the different stakeholders first in order to work together through negotiated, mutually agreed decisions on how to achieve bio-economic sustainability. This has become evident in the emphasis being placed on better governance rather than better information or policy.

This process of consensual, localized problem-solving appears more democratic and inclusive. However the new space of governance has already been framed by a single, 'common' environment which needs to be preserved and managed for the good of 'all present and future generations' (Brundtland Report 1987). There is no debate over this 'common' future. Fishermen are included on the basis of the 'stake' they hold in this 'common' environment. In other words how productive they can be as a 'steward' while at the same time making a viable income. 'Stakes' are framed by the particular problem being addressed. There is no debate over the initial way of framing the problem.

In section two I argue that the technical management of the fisheries through forms of stakeholder governance can be described as post-politics. This is characteristic of ecological modernisation but can also be traced in more radical thinking within political ecology. A shared assumption of these different political positions is that politics describes a process by which 'externalities' are brought within a pre-existing collective. This does not account for why certain entities are included and others are not. In contrast I argue for a way of thinking about politics which is capable of going beyond the apparent impasse of the consensual politics of ecological modernisation. I draw on the political thought of Jacques Ranciere who helps conceptualise politics in terms of the appearance of a new political subject outside of what is given in any situation. This new political subject is not pre-existing and does not claim to have an alternative model of society. This political subject appears through a refusal of the role or place which they have been identified with. This becomes understandable in terms of the unfolding narrative of ecological modernisation. Within the single, bio-economic consensus on the 'common' environment the roles which communities, such as fishermen, occupy are determined in advance. Within this narrative communities are encouraged to 'adapt' to a de-materialised, technically administered future or be left behind as unfortunate victims of historical progress. An alternative politics of sustainability attunes to the moments when a community rejects this narrative by articulating, in the process, a different way of naming

the world.

In section three I move beyond post-politics in an effort to re-think where such excessive subjectivities emerge from. While the appearance of a political subjectivity is rare and impossible to predict in advance I argue that such a moments do not emerge from nothing. Turning to continuous experience I suggest that the everyday, taken for granted ways in which individuals encounter the world opens up experiences that escape normative interpretations of subjectivity and the world. In my fieldwork I encountered fishermen who were not individual subjects operating on a 'dumb', natural world. There was meaning and value beyond a bio-economic reading of the world. While these other experiences are not visible they are already part of different ecological commons, different ways of imagining how we can relate to and produce our material lives. At the same time they are not fully formed or coherent. They are not the answer to the ecological crises. Experiences which escape the logic and value of existing regimes of visibility are just the beginning of the possibility of a different socio-ecological trajectory.

Towards consensus in fisheries governance

In this section I describe how fisheries governance is articulated as a shift from a prescriptive, top-down form of management to an open, participatory form of stakeholder governance. This shift is expressed most clearly in the Integrated Maritime Policy (IMP) which simultaneously identifies a 'common' maritime environment and the many 'parts' which play a role within it. While sustainability is framed by the goal of preserving the biological health of fish stocks there is no pre-defined strategy on how to achieve this. With no external authority prescribing how the fisheries should be managed the emphasis is on building relations with local actors in order to find the most appropriate solutions to specific, local problems. Having framed the question of sustainability as a bio-economic problem the only questions that are addressed are how to maintain biological and economic productivity.

We are all parts of the common

Until recently the fisheries were managed as a limited set of concerns relating to the economic viability of the industry. The fishing industry was regulated directly through

a top-down, command and control institutional arrangement overseen by the EU but effectively managed and policed through the Irish state. As concerns over the fish stocks, and marine environment in general, have grown this top-down, sectoral approach has come under strong criticism (Symes 2007). The Common Fisheries Policy (CFP) has been described as a 'leviathan' that is unable to respond to the complexities of geographically, economically and ecologically diverse fisheries sector. Ineffective governance has meant that scientific data and policy decisions have failed to create sustainable fisheries. Relations between the fishing industry, scientists and politicians have been characterized by conflict and a lack of communication (See Dietz *et al.* 2003; Perry *et al.* 2010L Osterblom 2011). While these criticisms have been aimed at the management of the fisheries there is a broader move away from sectoral interests as the marine environment comes to be seen as a whole. Over the past ten years there have been sustained calls for more 'joined up thinking' in relation to the management of the fisheries as part of an 'oceans governance regime' (Sissenwine and Symes 2007).

The principle policy instrument now articulating these shifts is the Integrated Maritime Policy (IMP 2007). The IMP now brings sectoral policy instruments, such as the Common Fisheries Policy (CFP), within its broader remit. The defining element of the IMP is the simultaneous expression of the *singular* 'common' seas alongside the *many* 'parts' which have a role to play within it: a policy that 'embraces *all* aspects of the oceans and seas.' The apparent contradiction or tension between 'common' goals and 'particular' interests is addressed explicitly in the IMP document: "[t]o regulate maritime activities in the interest of worldwide sustainable development necessitates developing universally applicable rules. Yet each part of the oceans and seas is different and may require its own more specific rules and administration. This apparent contradiction illustrates why the global nature of the oceans is such a challenge to policy-makers" (CEC 2006 : 6).³⁶ The IMP seeks to establish the basic framework within which diversity can be cultivated and conflict forestalled, on the basis of a number of common principles. The two main principles are a commitment to the 'smart' economy laid out in the Lisbon agenda and the commitment to achieving 'healthy' marine ecosystems by 2015. While these two goals

³⁶ This same problem or tension has been identified within the broader context of environmental crises (See Ward 2010)

provide the horizon of environmental sustainability the process of arriving at them is being coordinated through new relations of governance.

Economic competitiveness and environmental sustainability provide the frame within which an open space of governance can appear. Rather than each sector, such as the fisheries, being managed directly through a top-down hierarchy of state and scientific institutions the common objectives outlined in the IMP allow for new combinations of actors working together to achieve the preservation of fish stocks and an economically viable fishing industry. As part of this tendency new actors have appeared beyond the parameters of the national state and the EU. On one hand non-state actors such as international NGOs and private businesses³⁷, and on the other local resource users, in this case the fishing industry, who are given more roles and responsibilities in the management of their own fisheries.

Governance is marked by a decline in formal representative politics and the supposed rise of a highly developed, well-informed civil society operating through the free and open negotiation of different interests (Kooiman et al 2008; Klooster 2010; Drummond and Marsden 1995).³⁸ This is based on a complex relationship between an undefined whole, a sustainable global future, and a subset of stakeholders defined through their ability to adapt, to situate themselves in relation to changing regulatory and market demands. In place of clear or decisive rules government becomes a process of reconciliation, an apolitical sphere in which diverse actors can generate consensus through open dialogue and communication (Blowers 2003).³⁹

³⁷ These new actors come from a range of different perspectives. They are not elected by citizens and represent the interests of specific groups. For example the coalition of environmental organisations called OCEAN2012 based in Brussels. This umbrella group is funded by the Oak Foundation, the Tubney Charitable Trust and the Pew Charitable Trust. OCEAN2012 have six full paid staff operating in Brussels as well as money to pay for consultations and scientific research. They were established to lobby the European Commission on issues to do with the reform of the Common Fisheries Policy in 2012. As well as environmental NGOs commercial interests, such as Unilever who set up the international Marine Stewardship Council accreditation scheme for sustainable fish, carry significant weight in fisheries management.

³⁸ This opens room for an array of new actors to play a part in fisheries management. Labeling schemes which also exist in the fisheries offers a good example of how various actors come to interact with one another. Voluntary certification systems such as the MSC involve multiple stakeholders in commodity networks, including an international NGO, multi-national corporation, various state agencies, fishermen, processors, retailers, and consumers.

³⁹ Maarten Hajer calls this the 'institutional void', a space undetermined by any clear rules or norms (Hajer 1996).

At the heart of this governance approach is the idea of a neutral space that is not monopolized or translated by any one particular actor; all are equal actors around the table working towards mutually agreed ends. A consistent argument which I encountered through meetings with fisheries scientists and managers was the need to generate 'spaces' and 'forms' where fishermen could participate in decision-making and in the management of their own fishery.⁴⁰ In order for this to work better relations have to be developed between the fishing industry, the state and science. Dave Murphy, a researcher at a recently established marine research centre who had worked in fisheries management for fifteen years, summed up this commitment to finding a 'common language':

[A Common language] I don't think it can be created overnight. That's what I'm interested in...governance can't solve those problems unless there is a common language and consensus of values and beliefs developing. They don't have to be identical but there has to be a bridging of the gap between positions. And you also have this position of fixed positions. A lot of the stakeholders have very fixed positions and I think there's a huge difference between consultation and participation (McCarthy 28/05/09).

Consensus means a situation in which the people involved, the stakeholders, are willing to come forward and be part of a collective process of problem-solving. By coming together to discuss what can be done, and what role each can play, questions of difference can be resolved within a common framework. Rather than government having to regulate fishermen they speak now of being part of a cooperative process in which a shared vision of the future can emerge over time. As Schmitter argues, governance is a process of conflict-resolution rather than a static or nameable constellation of actors: “[g]overnance is a method/ mechanism for dealing with a broad range of problems/ conflicts in which actors regularly arrive at mutually satisfactory and binding decisions by negotiating with each other and co-operating in the implementation of these decisions” (Schmitter 2002 : 52). A 'consensus of values and beliefs' is now emerging around the priority of preserving fish stocks. Once this is established as a common objective the space

⁴⁰ “Progress...will depend to a great extent on unravelling the communication and collaborative processes that affect fisheries management. Deciding who participates, how information bases are used, how conflicts are resolved and how agreement is reached are the critical issues that must be taken forward to the next millennium” (Crean 2001: 251).

can be opened up to negotiate and experiment with the most effective ways of managing the fish stocks, of managing access to the fishery, of gaining accreditation for fish products, of improving efficiencies of fishing activity. The 'common' environment provides the ground on which all can work together for efficient resource management (Lockie 1999).

From fishermen to stakeholders

In the past fishermen were granted access to fisheries resources on the minimal basis that they would comply with state and European law. In the emerging governance regimes they are not just citizens of the law but stakeholders who are included within governance networks on the basis of the 'stakes' which they are perceived to hold. These 'stakes' carry new roles and responsibilities. The framing of the initial problem determines what 'stakes' can be brought to the table. Fishermen are rapidly having to become flexible stakeholders capable of 'negotiating' their position within often opaque transnational governance networks. In chapters four and five I will look in more detail at the ways in which this participatory, devolved, consensual approach to fisheries management is taking place within community-managed access initiatives and industry-science collaborations. In this section I will describe the general characteristics of this form of stakeholder governance with some examples of the kinds of actors and processes which are involved.

Fishermen are identified as stakeholders on the basis of pre-defined problems. The common bio-economic problem is articulated within local settings as: 'how can we come together to ensure the biological productivity of this particular fish stock?' As I argue in chapters four and five this provides the starting point for different forms of governance within the area of negotiated access rights and the generation and use of scientific knowledge.

Governance entails an explicit reference to 'mechanisms' or 'organised' and coordinated activities appropriate to the solution of some specific problems. Unlike government, governance refers to 'policies' rather than 'politics' because it is not a binding decision-making structure. Its recipients are not 'the people' as collective political subject, but the 'population' that can be affected by global issues such as the environment, migration, or the use of natural resources (Urbinati 2003 : 80).

Once the problem has been defined as a bio-economic one the task of fishermen, scientists and fisheries managers is to address how best to resolve the problems within each local setting. Governance thus describes a process of local, technical problem-solving. Fishermen are principally being 'included' to perform technical roles in order to make the governance of the fisheries more effective within a prescribed vision of sustainability (Osterblom *et al.* 2011). In European policy this is characterized by the principle of subsidiarity. Subsidiarity dictates that decision-making should be carried out at 'the most appropriate' level. EU Commissioner Damanaki has described this in terms of the EU Commission being "as a lighthouse but member state regions and industry steering the ship" (Damanaki 2011a : 4). This effectively means shifting managerial tasks down to the fishing industry (Symes 2007). Commissioner Damanaki has articulated this explicitly: "[s]o, we need to enhance the aspect of de-centralized decision-making. *Issues that are merely technical do not belong to the political level*" [my italics] (Damanaki 2011b : 2).

As well as performing technical roles within EU regulatory frameworks fishermen are also engaging in more ambiguous and unaccountable transnational networks. As I outlined in the previous chapter technologies of representation such as the Environmental Management System (EMS) operate by enabling fishermen to insert themselves into different contexts. The main focus of the EMS is to achieve accreditation by the Marine Stewardship Council (MSC). The MSC was created in 1997 by Unilever, an Anglo-Dutch multinational corporation, and the World Wildlife Fund (WWF). It is the first worldwide certifying body and was set up to raise consumer concerns about declining fish stocks. Its principal tool is a standard or label that certifies fisheries which comply with the 31 performance indicators set out by the scheme.

How the fishery achieves the necessary standard is left open to the fishermen concerned. The certifier offers guidance and makes clear the necessary outcome but states that "the decision is yours on how to achieve the desired outcomes." But the requirements ensure that this is not just a straightforward process. To begin with the MSC requires that any fishery that applies for certification must have a 'fishery client'. This is a body that pays for the assessment and has legal standing, often a government agency, in Ireland's case BIM. The cost of the pre-assessment, full assessment and then annual audits is

estimated to be between 15,000 and 120,000 US dollars. Clearly this is difficult without either the help of the state or in rare circumstances where the fishery involved is highly rationalized and operating on a large scale.

The MSC offers a good example of the gap between what exists (a large number of individual fishermen operating in a mixed, marine environment) and what is required in the emerging regime of visibility (an identifiable set of fishermen operating in an identifiable fishery according to a set of globally defined criteria negotiated through various consultative bodies, stakeholders and the fishermen themselves). To reach the goal of accreditation not only requires substantial financial resources but also, more significantly, the insertion of various entities into a complex, prescriptive 'socio-technical network'. Voluntary certification systems such as the MSC offer a good example of how fisheries governance comprises an uncertain, technical network of multiple stakeholders, including NGOs, state agencies, producers and processors, retailers, and, ultimately, consumers.

At the same time this transnational network which fishermen, as stakeholders, are encouraged to insert themselves does not promise anything concrete in terms of returns to fishermen or sustainability. Just five years ago the MSC was presented as the best indicator of sustainable fish stocks. Recently it has come under criticism from a group of leading fisheries scientists and international NGOs (Ainley *et al.* 2010). In an article in *Nature* a team of six scientists supported by the Pew Foundation and Greenpeace, argued that the MSC needed more stringent standards and to crack down on loose interpretation of its rules. It also pointed out that between 2000 and 2004 it 'boomed' as it became a commercial interest (Wal-Mart declared that it would only sell MSC certified fish). The article stated that the MSC had to alter its process of assessment in order to avoid a potential financial incentive to certify large fisheries. It pointed to the lack of accreditation to low-impact, inshore fisheries.

The MSC remains the 'gold standard' for fishermen. In order to achieve it they need to be able to demonstrate that they are responsible 'stakeholders'. But the 'stakeholders' are those that 'fit' within the 're-structured' vision of the fishing sector: fewer operators working at a larger-scale, rationalized and profitable. As Swyngedouw writes, "[t]he new 'gestalt of scale' of governance has undoubtedly given a greater voice and

power to some organisations (of a particular kind - i.e. those who accept playing according to the rules set from within the leading elite networks)” (Swyngedouw 1999 : 2003).

Exclusion through inclusion

While the new governance relations appear to be more participatory and inclusive fishermen find themselves with less of a voice in determining the future of the fisheries. Stakeholder governance includes many more voices besides the fishermen. The inclusion of more stakeholders dilutes the capacity of any single stakeholder to have their voice heard. This is the ‘paradox of participation’⁴¹: the more stakeholders included the less capacity they have to be heard, the less role they have to play in the unfolding narrative of sustainability. At a time when the fisheries are acknowledged to be facing a series of complex and difficult problems the ‘inclusion’ of fishermen within the remit of the IMP effectively ensures that they will have to play a more active role in their own ‘re-structuring’ while at the same time having less of a say in the future of the marine environment.⁴² The governance of the fisheries is not giving fishermen a greater role in determining their future. The devolution of roles and responsibilities is generating an increasing sense of powerlessness on the part of the fishermen to do anything about a situation which many believe is unfair.

At the same time the articulation of fishermen as a ‘partial’ voice within a ‘common’ marine environment determines that they play a role in the preservation of the fisheries resources. Their right to fish is now predicated on a set of responsibilities. In the past fishermen didn’t have to account for their relationship to the fishery. Their livelihood and, in most cases, historical connection with the sea gave them all the right they needed. While fishermen didn’t ‘own’ the fisheries resource they were free to fish in it. As the marine environment is articulated as a ‘common’ resource for the good of all ‘present and

⁴¹ “The truth of the matter is fishers have progressively lost their decision-making capacity and political presence as they have had to compete with the viewpoints, objectives and strategies of other actors who have recently been invited to take a political part” (Suarez *et al.* 2008 : 323).

⁴² “Political modernisation and its ecological variant are, in many ways, even less democratic than the system they have supplanted. In theory, political modernisation urges the doctrine of consensus and purports to include a variety of interests. In reality it supports a system that is exclusive, elitist and unrepresentative, a condition described by Crouch (2000) as ‘post-democracy’” (Blowers 2003 : 67). Dryzek and Niemeyer argue that governance is not as accountable as formal, representative politics: “[n]etworked governance is almost impossible to render accountable in standard democratic terms because there is often no unique demos associated with a network” (Dryzek and Niemeyer 2008 : 485).

future generations' this right to fish is increasingly being seen as a privilege which must be justified. It is precisely because the seas are defined as 'common', beyond question, that fishermen must occupy a 'partial' role which works towards the continuing sustainability of a resource which does not belong to them but to an anonymous 'public' which not only exists in the present but extends indefinitely into the future ('the good of all present and future generations').⁴³ The authority of this empty claim on the common activates, or makes 'appear', the fishing industry as one stakeholder in the marine resource. Regardless of their history, community, experience the 'stake' which fishermen have in the marine environment is rendered equivalent to any other stakeholder, defined in technical terms.

Governance through the inclusion of stakeholders within consensual decision making processes does not offer much space for the voicing or imagining of radical alternatives to ecological modernisation. The need to work together to preserve and managed the common environment channels energy towards the solving of local problems. This is an ongoing process which does not question the bio-economic rationale which provokes the need for effective action on the ground. At the same time the absence of any single agency or actor claiming to speak for Nature or the sustainable future leads to the belief that there is nothing to challenge, that a common, sustainable future can be reached through mutual agreement and the mediation of interests.

In this situation it becomes difficult to resist the discourse of the 'common' marine environment without appearing as a self-interested community without a concern for the 'common good'. Yet within the new configurations of environmental governance the absence of anyone being able to speak for the 'common good' is characteristic. The 'neutral' space of governance is not occupied by anyone - an elected government, a particular community, scientists. Sustainability describes an empty process of negotiation (as in the MSC) or localized, technical problem solving (as in devolved governance relations). Sustainability is thus realized or embodied in the particular, through

⁴³ As David Butcher of WWF stated: "[w]e need to get over the notion that fisheries resources are the sole concern of the fishing industry. At the end of the day, fisheries are a public resource and decision-making must therefore take this public interest into account" (Mikalsen 2001). Interestingly, a similar argument was made three hundred years ago during the enclosures when Isaak Walton wrote: "That which is every bodies business, is no bodies business" (Walton and Cotton 2000 : 61). The 'common' lands and rivers were considered the 'property of no one', thus requiring the exclusion of those communities who felt they had a right to it.

technologies, products, behaviors, audits. There is no debate over alternative ecological trajectories based on shared values, desires and relations emanating from a particular collective. Within the consensual governance arrangement sustainability is not premised on any particular vision of the future ecological collective; it does not emerge from any material social and ecological relations, the assertion of something real and valued. In contrast it is left open to the requirements of biological criteria and global economic markets to decide who and what is allowed to be included within the future of a sustainable marine environment.

The post-politics of environmental sustainability

The form of stakeholder governance emerging in the fisheries describes the post-politics of environmental sustainability. In this section I position the post-politics of environmental sustainability within a broader context of critical political thought. I argue that post-politics can be characterized as a form of consensual decision-making after the terms of the debate have already been established. This is evident in 'second wave' ecological modernisation where sustainability is promised through ongoing negotiation between new social and political actors. I argue that the post-political symptom can also be extended to more radical political thought which puts forward an affirmative account of the world. While the work of radical political ecology has been important for re-thinking the relations between humans and non-humans I argue that it does not offer any ground from which to go beyond the neoliberal consensus on ecological modernisation. Turning to the political thought of Jacques Ranciere I argue that a radical politics of sustainability can be understood in terms of dissensus rather than consensus. In order for a different narrative of sustainability to appear there must be a radical break with the existing one.

Post-politics and the 'parliament of all things'

Governing the fisheries through ongoing negotiation between local and non-local, state and non-state actors within a pre-defined set of problems is characteristic of 'second wave' ecological modernisation (Warner 2010; Mol and Spaargen 2000; Beck 2010).⁴⁴

⁴⁴ Warner writes: "Ecological modernisation theorizing established first that political conflict was associated with crises, and second, that political consensus was associated with resolution of this crisis"

Swyngedouw writes: “[t]he fantasy of ‘sustainability’ imagines the possibility of an originally fundamentally harmonious Nature, one that is now out of synch but which, if ‘properly’ managed, we can and have to return to by means of a series of technological, managerial, and organisational fixes” (Swyngedouw 2010: 230).⁴⁵

This is the post-politics of environmental sustainability as debate over what kinds of ecological collectives we want is replaced by technical, localised problem solving and the extension of transnational governance and market networks. This shift away from any conflict between contrasting visions of sustainability reflects, I argue, a broader tendency in critical political ecology which understands politics principally as a process of inclusion through which ‘externalities’ are continuously added to a common collective.

While critical political ecology stems from important critiques of modern science and the dualism of Nature and Society the political extension of this critique has been characterised by an *affirmation* of the material world.⁴⁶ This affirmative step requires the ‘complexification’ of existing relations in order to account for the rich multiplicity of a world; “to recognise the complex associations of entangled, socionatural beings, instruments, and practices that constitute different natures” (O’Reilly 2005 : 116). Bruno Latour, an advocate of political ecology, writes: “everything that had been externalized as irrelevant or impossible to calculate is back in-with a vengeance. This is nowhere clearer than in the ecological crisis: there is no longer any outside that can be considered irrelevant - literally anything has to be taken into account” (Latour 2003 : 37). Without an appeal to anything ‘outside’ (Nature), politics is assumed to be able to operate on its ‘proper ground’.

Latour identifies the 1997 Kyoto agreement as a seminal moment in the transition

(Warner 2010 : 543). This corresponds with the crisis of government described in the previous chapter. Overcoming conflict in order to create consensus is enabled by the initial creation of commonly perceived problem. In the case of the fisheries this is the need to preserve fish stocks.

⁴⁵ In the fisheries this promise is questionable when both the fishing industry (economic) and environmental groups (environment) continue to be dissatisfied with the upcoming management proposals for the European fisheries despite strong measures being put in place to ‘re-structure’ the fisheries.

⁴⁶ This is illustrated by the growing interest in the notion of a ‘parliament of all things’. The ‘parliament of all things’ is the affirmation of a new ecological constitution in the wake of the critique of modern epistemological dualisms led by Actor Network Theory (ANT). Emerging in the 1980s ANT was a critique not only of science and the production of scientific knowledge but equally of those sociological accounts that explained reality through an equally dogmatic, *a priori* schema of historical and socio-economic causality. ANT overcame the stultifying explications of both social science and natural science by doing away with the dualism on which both operated (Mol 1999; Pickering 1993).

to, what he calls, a 'proper' political ecology. Here politicians and scientists, industrialists and militants found themselves on the benches of the *same assembly*, a fact that put the transcendence of nature to rest, at least for a time, and instituted the proper process of attending to 'matters of fact'. In this consensual politics all actors, human and non-human, are to be addressed as equals, to be mediated and incorporated into an extending global network. Rather than discounting reality political ecology encourages the proliferation of artifacts, information, mediators and hybrids.

A central presumption of this position is that the world is already full of entities or 'things', all that is needed now is a process to 'count' them. To ensure a good, common world, Latour writes, "simply means that another distribution of roles between science and politics should be attempted" (Latour 2005 : 251). Unlike in the past this 'external world' is not populated by subjects or objects, by facts or values, articulated by any single authority, but by possibilities that have yet to make themselves feasible and compatible with the prevailing order.⁴⁷ He writes,

By refusing to tie politics to humans, subjects, or freedom [as in humanist political philosophy], and to tie Science to objects, nature or necessity, we have discovered the work common to politics and to the sciences alike: stirring the entities of the collective together in order to make them articulable and to *make them speak*. There is nothing more political than this activity, and nothing more scientific [my italics] (Latour 2004 : 89).

While the post-humanist turn in political thought offers important critiques of anthropocentric understandings of progress, history and politics the shift towards an affirmative ecological constitution does not offer any critique of existing socio-ecological arrangements or any prescription on what kind of socio-ecological arrangements would be desirable. This lack of prescription has been one of the reasons for the interest in the concept of a 'parliament of *all things*'. The decision not to identify any privileged actor in socio-ecological assemblages appears to correspond with the unpredictable, entangled risk

⁴⁷ Lee and Stenner, two more intellectual descendants of ANT, summarize this reasoning: "[w]e humans belong, but only because we have banished those who do the work for us. Having *empirically recognized* the banishment situation, we can set about giving rights and recognition to the disenfranchised hybrids, who can then belong-by-assemblage with the rest of us" [my italics] (Lee and Stenner 1999 : 100).

society we inhabit today. The dispersal of agency within 'assemblages' and 'networks' is productive in terms of re-imagining our rich ecological subjectivity but it does not help us to understand how a position can be taken up against the current neoliberal consensus. Without knowing how to decide what should be included or excluded there is no ground from which to base a different ecological trajectory. As Mariam Fraser writes: "[t]hat Latour should be able to offer examples of the entities that are located in the exterior is, I think, symptomatic of the problem with the concept" (Fraser 2006 : 64). The exterior is nothing more than a 'neglected interior': the "rejected facts, the eliminated hypotheses, the neglected research projects...that are at the limit of the sensibility of the instruments", as Latour puts it. In other words, "[t]he entities externalized from the collective become an ontological successor to nature" (Watson 2011 : 60).

The suggestion that there is no *identifiable* systemic wrong supposes that the world we live in is imperfect but without ideological foundations. But while 'Capitalism' may not exist as an abstract, totalising monster (as it is often presented) it is impossible to neglect the ongoing, real and material consequences of our global socio-ecological order.⁴⁸ The 'end of history' and the 'end of nature' have not inaugurated the generation of more equitable, sustainable ecological commons. While the inter-connectivity of nature and society may accurately describe the riskiness of the post-modern world it can obscure the ongoing inequalities caused by existing socio-ecological relations.⁴⁹ The inability to name anyone or thing as responsible has led to the opposite inference: that the problem can be resolved through a better arrangement of what already exists (See Castree 2002; Laurier and Philo 1999).⁵⁰ This shift is marked by a change in question: instead of asking 'how can we create a new world?', a dangerously polemical question, the question being asked

⁴⁸ "The cause of eco-catastrophe is an impersonal structure which, even though it is capable of producing all manner of effects, is precisely not a subject capable of exercising responsibility. The required subject- a collective subject- does not exist, yet the crisis, like all the other global crises we're now facing, demands that it be constructed" (Fisher 2009 : 66).

⁴⁹ In relation to this Holloway writes: "Complexity becomes the great alibi, both scientifically and morally. The world is so complex that we can think of it only in terms of fragmented narratives or, much more common in spite of the post-modern fashion, in terms of positive and positivist case studies (Holloway 2002 : 154).

⁵⁰ In the aftermath of the Deepwater Horizon oil spill and a coal mine collapse in West Virginia, for example, the Republican Senate candidate from Kentucky, Rand Paul said: "It's always got to be someone's fault instead of the fact that maybe sometimes accidents happen" (Television interview, *Good Morning America*, ABC, May 21, 2010). Canavan *et al.* comment that "[h]ere we see the paucity of options for critique in the neoliberal age: the profit-seeking hand of the market can never be faulted, not even in the face of incalculable catastrophe" (Canavan *et al.* 2010 : 2).

is 'how can we live together better?' "In other words," Swyngedouw writes "we have to change radically, but within the contours of the existing state of the situation...so that nothing really has to change" (Swyngedouw 2010 : 219).

The problem with consensus

Jacques Ranciere is a French political theorist and philosopher and one of the most original and critical voices writing about the the post-political turn in contemporary liberal society (Davis 2010). For Ranciere the problem with the current post-political consensus is the lack of disagreement over what is at stake in the world, a situation which prevents the emergence of radical alternatives. Instead politics is assumed to be a process of mediation and inclusion between the many parts of society: "social majorities and minorities, socioprofessional categories, interest groups, communities and so on. There are only parts that must be converted into partners" (Ranciere 1998 : 14).⁵¹ The result, Ranciere argues, is that the erosion of the familiar bulwarks of 'objectivity' (such as Nature) have not opened up a politics of multiplicity, "a multiplicity of local rationalities and ethnic, sexual, religious, cultural, or aesthetic minorities, affirming their identity on the basis of the acknowledged contingency of all identity" (Ranciere 1998 : 104), as advocates of a 'parliament of all things' had hoped. The inclusion of more 'parts' has not, and does not, open up possibilities for something radically different; every position is reduced to a partial (productive) role within a pre-existing consensus:

Consensualist centrism flourishes with the multiplication of differences and identities. It nourishes itself with the complexification of the elements that need to be accounted for in a community, with the permanent process of autorepresentation, with all the elements and all their differences: the larger the number of groups and identities that need to be taken into account in society, the greater the need for arbitration. The 'one' of consensus nourishes itself with the multiple (Ranciere 2000 : 125).

For Ranciere, consensus politics, the 'building of a good, common world', as Latour calls it, is derived from the (mistaken) belief that everyone is already included, that everyone is capable of speaking a common language. From this premise the "disenchanted

⁵¹ This process of conversion is analogous to Latour's 'proper' political process of inclusion, the transfer of 'pro-positions' (the marginalised) into 'positions' (stakeholders with rights).

opinion spreads that there isn't much to deliberate and that decisions make themselves, the work proper to politics simply involving an opportune adaptability in terms of the demands to the world marketplace and the equitable distribution of the profits and costs of this adaptability" (Ranciere 1998 : viii). What is obscured in this analysis is the fact that every consensus rests on an *a priori* order that determines how the world is distributed according to particular roles, functions and capacities. Ranciere calls this the 'distribution of the sensible',⁵² the ordering of aesthetic experience which dictates what can and cannot be experienced by different subjects.

I call the distribution of the sensible the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and positions within in it. *A distribution of the sensible therefore establishes at one and the same time something common that is shared and exclusive parts. This apportionment of parts and positions is based on a distribution of spaces, times, and forms of activity that determines the very manner in which something in common lends itself to participation and in what way various individuals have a part in this distribution* [my italics] (Ranciere 2004 : 12).

The 'distribution of the sensible' literally refers to what is perceptible within society: what is seen and heard. This distribution is not inscribed through any particular or identifiable institution or external authority but through the organization of reality through social and material relations. Understanding power in terms of what is able to 'appear' questions the idea that politics can simply take place as a 'proper process' of negotiation and dialogue, a position which the 'parliament of all things' adheres to by conflating humans and non-humans on the basis that 'everything can make itself heard'.⁵³

⁵² The 'distribution of the sensible' is conceptually similar to Foucault's concept of governmentality. Power, or the state, in this case is not embodied in any particular set of institutions or authorities. Foucault writes that the liberal space of government can be understood as "a permanent consensus of all those who may appear as agents within these economic processes, as investors, workers, employers, and trade unions. All these economic partners produce a consensus, which is a political consensus, inasmuch as they accept this economic game of freedom" (Foucault 2008 : 84).

⁵³ Jane Bennett makes such a claim in her book *Vibrant Matter*. She quotes Franz Kafka's short story, 'Report to the Academy', in which an ape named Red Peter addresses a distinguished audience while dressed in a suit. Bennett sees this as an allegory for the connections between animals and humans, a fact that is 'more apparent today than ever'. She writes that there is a common 'life', defined as the "biological condition consistent with the capacity for emotion, sociality, and reflection." (Bennett 2010 : 52) Reading this story from a Rancierean perspective suggests that it is precisely the ape's inability to be

In the emerging narrative of ecological modernisation a certain 'distribution of the sensible' is evident through the expression of a single, 'common' environment that belongs to 'all present and future generations', and the many partial stakeholders who have a role to play within the preservation and management of that environment. The single, 'common' environment prescribes what is common between different subjects. In the fisheries the 'stakes' which fishermen hold are prescribed by the need to preserve the 'common' environment. While this manifests itself through explicit forms of inclusion and exclusion as fishermen are forced to demonstrate that they comply with environmental regulations the bio-economic rationale which underlies these governmental interventions operates at a more fundamental level. While fishermen express anger and frustration about environmental regulations imposed from the EU, or resentment at cheap imports undermining their ability to make a livelihood, there is no questioning the basic economic rationale which represents them as productive individuals exploiting a natural resource within a global economy. There is no single agency or authority who is dictating the market or the rate of production of fish stocks. These two parameters provide the bio-economic rationale which renders sensible the actions of different actors from fishermen to processors to state agencies to consumers. This becomes evident when the limits of the debate over the future of the fisheries are fishermen calling for tariffs to regulate imports or an increase in quota, while on the other side environmental agents call for eco-labels and more restrictive quotas and regulations.

The bio-economic rationale is the basis of the narrative of ecological modernisation: the transition from unsustainable to sustainable, material to immaterial, externalized nature to internalized nature. The politics of sustainability thus hinges, in its very expression, on the question of time.⁵⁴ This new path of progress is not dictated by

heard as anything but an ape that forces him to adopt the language of his captors. While he is in the cage screaming to be released, to be let back to where he came from, his captors only hear animal cries. In another context, Labelle writes: "[t]he plebs' anger is seen as nothing more than 'life itself', that is, as a form of suffering that all animals express when exhausted or mistreated, their cries and grunts having nothing to do with language or its associated virtues" (Labelle 2001 : 91).

⁵⁴ In their work on the Latrobe Valley, in Victoria, Australia, Gibson and Graham found the discourse of backwardness insinuated itself into the experience of living there. Having previously been a mining town the advent of privatisation had overcome it, leading to the loss of jobs and, what they describe as, the working class identity that was sustained by those jobs. They quote one respondent describing the Valley as a "petulant child that you can't ignore, that you don't really want" (Gibson-Graham 2006 : 33). Interpolated as 'children' corresponded to a chronic dependence on the (paternal) state for funding and

anyone or thing but it has taken on the form of an inevitable trajectory. Within the parameters of biological preservation and the global market economy roles, functions and capacities can be negotiated but no radical alternative can be envisaged. It is because these measures appear beyond question that other possibilities appear impossible. Fishermen, and the natural world, 'appear' on the basis of the productive role they can play within this narrative. Fishermen, and the marine environments in which they operate, are currently being 'helped' along the path to sustainability. In this narrative they can either be active and responsible 'stewards of the sea' engaged with governance apparatus and global markets, or they can disappear, unfortunate victims of an unavoidable trajectory, another footnote in history.⁵⁵ Underlying these positions is the consensus which reinforces the impossibility of imagining an alternative: even those who do not agree with the 'long term' vision of the future accept that there is no other way.

Beyond post-politics

Jacques Ranciere offers a way of thinking about politics beyond the existing 'distribution of the sensible'. This does not involve the identification of a new political subject or a new Science from which to work out in advance how and when social transformation will happen. For Ranciere, politics describes the moment when the distribution of the sensible is disrupted by the appearance of a new subject (Ranciere 1998; 2010a). This subject appears outside of any pre-existing place and time. In this way the political subject does not occupy an identifiable role within the dominant 'common sense'. In this understanding of politics transformation does not emerge from a world which is already constituted but from a disruption of that constitution. The new subject does not represent a particular community defined through empirical or sociological qualities (a part to be included). Rather its appearance discloses the contingency of the existing social order and the possibility of a different way of naming the world.⁵⁶

assistance, a relation which reinforce their marginalisation.

⁵⁵ "The assembly, as the space where governance is executed, is all-inclusive apart from those who do not or cannot express themselves in the required language- let alone those who are unwilling to contribute to production or, even worse, who undermine the assembly with alternative political actions" (Papadopoulos 2010a : 187).

⁵⁶ Michael Neocosmos makes a similar point in his critique of social science for failing to provide the possibility for such a prescription. He writes: "In the absence of an ability to think politics as subjective practice, as consciousness, as choice, as a possible alternative to what exists, social science will always

The appearance of a political subject is not understandable in terms of a marginal group seeking recognition. What appears is a new subjective capacity which cannot be accounted for. This is why the disruption of the sensible cannot simply be understood in terms of a storm or an accident. A political subject recognises that a situation is wrong and refuses it. In this sense the political subject places a prescription on the situation. This prescription is missing in political ecology where human and non-human entities are considered as equivalent. This is why, when Jane Bennett asks: “[c]ould a tree or a viral epidemic or a subtle change in climate change burst onto the political scene to protest the ‘partition of the sensible’?” (Bennett, 2003: 26) The answer must be no. Such a change, as disruptive as it might be, is unable to place a prescription on the existing situation.⁵⁷ A political conflict involves a clash of two sensibilities or ways of seeing and envisioning the world.⁵⁸ “In the end”, Ranciere writes, “everything in politics turns on the distributions of spaces. What are these places? How do they function? Why are they there? Who can occupy them?...It is always a matter of knowing who is qualified to say what a particular place is and what is done to it” (Ranciere 2003: 201).

The political subject is not a fully formed, coherent subject capable of articulating an alternative world. But the appearance of a new political subject announces the possibility of a world which was previously unimaginable. Isabelle Stengers evokes the character of the ‘idiot’ as a metaphor for the way in which a political subject emerges in this ‘in-between’ space, breaking with what exists but not yet capable of sustaining a different world.⁵⁹ The ‘idiot’ refers to the same root as ‘idiom’: ‘a semi-private language

understand politics as state politics, as the state is what structures and ensures the continuation of what exists” (Neocosmos 2009 : 6).

⁵⁷ As Peter Hallward puts it: “without the freedom to make political choices, ‘we cannot say that people make their own history; we can merely contemplate the forms of their constraint’” (Hallward 2005 : 781). He goes on: “[t]he point is not that the human being is a political animal but that the human is capable of doing more than any sort of being. And this capacity includes a capacity for prescriptive politics that is itself irreducible to any biological “nature” or social (gregarious, communicative, altruistic, etc.) disposition” (Hallward 2005 : 783).

⁵⁸ In this way ‘truth’ can be seen as the particular refusal of the ‘wrong’ on which the existing social order is founded. This is in contrast to the idea that knowledge or truth must be a regime or networks consisting of many different elements (see Nustad 2003).

⁵⁹ Ranciere suggests something similar in terms of the ‘non-sense’ of a new political subject: “[p]olitical argument is at one and the same the demonstration of a possible world where the argument could count as argument, addressed by a subject qualified to argue, upon an identified object, to an addressee who is required to see the object and to hear the argument that he or she ‘normally’ has no reason to either see or hear. It is the construction of a paradoxical world that relates two separate worlds” (Ranciere 2010 : 39).

excluded from a form of communication characterized by an ideal of transparency and anonymity.' Unlike the model of communicative democracy the 'idiot' is not a perfectly articulate citizen capable of representing himself within the already agreed consensus on what the common consists of. Her way of speaking is not the 'slick communication' of the neoliberal subject able to insert themselves into different governance and market networks. Rather the 'idiot' speaks an idiom that is borne out of different experience, different material and social relations.

These 'idiotic stories' always slow the other down, resisting "*the consensual way in which the situation is presented* and in which emergencies mobilize thought or action. This is not because the presentation would be false or because emergencies are believed to be lies, but because "there is something more important" (Stengers 2005 : 994). The crucial difference between the 'idiot's' position and that of her 'sane' colleague is that the 'idiot' does not yet exist in a world fitted with a reason and logic embodied in the fabric of institutions, rules, regimens. In this sense her proposal is an 'idiotic' one because it does not 'concern a program for another world'. In contrast to the 'politicised citizen' of political ecology armed with 'speech prostheses', the 'idiot' resists the demand we are daily faced with "[i]f you want to exist for us, come and explain yourself, become a shareholder with us" (Stengers 2005: 1001).

In this way the 'idiot' is not seeking a way into the pre-existing collective. Through his words and actions he is generating a different kind of collective, one that is incommensurable with what exists. This ability to generate or prescribe a different possibility beyond the parameters of what currently exists is the unique capacity of human beings. This is not the speech of a 'representative' speaking on behalf of something or someone; nor is it a mediated speech translated into a 'common' language.

Extending this conception of politics to a politics of sustainability suggests that the possibility of an alternative socio-ecological trajectory requires the appearance of a new political subjectivity capable of placing a prescription on the single narrative of ecological modernisation. This break would involve a particular community refusing to occupy a role as productive within a re-structured, de-materialised sustainable future or as unsustainable within a 'backward' material form of production. A different reading of the clash between 'backwardness' and 'development' reveals a gap between the place and time of ecological

modernisation and the experiences and narratives of ordinary people, what Mark Fisher calls the 'atavisms' that provide obstacles to the expansion of capitalism.⁶⁰ It is from the 'non-fit' of such experiences that political disagreement can arise (Holloway *et al.* 2009). In terms of a politics of sustainability this can be understood as a rejection of the rationality which determines that certain ways of relating to and producing the natural world are no longer productive or valuable; certain histories, experiences, stories are no longer part of the single narrative of ecological modernisation.⁶¹ Significantly such a refusal does not involve a technical debate over how best to manage resources but a political debate over who is capable of speaking for the world to begin with. The refusal to occupy a role within a prescribed narrative is the expression of dignity and equality not the expression of a particular community defending a 'backward' way of life. While this is how such struggles are framed and often articulated the properly political articulation is the claim that 'we' are not 'backward' or 'forward' but rather contemporaneous in an entirely different world.

Imperceptible politics

In this section I move towards thinking about the role of continuous experience in a politics of sustainability. While I have sought to describe an alternative understanding of politics that points to the appearance of a subject capable of going beyond the current consensus on sustainability I have already discussed how everyday experience is capable of escaping dominant representations. Such experiences point to different social and ecological relations existing in ordinary encounters between subjects acting with and

⁶⁰ This clash is repeated through all periods of 'progress'. MacLaughlin writes of the 'improvements' to the fisheries in the 18th century: "Those people who did not act in accordance with the colonizing imagination were not just 'inefficient' they were 'inferior', in need of instruction at best and punishment and banishment at worst. "Certainly, in the aftermath of the plantations," MacLaughlin writes, "whole sections of the indigenous population were considered as a 'debased people' who lacked the skills to manage the land of Ireland and to properly exploit its fisheries" (MacLaughlin 2010 : 194).

⁶¹ This relates to the ontology of peasant movements which critique the reductionism of neoliberalism positing a practice and future beyond the liberal development subject (McMichael 2008). The Zapatista revolt in 1994 is a recurring inspiration in this regard. From the beginning their struggle was articulated not as the defense of the 'past' in opposition to the 'present' of capitalism, but rather the expression of a different past, present and thus future that was no less 'contemporary' or 'modern' than the one being imposed by global neoliberalism. This alternative vision and expression of time is not simply a political strategy but borne out of a different experience, in the everyday, of the past and present, experience which is embodied in the material life of living and producing life in the jungle (Cecena 2004).

through people, places and things. These experiences are not the 'property' of a new political subject waiting to appear but they do suggest that experience is not exhausted by what is made visible.

Beyond representation

As I have discussed in chapter one continuous experience describes how experience is not the single, coherent possession of an individual. Continuous experience escapes representational modes and is irreducible to existing discursive regimes or sociological interpretation. Experience, as Papadopolous and Stephenson write,

is simply there; it is particular neither to special actors nor to extraordinary moments of transgression. It is an ordinary, ongoing, largely overlooked aspect of being. It operates at the level of everyday sociability; it is a mode of doing everyday politics which interferes with hegemonic politics by creating connections between actants which circumvent the normative terms of relating. It is most closely connected to the surroundings, the vicinities, to the habits of everyday life (Papadopoulos and Stephenson 2006 : 444)

Papadopoulos and Stephenson articulate continuous experience in terms of a world beyond normative patterns of social interaction, thus opening a space where different relations between human and non-human actors can emerge. This 'excess' of experience "pertains to forms of social imagination which are beyond existing representations, which are affective, contentious and not yet realized in nature" (Papadopoulos 2008 : 148). Rather than conceive of subjectivity as merely that which is visible within the calculations of the state or the relations of power there is an excess of subjectivity, 'world 2' as Papadopoulos and Stephenson call it, which is open, undetermined and full of possibilities.

While the modernisation of the fisheries sought to impose a single instrumental logic onto the fisheries resources and the activities of the fishermen (Palsson 1991) it has not been entirely successful (Burkett 1999).⁶² The "fisheries are stubbornly resistant to

⁶² In historical terms Linebaugh describes how evidence of the commons will often appear anecdotal or as folklore or as 'crime', just a small story, a minor transgression; evidence of commons may appear incidentally to some other, major theme; evidence of customary commons may appear particular to

adopting relations of production that are typically associated with capitalism, and an enormous effort is needed to rein in and discipline fisheries such that they too mirror the singular and hegemonic image of the capitalist economy” (St. Martin 2000 : 960).⁶³ Despite the modernisation of the fishing fleet over the past two decades the fisheries, and the communities that rely on them, have not been entirely subsumed within the ontology of modern capitalism and development. The fisheries are strangely anachronistic at a time when the newspapers are filled with the crises of financial capitalism and the promise of the 'smart' economy.

From my time living and working in Castletownbere it became clear from the people I met that their experiences, dispersed and articulated through places, people and things, were not reducible to the bio-economic instrumentalism of ecological modernisation. Those who continue to make a living from the sea as independent fishermen enjoy the autonomy they have from authorities and regulation. This doesn't mean that they are in some way 'free' subjects living in a form of 'commons' but it does mean they are not completely subsumed into the modern capitalist ontology acting as economic individuals over-exploiting a 'common' resource. As I describe in more detail in chapters four and five fishermen do not experience the sea in terms of 'ownership', nor do they see it merely as a 'dumb' resource to be exploited for profit or managed and preserved. The experience of the sea, and more generally of the place in which they live and work, are not coherent articulations of an 'environmental ethos' but they are nonetheless real and concrete.

These experiences disrupt stable identities but they are not consistent. They are not the basis for a different socio-ecological commons, but neither can they be dismissed as limited, nostalgic clichés. They are experiences which are part of different social and ecological relations which materialise through people, places and things in time, both in the long continuity of time that peppers experience with histories and memories but also

locale or craft, and belonging thus to trade or local histories, not 'grand narratives'. (Linebaugh 2008).

⁶³ In historic terms the fisheries have always been 'anachronistic'. They do not correspond to an 'industrial' period, nor even 'feudal', but most often to a pre-historic age of 'hunter-gatherers'. As McLaughlin writes: “[b]ecause it was accepted that poor fishing and farming communities lived outside modern time and space, they too could be categorised as ‘people without history’. This, in turn, hastened the demise of peasant cultivation and subsistence fishing in remote coastal areas, causing impoverished coastal communities in particular to be banished to the footnotes of mainstream history (MacLaughlin 2010 : 39).

the fluid, continuous time of the everyday in which people come face to face with one another, go to sea, extend relations through the demonstration of experiences in common. These experiences, unfolding in a 'lively' material world, are imperceptible within the governing, bio-economic rationality.⁶⁴

Continuous experience and politics

The concept of continuous experience does not suppose that there is some 'alternative' or readily available subject waiting to emerge, but rather that the many experiences that unfold through ongoing relations with people, places and things hold possibilities for alternatives.⁶⁵ "Experiences which remain incommensurable and which cannot be assimilated are", Papadopoulos and Stephenson argue, "still integrally involved in altering the social conditions of our everyday existence" (Papadopoulos and Stephenson 2006 : xii).

Papadopolous and Stephenson's concept of continuous experience draws on the process philosophy of the twentieth century philosopher Alfred North Whitehead. For Whitehead individual subjectivity is, at any moment, in the presence of countless things, as well as past experiences, which bear down on the individual, limiting what the individual can do, prescribing but not determining what is possible in that moment. Only some of what is experienced in the world is turned into an 'event' which has a degree of stability, is representable. In Whitehead's analysis the experiencing being is always an individuation, an abstraction of some but not all of what was possible. There is always a

⁶⁴ Similarly, John Holloway has argued that the enclosures of the commons in the 18th century was not a singular event that has determined, once and for all, man's alienation from his own creative, collective doing grounded in nature. Holloway distinguishes between a 'stable' or 'hard' version of 'fetishism' and a processual, ongoing understanding. The former sees the radical separation of human and non-human life, the modern dualism of subject and object, as an historical event or moment that determines social relations. The latter sees fetishism as an ongoing process of fetishization, "a process of separating subject and object, doing and done, always in antagonism to the opposing movement of anti-fetishization, the struggle to reunite subject and object, to recompose doing and done" (Holloway 2010 : 89). This latter understanding re-discovers anti-fetishism in the very fabric of our everyday lives. This can be understood to refer to everyday experiences that escape the normalizing rationalities which dominate the visible world. These 'cracks', as John Holloway calls them, may only be momentary and fleeting but they are moments of escape from the power of a 'reality' that says otherwise.

⁶⁵ In a similar way Judith Butler asks that we "reread 'being' as precisely the potentiality that remains unexhausted by any particular interpellation" (Butler 1997 : 131) This 'unexhausted' subjectivity can not be understood in terms of what it is. In political terms it is 'excessive' precisely because it does not have a place within the existing system; it does not fit.

remainder, an unfulfilled potential of experience which does not come into the visible or sensible world. What is excluded is the potential for division or differentiation (for becoming); the potential, that is, to become differently. Crucial here is the sense that this potentiality cannot be grasped by thought nor recovered for a later time. While it doesn't have any existence in perceived reality this excess of experience still has a significance which cannot be refused. This 'potential' is not an 'invisible present'. It is more akin to an absence, a set of possibilities that can not appear within the existing relationships. In order for this potential to appear a different world would have to open up, a different 'wager' on a different type of existence.

The potentiality of experience is thus restrained by the type of world into which a subject becomes sensible. This becomes significant in terms of thinking about when continuous experience and the social and ecological relations of which it is a part become articulate. At one level experience is articulated everyday through ordinary exchanges between people. In exchanges with people in Castletownbere, for example, meanings and connections to places were often conveyed through narratives that drew on particular elements around them (points in the landscape, houses, boats, people) rather than through abstract or clichéd expression of how much they 'valued the environment'. At a community meeting, called to protest against legislation which would prevent people from building houses where they wanted (in order to protect areas of scenic beauty) there were strong emotions vented and most of the contributions came in the form of particular stories, from people who wanted to live in a certain place where they had come from or had a connection too. People were adamant that they didn't want to live in the town or in an estate. They didn't argue in abstract terms but in relation to very specific relations to the places where they came from, the connection they had to it, and above all their desire to continue something there. One man stood up and said, pointing out the window, "sustainability means driving home tonight and being able to see Jane's house up on Gour and the light in John Harrington's house when I turn the bend into Garinish" (Community meeting 02/04/09). While these expressions are only momentary and particular they emerge from different and ongoing social and ecological relations which are beyond prevailing rationalities of environmental sustainability.

Relating continuous experience to a politics of sustainability requires the

articulation of those experiences which are otherwise part of the fabric of everyday life, imperceptible and beyond the 'ownership' of any individual. However the relationship between continuous experience and a possible politics of sustainability is not linear or instrumental.⁶⁶ The existence of different ways of relating to and valuing the world does not presuppose a new political subjectivity. Rather than assuming that political subjectivity pre-exists conflict the understanding I am putting forward here suggests that political subjectivity emerges through the collective contestation of regimes of control which draws on and articulates the meaning and value of everyday social and ecological relations.

Conclusion

In this chapter I argued that framing environmental sustainability in terms of a single, common environment which must be preserved reduces the possibility of debate over the kinds of sustainable collectives people may want. Rather than ecological crises provoking such a debate there is instead a turn towards the local and an emphasis on consensual forms of problem solving. In this way environmental sustainability is reduced to a technical exercise of policing and stakeholder mediation. I described this as the post-politics of environmental sustainability.

In section 1 I described how the post-political condition is expressed in the IMP's commitment to govern the 'common' marine environment while at the same time satisfying the many 'parts' which make up the maritime community. While the 'common' marine environment is defined in terms of biological life the role of fishermen in the governance of the fisheries is reduced to a technical 'steward' working in collaboration with fisheries managers and scientists in order to find the most appropriate ways of balancing fish stocks to fishing effort. At the same time fishermen are encouraged to engage in transnational accreditation programs in order to insert themselves within market networks. While this form of consensus governance is presented as being more inclusive

⁶⁶ Most often such expressions of 'locality' or 'community' are turned into a defensive position that is both ineffective in terms of mounting a political opposition to the logic of the situation (the 'needs' of the 'wider society') and potentially conservative in terms of reifying a particular idea of what or who the 'community' is. The question is how to move the specific dissonance of experience with subject-positions within a given narrative from a particular protest to a political protest, and the demand for a different narrative.

and participative fishermen have less of a role in determining the future of the fisheries as the arbiters of global market competitiveness and biological preservation dictate a new narrative of progress.

The belief that sustainability can be achieved through the negotiation of state and non-state actors and the resolution of local problems is characteristic of ecological modernisation. In section two I described this as the post-politics of environmental sustainability. The affirmation of current ecological crises as complex, risky but ultimately resolvable through better political processes and mediation is, I argued, symptomatic of a broader tendency in radical political ecology. While radical political ecology offers important critiques of the humanist assumptions of modern politics it does not offer any prescription, or possibility of prescription, on the kinds of ecological collectives we may want beyond the current neoliberal consensus.

Drawing on the political thought of Jacques Ranciere I argued that politics needs to be understood as something which appears outside the existing situation. Politics describes the moment when a new subject appears refusing the role or function they have been assigned within a pre-existing consensus. This is not simply the cry of the marginalised or a contingent break down in an existing assemblage but the thoughtful refusal of a situation by a particular subject. In terms of a politics of sustainability this offers a different way of thinking of the local or particular: not as a 'part' to be included within the global 'common' defined in terms of the market economy and bio-economic criteria, but as the place, the ground, from which a break with the consensus might emerge.

While politics is associated with the spectacular or visible world I turned in section three to continuous experience as a way of thinking of the ways in which experience already escapes representational modes of being and acting. While the fishermen I met cannot be defined in political terms there are ways in which their everyday experience unfolds outside the single narrative of sustainability which is driving the re-structuring of the fisheries. I argued that everyday experience offers the space within which different forms of material and social relations are enacted. The political significance of such excessive experience is not causal or linear but in moments of antagonism such relations are brought to presence, articulated in opposition to the external imposition of a different

way of ordering and valuing the world.⁶⁷

Turning to subjective experience does not mark a return to an essentialist humanism or an effort to identify the agent of historical change. It re-thinks experience as material and continuous and thus something which offers a possible point of escape from dominant representations (Papadopoulos 2008; Ortner 2005; Gibson-Graham 2003). To read experience in terms of escape is not to suggest that there is an already existing alternative to the present narrative of sustainable development but to see in the everyday unfolding of experience, alternative subjectivities which can provide the threads for a movement against this narrative. It is precisely because these everyday natures are not abstract or pre-defined that they offer a way beyond the fixed ground of an external Nature or the 'empty' technical Nature of neoliberal governance.

⁶⁷ Mark Garavan writes that in the dispute over the Corrib gas pipe, members of the local community used a language of humour, self-deprecation and confidence about what was local in a public hearing. The inference was that this language was not the language employed by the various state and private bodies engaged in the project, nor did it have much bearing on them (Garavan 2008: 88).

Chapter Four

From commons to commoning

Introduction

Since the 1990s the rehabilitation of the 'commons' has become increasingly popular for policy-makers and resource managers (Ostrom *et al.* 1999). The move beyond the private/ public dichotomy has opened a 'third way' for managing common resources. In this chapter I argue that the 'third way' does not necessarily challenge the assumptions about fishermen or the fisheries resource which underpin private and public management models. Drawing on an example of a co-managed resource initiative in the Irish lobster fishery I argue that the institutionalisation of community managed resources can operate as a vehicle for delivering effective resource management within the unchallenged consensus on ecological modernisation. This supports arguments made in the previous two chapters about the framing of sustainability in terms of preserving fish stocks and the insertion of new participatory forms of governance as a means of working out the most appropriate measures to achieve this. In contrast I attempt to re-think the 'commons' as an unfolding process of 'commoning' between humans and non-humans within a particular, material environment. This draws on the concept of continuous experience as a space to re-think the possibilities for sustainability.

In section one I describe how community resource management has become a 'third way' for managing common resources. This has emerged from sustained critiques of private and state managed systems but also from a growing recognition that devolved management offers a more effective form of governance. Arguments for a 'third way' of resource management have particular salience for the fisheries where the problem of the 'commons' has often been called the 'fisherman's problem' (McCay 1996). At the moment access to fisheries resources within European waters are managed through quotas. As a mechanism for coping with the proposed ban on discards a system of individual quotas is being planned in the upcoming reform of the Common Fisheries Policy (CFP). The

individual transferable quota (ITQ) system will grant private property rights for fish stocks with this right being tradable. The ITQ system is criticized as a form of 'free market environmentalism' (Eckersley 1993; Bradshaw 2004). While it may ensure that the resource is not overfished, and do so in a way that maintains economic productivity, it does so by transforming a common resource into a private one, by limiting access to a few individual operators. While the ITQs will be introduced as part of the reform of the Common Fisheries Policy (CFP) in 2012 this will only apply to the offshore sector. In the inshore sector alternative forms of 'community-managed' or 'co-managed' resources are being applied. Inshore fishing continues to be a relatively small-scale, community-based form of fishing which accounts for over three quarters of those employed in the fishing industry. While the problem of resource depletion and overcapacity is less critical than in certain offshore fisheries it is understood to be vulnerable⁶⁸. In section two I look at efforts to implement community-managed access rights in the lobster fishery which has developed over the last ten years. Articulated as an alternative to the private or state management of common resources the approach reflects the ambiguities of devolved governance.

The management of the lobster fishery presents itself as non-prescriptive but this obscures the assumptions (global market, resources as property) which frame the context within which the 'local' fits. In section three I argue that the basic assumption of devolved management is that the problem of overfishing stems from a *lack* of regulation. A development rationale is constructed as local fishermen are 'helped' to adapt from an unregulated situation of 'open access' to a regulated fishery that will enable effective decision-making to arrive at social, economic and environmental objectives. This rationale ignores the external pressures imposed on fishermen and the resource by a competitive market. At the same time the binary of 'unregulated' and 'regulated' rests on the same neoliberal assumptions that fishermen are individual, economic subjects exploiting a 'dumb' natural resource. Despite attending to the local this generic representation of local subjectivities ignores the everyday, continuous interaction between fishermen and the

⁶⁸ The BIM document 'Managing Access to the Irish lobster Fishery' (2008) states that lobster stocks are over-exploited in most areas around the Irish coast. "In these areas the catch per pot haul has been steadily declining for several years and, while the stock does not appear to be in imminent danger of collapse, the reduction in catch rates has resulted in fishermen using more and more pots to maintain their earnings" (BIM 2008 : 1).

material world in which they live and work.

In the final section I turn to these experiences which are imperceptible to governance initiatives which understand the 'commons' as a static, empirical entity which can be embedded within the narrative of ecological modernisation. Drawing on my fieldwork I re-think the commons as an ongoing part of everyday reality. The need for fishermen to be active, open and responsive to the limitations and possibilities which arise in the course of their activity creates the need for different social and ecological relations. In this sense the 'commons' or 'community' is not an *a priori* subject or site but emerges through living in common, the making of a common non-proprietary world through the immediate sociality and materiality of everyday experience. I call this 'commoning'.⁶⁹ The experience of fishermen provides the point of departure for this re-thinking of the commons but 'commoning' is not unique to fishermen. It is a generic part of everyday life. Rather than seeing 'commons' as a noun, this alternative reading presents it as a verb, as a way of doing that escapes any regulative determinism (Kamola and Meyerhoff 2009).

A 'third way' for resource management

In this section I outline how the concept of community-managed resources has moved from being a marginal area of academic research to being an important management tool in the governance of common resources. This comes in the wake of critiques of privatisation policies and the perceived inefficiencies of top-down, state managed resource models. Including the local resource users in the management of resources is thought to provide a more adaptive, flexible and participatory arrangement within 'multi-scale' governance relations.

In his essay, the 'Tragedy of the Commons', Garret Hardin describes a situation in which a group of herdsmen graze their animals on a common pasture. Because the pasture is open to all, he argues, each herdsman is able to increase the number of animals he grazes without any restriction while the cost of the increase is distributed amongst all the

⁶⁹ Gibson-Graham argue a similar point: "[T]hey...redefine space as something that cannot be definitively dedicated to particular activities or exhaustively structured by a single form or 'identity',...[t]his space is open, full of overlaps and inconsistencies, a place of aleatory relations and redefinitions, never fully colonized by the pretensions of a singular identity" (Gibson-Graham 1996 : 74).

other users of the pasture. The ultimate consequence of this is that the pasture is destroyed by overgrazing. Hardin concludes that “freedom in a commons brings ruin to all” (Hardin 1968 : 1).

The common interpretation of Hardin’s thesis is that the only solution to the ‘problem’ of the commons is to enclose the resource through the allocation of private property rights or state ownership. In the 1980s a body of academic literature began to emerge which criticized Hardin’s thesis for being overly pessimistic and reductive of human behavior (See Hanna *et al.* 1996; Ostrom *et al.* 2002; McCay and Acheson 1990). Initially this research was based on case studies of formal and informal resource use rights within indigenous communities, and on laboratory experiments which modeled individual behaviour in situations where a common resource was made available (Ostrom *et al.* 1999). Rather than finding that individuals always acted in their own self-interest this research found that communities in different parts of the world managed commonly held resources through diverse, local systems of formal and informal user - rights. These often complex and subtle systems of access were generated by the users themselves and not through the external imposition of the state or through private ownership (Ostrom 2008).

Stemming from this research a Panel on Common Property Resources at the National Academy of Sciences was established in the mid 1980s. Its main discoveries were that overuse of natural resources is likely to occur where those involved act independently; state control of natural resources can be effective but frequently less efficient than when controlled by those directly affected; and that the variety of local norms, rules and property rights systems in use is immense but they could be categorized by certain design principles (Ostrom and Schlager 1996).

The findings and arguments generated by this research challenged the neoliberal argument for the privatization of resources as well as challenging its ideological opposite: state ownership. This became significant in the early 1990s with the collapse of the communist state model in Eastern Europe and the emerging critique of global neoliberalization. The revival of the ‘commons’ offered an alternative to the free market as well as an alternative to state management. There was a cautious and qualified acceptance of the ‘commons’ at the highest levels of international planning. In 1992 the World Bank stated that: “Governments need to recognise that smaller organizational units, such as

villages or pastoral associations, are better equipped to manage their own resources than are large authorities and may be a more effective basis for rural development and rational resource management than institutions imposed from the outside” (World Bank 1992 : 143).

The revival of community managed resources has now become an important policy instrument for the governance of natural resources (Agrawal 2003). The question now being asked is not how to overcome the 'commons' but rather how to institute effective governance of the commons with the involvement and participation of the local resource users themselves. What was left assumed within this discourse was the faith that effective resource management needed some form of restricted access and set of incentives. As Ostrom states: “property rights institutions are best seen as sets of rules that define access, use, exclusion, management, monitoring, sanctioning, and arbitration behavior of users with respect to specific resources” (Ostrom and Schlager 1996). While the need for property institutions was accepted the form of these arrangements was understood to require negotiation within each particular setting depending on the type of resources, scale of resource, resources users etc. (Dietz *et al.* 2003).

The literature on devolved governance, both in fisheries and the broader domain of community-managed resources, emphasizes the complexity and diversity of each ecosystem and the local resource users that operate within it (Hanna *et al.* 1996; Crean *et al.* 2000). Such complexity requires in turn an ongoing and adaptive set of relations. This opens the space for local participation resulting “in room to develop and tie together promising novelties, thus producing a double capacity to deliver or, as local discourse has it, ‘to do it better’ than can be done through the unmediated imposition of regulatory schemes” (van der Ploeg 2008 : 202).

Elinor Ostrom, one of the best known proponents of devolved forms of governance in resource management, is explicit about the need to accept that there is no 'fix-all' approach to the question of co-managed resources (Ostrom 2000). Rather than seek ‘optimal solutions’ managers, and stakeholders, should look instead to foster open-ended, ongoing processes of risk management. In this context, Ostrom argues, institutional complexity becomes as important for sustainability as biological diversity. Fisheries managers are becoming increasingly receptive to this line of thinking due to the inherent

complexities and unpredictability of marine ecosystems.

The inclusion of local actors in resource management is not just understood as a response to weaknesses in previous institutional models but also as a more effective and productive model of resource management (See Baland and Platteau 1996; Osterblom 2011; Olson *et al.* 2006). There is growing acceptance that the fisheries cannot be managed without the active support of fishermen (Jentoft 1995; Jentoft 1996; Pomeroy 1997; Mackinson *et al.* 2010). The Green paper on the reform of the Common Fisheries Policy (CFP) states this clearly: “[i]n a mostly top-down approach, which has been the case under the CFP so far, the fishing industry has been given few incentives to behave as a responsible actor accountable for the sustainable use of a public resource. Co-management could be developed to reverse this situation” (CEC 2009 : 3).

This raises questions about power and agency within participative forms of resource management. The response to the growing relationship between the local and the European, for example, has been the idea of fostering 'multi-scale governance' which requires different types of institutions operating within a 'nested' hierarchy (Crean *et al.* 2000; Ostrom 2008; Kooiman *et al.* 2008; Folke *et al.* 2007). While accounts of indigenous or non-Western community-managed resources illustrated how commons could be sustainable on a local level the question of how this relates to a situation where the 'local' commons must fit within the prevailing narrative of ecological modernisation is less clear.

Managing the lobster fishery

In Ireland this situation is particularly evident in an initiative to manage the Irish lobster fishery through community managed access rights. In this section I will detail how this has emerged and what the rationale is behind it. Two common motivations for the fisheries managers and scientists involved in the initiative are to find a way beyond private or public resource management and to establish a non-prescriptive space within which local fishermen can work together to achieve social, environmental and economic objectives. While these motivations remain the complexities of external pressures in the form of an EU environmental directive blur the lines of power.

History

The lobster fishery is part of Irish territorial waters and thus not subject to the CFP. For the past twenty years or so the only regulations on the fishery have been a minimum landing size and a v-notching scheme to return berried, hen lobsters back to the sea. Enforcement of these minimal requirements has not been strong. Until recently, in principal, anyone who wanted to fish for lobster could apply for a license, buy a boat and gear and fish as much as they wanted. In other words there has been little or no regulation of the lobster fishery.

In 1998 BIM was requested by the then Minister for the Marine and Natural Resources, Dr. Michael Woods, to carry out a “strategic review of the inshore fisheries sector”. The publication of BIM’s paper, ‘Irish Inshore Fisheries Sector, Review and Recommendations’ in May, 1999, marked a watershed in the management of the inshore fishing sector. Until this time no strategy had ever been outlined for the inshore sector even though it consists of 1,700 vessels, representing 80% of the total fleet. Despite making up the majority of fleet and fishermen the inshore sector only lands 20% of the total catch-value of the Irish fisheries. The territorial isolation of the inshore fishing fleet, mostly dispersed along the poorer Western seaboard, ensured that they remained neglected and peripheral. The 1999 paper sought to include the inshore fisheries “as part of the Government’s overall policy for the fisheries sector in general which is to maximise the long-term contribution of the sector to the national economy.”

When BIM were tasked to go around the coast identifying the numbers of fishermen and vessels operating in the inshore sector they discovered that half the boats were not even licensed. Many of the smaller fishermen had not bothered to sign up because, as Brid Smith, a senior civil servant in the then Department of Food, Agriculture and Fisheries told me in an interview: “the idea of bothering to license his boat was just mad” (Smith 01/06/09). Eventually those boats which had not been licensed were given a potting license for no charge. The potting license entitled them to fish for shellfish but no other species.

After this initial set back consultation between the fishermen, the department and scientists has been slow. 'The Management Framework for Shellfisheries in Ireland' was published by BIM in 2005. In 2008 a consultation document, 'Managing Access to the

Irish Lobster Fishery', was published by BIM. This provides the basic outline for the projected management of the lobster fishery.

Beyond private/ public

The main element of the management plan is that access to the fishery will be limited within newly created territories. This follows on from the basic principle of resource management that some form of restriction must be implemented. The problem with the lobster fishery in terms of declining stocks is due to a *lack* of regulations. Frustration with this situation was shared by the fisheries managers and scientists I met who were involved in the coordination of the lobster framework. As James Carney, a marine scientist, put it:

If you look at the problem with the lobster fishery at the moment it's not due to bureaucracy it's due to a lack of bureaucracy, a lack of collective action and talking. If you look at attention paid to it prior to 2000 it was almost zero. I don't think there was a scientific paper published between 1963 and 1995, or a policy paper. So it's a blank sheet from the state's point of view. Except it's less than a blank sheet (Carney 12/08/09).

The management framework establishes some form of regulated access without trying to be overly prescriptive. Lobster fishermen will be granted an authorization to fish lobsters in one of 8 units which encompass the Irish coastline. Each unit is sub-divided into two further units so that fishermen will have a choice as to where they want to fish.⁷⁰ Fishermen will only be able to fish within their territory and no new licenses will be provided after a given time. This will ensure that the number of fishermen operating in a given area will not increase. Licenses can be sold but no one can hold more than one license in the fishery. The hope is that this communal arrangement will ensure the security missing in a situation of open access, allowing for long term management plans and cooperation in terms of scientific research and routes to market, while avoiding the negative consequences of a private property regime. The authorization provides an exclusive right to fish a particular fishery but not a transferable right. This point was

⁷⁰ If they are on the border of unit 8 and 9, for example, they will be able to apply for an authorisation to fish in sub-units 8a and 9b.

emphasized by several different people involved in the formulation and implementation of the lobster management framework. These interviewees were each keen to stress that the lobster management framework avoided the problems of privatization. The example of the Tasmanian rock lobster fishery from the 1990s was quoted as an example of what they were trying to avoid in order to achieve an 'expanded social benefit'.

The need to be non-prescriptive

The new management framework, and those I spoke to with responsibility for it, suggest that all that is required to address the potential overfishing of lobsters and, by extension, the sustainable development of the fishery into the future, are basic parameters within which lobster fishermen can begin to self-organize and work in cooperation with fisheries scientists and managers. Thus the eight units were decided on the basis of the question: "at what scale will the fishermen and the lobsters be enabled to organize and engage in productive relations with each other?" (Carney 12/08/09) This is the non-prescriptive approach to fisheries management. As the document, 'Managing Access to the Irish Lobster Fishery', states: "the objective of managing access is to *enable* lobster fishermen to adopt measures that will give them higher net profits for each pot they put in the water" (my italics):

The setting up of management units, limited access and managed entry to those units is the first basic step to address the sustainability issue. Now you have managed access, when you have managed access the group can collectively act. They may wish to reduce effort at a certain rate, to improve the cost benefit. So it gives them scope for more action essentially...The question is then why will they develop efficient collective action now if they haven't in the past? In my opinion it's because of the additional, I don't want to call it property right, but the additional, approved tenure-ship and security they are given. And we have been very strong in trying to put forward that point: this is not a threat, it is a provision, it is giving you something, a better exclusive right to the resource (Carney 12/08/09)

The security promised by the exclusive right to fish a particular stock of lobsters grants those authorized fishermen a period of space and time to plan ahead, to engage in strong conservation measures, to build devolved government structures of their own and thus become more independent. The management plan is thus only a starting point. As

Carney put it: “[i]t’s a system of managing access really, rather than a system of closing off. So instead of having complete open access and anyone getting in whenever they want, its managing for the people who are inside in a controlled way, allowing objectives whether social, economic or environmental” (Carney 12/08/09).

Reflecting this 'bottom-up' discourse was Brid Smith from the department of the marine. She stressed to me that there was no ‘us’ and ‘them’ anymore. While this certainly wasn’t confirmed by the fishermen I had met her commitment to the principle was sincere. She had worked in the fisheries since the late 1990s. In that time she had been strongly involved in the development of the lobster management framework. One of the reasons it had been so slow to evolve, she told me, was their commitment to ‘bottom up’ management.

First of all the principle behind all of this, and we’ve gone out to international experience, we’ve had people in from Canada and New Zealand, other places that have also tried to grapple with this, and the basic principal is the nature of inshore fishing: management by centre is not an option. It just doesn’t work. It’s way too dispersed. The idea that you’ll have a police man or inspector standing out in every cove checking out whose fishing and who is not fishing is just mad. No way. Even in the good times when there was money for public servants it wasn’t an option. International experience tells us bottom up, bottom up, bottom up and not to force the process, just keep going back and back until you are driven demented by the whole process. Back down to them, back down to them, make sure they have ownership and buy in. Ownership and buy in are absolutely key (Smith 01/06/09)

The need for 'buy in' from the fishing industry was a constant theme throughout my fieldwork and interviews with those involved in management roles. This is reflected in policy measures emerging from the EU and Irish governments but in terms of the managers and scientists working 'on the ground' it emerges more directly from their own experiences and reflections. “The message”, Smith told me, “is hasten slowly. No big steps, no mad stuff, because we could have the most gorgeous management framework in here in Clonakilty or in Dublin but it wouldn’t be worth the paper it was written on. You know piles of paper supporting it but for anyone who looked beneath it, it would have no impact on the ground” (Smith 01/06/09).

Governance from above

The history of the lobster management framework is evidence of this. Begun ten years ago the framework has been fought for by the several fisheries managers and scientists who I met and interviewed. Despite their efforts they have consistently come up against an unresponsive government whose interest in the inshore fisheries is minimal. The inshore fisheries are not considered a significant sector of the Irish economy, nor do they come within the remit of European fisheries policy with the responsibilities that carries. Maeve Reilly, who has been involved in the plan for the last ten years, was clearly frustrated when I went to speak to her: “[a]nd here we are at the end of ten years and we don't have a lobster management plan. After all those initiations and iterations of a process that you had fishermen involved in, for the right reasons if you like, in terms of sustainability, viability, both economic and biological” (Reilly 03/09/09). Maeve Reilly told me that it ‘broke her heart’ to see the way in which the lobster fishery had been mismanaged over the past decade. She had worked with four different individuals in the Department over the past five years. It was impossible to get any consistency she said and the loss of trust on the part of the local fishermen would be hard to regain.

In the last couple of years this situation has changed because of Ireland's commitment to European conservation and biodiversity directives. In 2001 Ireland, in concert with other EU member state, agreed to halt the loss of biodiversity by 2010. Under the EU Birds and Habitats Directive a network of nature conservation sites, known as Natura 2000 sites, were established around Ireland, including many coastal areas. These Special Areas of Conservation (SACs) and Special Protection Areas for birds (SPAs) required a certain amount of biological baseline data to be collected by the Irish government through its conservation agency, the National Parks and Wildlife Service (NPWS). In 2007 five complaints were brought against the Irish government for failing to adequately classify or protect several important areas.

The consequence of the European sanction has been the threat of heavy fines unless the Irish government complies with the directives. The upshot is that those previously peripheral areas along the coast have now become a priority for the state. All licensed activities, including fishing, which take place within these designated areas are now required to be assessed in order to make sure they do not adversely affect key species

living in the environment in which they operate. The need to demonstrate that fishing is being carried out sustainably has given an impetus to the lobster management framework. Maeve O'Reilly told me:

Ultimately the driver now for any inshore management will be the environmental - like the Habitats Directive, Natura sites. That's interesting isn't it?...So all the efforts we've put in for the last ten years, well not the whole of that, that will all fall into place now, at different stages. Maybe not in the same way as we had conceived it in the first place because they have to, not because they have any altruism or whatever, or even sense of moral duty to the resource and the people that are involved in harvesting it. It's because there is a huge cash down and it will result in huge fines if they don't, millions and millions (Reilly 03/09/09).

Maeve told me fishermen are now coming forward actively seeking help to develop a management plan. She says they 'will now do anything to be involved'.⁷¹ While inshore fishermen do not have a significant impact on biodiversity they are now required to demonstrate this. It is not clear what this means but a priority will be identifying who operates within certain areas and what their activities are. This is ultimately what the lobster management framework sought to bring about. After ten years nothing had been done but now the threat of European fines has pushed the Irish government into action.

Whose commons?

In this section I argue that managing common resources through community access can obscure the broader context within which such initiatives are realised. The 'local' can be understood unproblematically within a context which presupposes that the goal of community managed resources is balanced fish stocks within a global market. I argue that such arrangements can end up reiterating two assumptions which underlie Hardin's 'tragedy' thesis and the neoliberal perspective on socio-ecological relations. Firstly, there is

⁷¹ This echoes what Jane Gillespie said about the fishermen in Mayo who required some way of demonstrating that they were fishing appropriately within an SAC. Interestingly the demands of the Habitats directive overlap with the EMS and international accreditation like the MSC. Jane told me how "there's a huge expectancy...when a fishery goes for MSC, suddenly the SFPA (Sea Fisheries Protection Authority) have to straighten themselves up and come to the table. So it is a way of encouraging them to put in an access management framework. Because there's a meeting on Friday with the SFPA because they're now under scrutiny to see how they manage that fishery" (Gillespie 30/06/09).

an assumption that local resource users must be regulated in order to prevent the over-exploitation of common resources. This assumption stems from a focus on the local as the site of change, a focus which obscures the broader context within which fishermen operate. Secondly, the fishermen are presumed to be individual, economic subjects exploiting a 'dumb' resource. Despite attention being focused on the local this bio-economic framing ignores those everyday experiences which escape such an ontology.

The local in context

A shared characteristic of the academic literature on community managed resources and the empirical example of the Irish lobster fisheries is an emphasis on locality and the participation of local communities.⁷² This turn to the local has emerged from important critiques of privatization and state managed resources which were seen to impose pre-existing rationalities about the roles, meaning and value of local experience, knowledge and interaction with the natural world (Scott 1998). The re-valorization of the local contradicts the neoliberal assumption that in an unregulated 'commons' individuals were fated to over-exploit the available resources. In place of this pessimistic view of human nature was a faith in the capacity of individuals to reach agreement between themselves on how to manage the resources they used.

The extension of this faith within devolved community-managed initiatives can however lead to an uncritical acceptance of the context within which the local appears. The involvement of outside actors is considered neutral or transparent, providing necessary technical assistance, information and mediation on how a particular set of local problems can be resolved (Agrawal 2003). The basic premise is that sustainable development can be achieved by enhancing local self-reliance through institutional and community development. In the case of the lobster fishery this was articulated in terms of providing the basic parameters within which fishermen could combine to reach mutually binding and effective decisions on social, economic and environmental goals. This 'participation philosophy' (Mosse, 2001; See Fung and Wright, 2003) stems from an initial way of framing the problem as the need for more effective governance. In other words the

⁷² Jentoft writes: "before one can hope to rebuild fish stocks, one must start to rebuild communities" (Jentoft 2000 : 53).

problem of resource depletion is located in the lack of adequate support at the local level.⁷³ This emphasis on the local situation can ignore, what Caffentzis calls, the 'exogenous violence' being imposed on the fishermen and the resource (Caffentzis 2010). The most obvious external pressure is the market. While privatization of the 'common' resource is rejected on the basis of social needs there is no questioning the 'free' market which determines the ability of a fisherman to make a living (Rogers 1995).

The market is a dominating factor in the choices which fishermen can make. While this is particularly the case with larger operators caught with debt repayments and high fuel costs, it was also the case with small-scale inshore fishermen. Joe, a young fishermen from Kerry, had been involved in consultations over the management of the inshore fisheries. He was secretary for the Irish Fish Producer's Organisation (IFPO) and the representative for the inshore sector. He thought it was a great shame the fisheries were in such trouble. He told me they'd been trying to manage the inshore fisheries for ten years but nothing had come of it. He was clear about the problem though: the price of fish. It wasn't viable anymore. It didn't matter how healthy the stock was, how well regulated, if a fisherman couldn't survive off his income. At that time the price of lobster was 9.50kg instead of 13kg the year before, and brown crab was 1.05kg rather than 3 or 4kg. The problem was cheaper imports of worse quality fish and the retailers and processors who didn't pass on any extra money. This year the prices of lobster and crab have dropped again and the situation has worsened as fuel prices rise. Besides struggling to secure an income Joe was also subject to the demands of the processor who he supplied. The day I went fishing with him we had to take the claws off the crabs we caught. This is illegal as the crabs are unable to survive without a means of catching prey. Joe told me he didn't like doing it but had no choice. Not only did he run the risk of a fine and a criminal record if he was caught but he also thought it was a 'terrible waste of good meat'.

Defining the local

While the pressures of the market can be ignored by an over-emphasis on the local,

⁷³ "Broadly viewed, environmental problems are problems arising from incomplete and asymmetric information combined with incomplete, inconsistent, or unenforced property rights" (Hanna *et al.* 1996 : 3).

there is a parallel, seemingly paradoxical, tendency to ignore the complexity of local socio-ecological relations (Lawrence 2006; Agrawal 2003; Cooke, Kothari *et al.* 2001). The obscuring of these everyday experiences is expressed in the identification of 'lobster fishermen' and a 'lobster stock' as the basis for effective resource management. This apparently neutral intervention assumes that fishermen are individual, economic subjects exploiting a 'dumb' natural resource. While this is a generic and visible subjectivity the difficulties which the fisheries managers encountered in persuading lobster fishermen that managing access was a positive development suggest that other relations and understandings exist.

One of the recurring problems identified in the implementation of a management framework was the 'fragmented' nature of the lobster fishermen, or the 'weakness of their voice', or their 'reluctance to participate'. As Bill Whelan, a BIM fisheries manager with responsibility for the management of the lobster fishery, told me: "the inshore fisheries, the people involved in it, are very disparate. They're not united, they do not have articulate representative organizations like the Producer Organizations do." This corresponds with the dislike which some inshore fishermen had towards the idea of being limited within certain boundaries. Maeve Reilly, who was involved in much face to face work with the lobster fishermen during the planning process, said that some of the fishermen were reluctant to be 'boxed in' to management units. Maeve added: "[a]ll you want to do is say this is the area you mainly fish in, you get to decide how many pots should be fished in that area including yourself. It's not about limiting you as much as saying address the issues in this area, concentrate your thing here, what do you want, what are your targets, do you want to increase catch rate and so on" (Reilly 03/09/09).

This statement reflects the rationale behind community managed access and echoes the 'responsibilisation' of fishermen discussed in chapter two. The implementation of access rights promises to provide the conditions by which fishermen can pro-actively engage in managing their fish stocks within biological parameters while at the same time organising to gain market access through accreditation, a goal which was presented as one of the main incentives for lobster fishermen.

The recalcitrance of some fishermen clearly frustrated Maeve Reilly and the other interviewees I spoke to. Their plan was not understood to be prescriptive or limiting. The

only way of understanding the reluctance of the fishermen was as 'territorialism', 'stubbornness' and a 'reluctance to change'. Where this was recognized the response was a re-statement of the initial rationality with an emphasis on improving communication and dissemination of information (Wiber *et al.* 2004). The problem is phrased in terms of 'bridging' the gap rather than addressing the basic assumptions on which such community-managed projects are based.

From my fieldwork it became clear that lobster fishermen are not just individuals operating independently to maximize their catch of lobsters for profit. In the proposed plan all existing boats that fish lobster will be awarded an authorization but this number will then be fixed. A young fisherman told me that something had to be done to protect the fishery but he was worried that access rights would prevent older fishermen returning to a 'bit of potting' when they semi-retired from offshore fishing. The inshore fisheries are known for the informality of the fishing. At any time in the summer it is possible to see small, open punts fishing lobster pots along the coast. Even though the inshore fishermen I spoke to wanted some regulations they didn't know how it would work, how you could allow for those with a decent claim to fish, and those who didn't.

Hardin returns

A re-reading of Hardin's thesis in the light of re-configured relations of power within community-managed resources suggests that the 'third way' is a lot closer to Hardin's thesis than may first appear. The assumption that local actors must be 'helped' on the road to development echoes Hardin's principle claim that people in a situation of 'open access' are limited to a state of 'anarchic' self interest.⁷⁴ 'Community-managed', or 'co-managed', resource arrangements construct a new binary: between the anarchy of 'open access' and the order of 'community-managed' (Mansfield 2007). In other words the tragedy of the commons becomes the 'tragedy of open access': wherever there is a perceived lack of effective rules, monitoring or compliance degradation of resources will take place. In this analysis *some* form of institutional response is required to manage the

⁷⁴ Even where fishermen themselves were not blamed as 'inherently' greedy the assumption remained that the problem lay with a lack of local management rules: "I think if I was a lobster fisherman at the moment, irrespective of how much I want to see the long term, I don't think I could act in the long term. I couldn't be proactive because the management system doesn't allow me to. It effectively forces me into a short term view" (Carney 12/08/09).

situation: incentives are necessary to make individuals act rationally towards one another and their environment. This understanding does not deviate far from Hardin's own analysis that "[t]he great challenge facing us now is to invent the corrective feedbacks that are needed to keep custodians honest" (Hardin 1968 : 4).

The binary that has been created between 'regulated' access to resources and 'unregulated' open access resuscitates a distinction which has justified interventions in the natural and social worlds since the enclosures.⁷⁵ The need to remedy the 'distortions' of an anarchic situation of 'open access', to transform it into a 'common property regime', is predicated on the same neoclassical understanding of both human actors and the environment in which they operate. The apparent 'neutrality' of this development justifies the implanting of boundaries, access rights, indicators about populations, new relations of governance which extend rationalities while at the same time denying the existence of other, imperceptible relations that continue to exist between fishermen and the places in which they live and work (See Knudsen 2003; McCay 1990).⁷⁶

If commons scholars consider politics only through the prism of institutions, they fail to attend to human subjectivities in relation to the environment more or less completely. It would be fair to say that changes in human subjectivities, as these occur concomitantly with changes in institutionalized governance of the environment, are the least understood and investigated of all environment-related changes (Agrawal 2003 : 258).

In the same way the experience of or value attached to the material world in which fishermen operate is not reducible to a form of pre-determined resource within one or other form of property relation. "Ignoring complexity within open access regimes, these common property theorists argue that economic rationality governs behaviour in open

⁷⁵ In Ireland, McLaughlin writes how fishing communities 'clinging to the Western seaboard' were barely visible in narratives of development and 'modernisation'. A large part of this was because of their lack of property rights, a lack that was considered in different accounts to preclude an individual from citizenship. Like other 'nomadic' communities through history, the vagrants, travelers, pirates, who had no settled 'proper'(tied) place to identify with, they were impossible to identify. He quotes the German political geographer Friedrich Ratzel who argued that the lands of nomadic peoples could be legitimately taken on the grounds that Western, capitalist nations had superior environmental practices. Fishermen were considered to inhabit a 'rootless and amphibious world' (MacLaughlin 2010 : 336).

⁷⁶ "For development experts to assert they have a game plan for making productive relations on common property "better", "more efficient", and "sustainable", they have first to construct a world of values and property relations that befits an imagined reality" (Goldman 2004 : 13).

access situations, such that individuals make purely economic decisions based on relative costs and benefits” (Mansfield 2004: 68). The identification of a community of people and a discrete resource takes place within an existing context within which certain goals and values are privileged above others. At the basis of these identifications is the fishermen as individual subjects operating as if on a 'blank' slate. Both are abstracted from a complex set of relations, values and experiences. The complexity 'within' open access regimes suggests the presence of different relations and values attached to particular environments and resources.

From commons to 'commoning'

In this section I want to look more closely at the imperceptible experiences that are part of everyday material and social relations. Instead of thinking of the 'commons' as a specific 'thing' or empirical phenomenon that can be modeled or 'preserved' another way of thinking about it is as part of an ongoing set of relations and experiences that exist as part of the flow of everyday life as it is dispersed across people, places and things. Drawing on my fieldwork I argue that the subjectivity of fishermen can not simply be understood as that of an economic subject exploiting a 'dumb' set of resources. While fishermen do operate within a market economy they are also part of open-ended and ongoing encounters with a multiplicity of human and non-human actors. This opens up a different way of thinking about time and place as they materialise in everyday life. I argue that this offers a different way of thinking about autonomy: not the anarchic individual freedom of the 'unregulated' fishery or Hardin's 'commons' but a responsive individual involved in an ongoing set of relations with the social and natural worlds in which he operates (St. Martin 2005).

Compelled by the world

Each time I was called on to go fishing there was little warning. The timing was decided by other factors. One evening I got a call from a fisherman called Tom. He asked if I would help him take down his prawn pots from the pier where he had kept them over the summer. In order for us to pass the pots down to the open boat there needed to be a good tide and calm weather, both of which had been forecast for the following day.

Another time he asked me and a friend of his to help haul his tangle nets. This wasn't because it suited him but because the nets had been down for five days because of bad weather and it wasn't easy to manage them on his own. My bag was packed for three days before I went on the tuna trawler as each night they waited for reports of the fishing from 300 miles out at sea. Two weeks before they had made the same trip and lost their lifeboat in heavy weather, forcing them home without catching a fish.

The sense in which the world is not a blank space on which to project a well-laid, linear plan was ever present in my experience of fishing. There is no clock which decides when and for how long a fisherman must work; there is no set wage. These qualities appear to describe the precarious conditions of workers in contemporary neoliberal societies but they are not generated by the vagaries of the market place. They are part of the world in which fishermen have always operated. It is a constant struggle for fishermen to cope with, to seize opportunities, to use what is available, to be responsive and attentive to what is going on around them. These conditions require different relations to time and materiality and by extension different social and ecological relations.

Time does not unfold according to any single agent. Agents converge on one another soliciting certain responses which are never fully certain or calculated. Fishermen need to be responsive to this changeability, to be open rather than closed. When I learnt how to tie knots on the boats I was told that a good knot should be as easy to undo as it was strong. This suggests something of the way in which events were not predictable, that tying and untying, connecting and disconnecting, emerge in response to the limitations and opportunities presented in the world. You never know when conditions will change and something will have to be let go, or something brought into play.

Having to adapt to this uncertain unfolding of time was something which I found hard to adapt to at first. When I was told there 'might be a chance of going out over the next few days' I was unable to plan anything else. I was used to making arrangements in advance. The 'intrusion' of things into my daily routines was something I was not used to. This departs from the idea of an individual working out their own linear path. Instead the experience of having to be open to uncertain events requires a more dispersed, flexible individual acknowledging that time and place is something that is not owned but shared with other humans and non-humans.

In my definition commoning is always a way of doing which materializes through people, places and time and is thus non-instrumental. Through such non-instrumental interaction unpredicted social and ecological relations emerge. For most of the year I had lived in a house close to the town. I became friendly with my landlord and lady and we decided together to grow vegetables in one part of their field. Sam, my landlord, and I dug and planted the garden together. Over the spring and summer we used to meet in the garden, the children and grandchildren of my landlord and landlady, my housemate and friends who came to visit. It was something we shared and did together. From this arrangement other encounters and experiences emerged. Sam used to ask me to help him on his farm occasionally. We would help each other collect fire wood from the forest down by the sea. He helped me build a chicken run with tools and materials he had. One day Clare, Sam's wife, met a local fisherman in the shop. She told him about me and he suggested that I should go fishing. A few days later I dropped around to his house which was just down the road and asked him if he would let me out on his trawler. We spent the evening chatting and at the end he said he'd give me a ring when there was a place. A week or so later he called me.⁷⁷

The importance of 'thick' or *material* experience in time resonates with Papadopoulos and Stephenson's notion of 'tarrying': "[t]arrying with time does not entail a concrete vision of an alternate future, but an expanded, slowed-down present which fuels new imaginary relations with other actants and new forms of action, possibilities people are compelled to explore, but which only later and unexpectedly will materialise in an alternative future" (Stephenson and Papadopoulos 2006 : 158-9).

Thickening place

Place is not experienced in terms of what exists within it, such as fish or other natural resources. Place is not an abstract space that can be separated from what is happening within and across it. Attachments and meanings borne through experience are

⁷⁷ When I tried to get a place on a trawler by going through the 'official' channels I was told that there were many 'observers' who wanted to go out for research. I was told I would need to do a three day sea survival course as it was a statutory requirement. I was also told to buy a lifejacket and steel-cap boots. Johnny lent me a lifejacket before I went on the boat. I was also not going as an observer but to work.

not abstract or technical, able to be enshrined as 'public', 'private' or 'communal' property.⁷⁸ The significant element is what is done within the space, or more specifically what is on-going.⁷⁹ Tim Ingold writes, “[i]f nothing exists in and for itself, but is only the more or less ephemeral embodiment of activity-in-relation-to-others, then the whole project of classification - which groups and divides things according to fixed attributes- becomes impossible...In short, in such a world names are not nouns but verbs; each one describes a going-on” (Ingold 2005 : 161).

The ways in which experience comes to unfold across and through responsive and reciprocal relations with a place is not confined to fishermen. When I first arrived in Beara I barely knew anyone or anything. The place existed on a map or on application forms for funding. Over the course of the year I grew attached to it in ways I couldn't have imagined beforehand. Yet I didn't own anything. I didn't own the hill where I used to sit and smoke nor did I own the road I used to walk down nearly everyday. But in a sense they belonged to me. I was attentive and responsive to them, and the place where they were, not out of any considered 'care' or 'attention', or out of any monetary gain, but through the thickening of everyday experience through changing weather, encounters and stories. This is not a mysterious or romantic idea. People become attached to things and places and people everyday yet they do not own them, or even name them, in a technical or legal sense.⁸⁰

Just moving through the town, talking to people in shops, the pub, was vital for building up these connections. In the same way it was common for people who lived there to drive around the town, along the quays, to see who might be there, what boats were in and how the fishing was. It was only when I began exploring the place not as a 'fieldworker' but as a person living there that possibilities presented themselves and

⁷⁸ Linebaugh makes this point. He uses the poetry of John Clare to show how the loss of the commons at that time was also the loss of a whole world: a world framed through fundamentally different terms, and thus experiences. From his autobiography Clare describes getting lost as a child on a Heath: “So I eagerly wandered on & rambled along the furze the whole day till I got out of my knowledge when the very wild flowers seemd to forget me & I imagined they were the inhabitants of a new countrys the very sun seemd to be a new one & shining in a different quarter of the sky.” Linebaugh presents this as an example of an ‘unenclosed epistemology’: of getting ‘lost’ (Linebaugh 2011).

⁷⁹ A good example of this different experience or sense of ownership or belonging occurred when the county council erected signs at the entrance and exit of Urhan, a small parish in the north of the peninsula. At that time I had several conversations with people who didn't like the signs. They said that ‘everyone knew where Urhan was’ and the signs ‘weren't right’.

⁸⁰ Michel de Certeau writes that if the great gods have died then the little ones have survived (Certeau 1994). I interpret this to mean the significance of those places and objects in people's lives which harbour experiences which transcend any particular moment in time becoming in some sense timeless or eternal.

unexpected encounters emerged.

When activities are bound up with the unpredictable agencies of the world the idea of articulating a clear path into the future is difficult. There is a sense in which the past and the future open up through encounters with and in the world. It makes sense, for example, when Tom an elderly fisherman points out the yellow house where he was born while we are hauling pots or when later he tells me that killing a berried hen lobster is akin to 'killing your cow when she is in calf'. Time materializes across things and places.

This is significant within a politics of sustainability where increasingly 'not looking to the future' is becoming the justification for the insertion of various security measures, such as access rights, in order to regulate the 'short term' activities of fishermen. In other words fishermen must actively demonstrate a commitment to the 'long term' in the present. But this is anathema to an idea of 'commoning' which is non-instrumental, which relates to the past, present and future through things, places and people.

Fishermen find the idea that they don't think about the 'long term' patronizing and offensive. In contrast they often responded by saying that they were the only ones who needed to think about the future because they relied on the fish. Civil servants, they argued, were never in their positions for more than a few years. Why would they care about the fisheries, 'they'd still get their pay cheque'. While many fishermen are now in a situation where they are forced to catch large quantities of fish in order to maintain a living, a consequence of a particular economic rationale rather than something inherent to fishermen, it is also the case that time is experienced as it unfolds in and through places, and in and through the process of continuous activity. The present is not marked off from the past and future in the linear terms. Rather it gathers the past and future into itself, 'like refractions in a crystal ball' (Ingold 2000).

In the course of an interview with Johnny, a fisherman, his children came in and out of the living room. We discussed the future of the fisheries and this question of the 'long term' commitment of fishermen. He stumbled slightly and told me the usual line about 'fishermen being the first environmentalists'. But then he paused and pointed out the window at a black boat that was sitting on a trailer. He had just bought it for his eldest son who was thirteen. He wanted his sons to carry on fishing he said. The carrying out of activities in time contrasts with the idea of an abstract 'long term'. Rather than the needs

of the future being used as a way of determining the actions of the present, actions of the present, embedded in relationships with the place, natural world, people, things, open up possibilities into the future.

Relational autonomy

Commoning as a material, ongoing way of relating to and responding to the world suggests a different understanding of autonomy from the neoliberal *homo economicus*. In a paradoxical sense it is an autonomy derived from a dispersed set of connections across time and place (Ploeg 2008; Scott 1998). It is precisely because a fisherman operates in such an unpredictable, precarious environment, beyond the clock and the set wage, that he relies on an array of artifacts, animals, technologies and people in order to sustain himself. The relations he develops with these various elements are not fixed or automatic. They are part of an unfolding, dispersed network of relations which take place on land and at sea, enacted in response to particular needs and events.

These relations are not tied to any particular end but they are part of a reciprocal exchange that allows individuals to act. Being receptive to changing conditions but also chance encounters, invitations, requests, opened up possibilities which did not exist before, possibilities which could not have been known. In the everyday exchanges, lending a hand, borrowing some equipment, doing a favor, there was no way of paying for the service and thus concluding the relationship. There was no objective value that could be imposed on it. Instead they were part of a flow of ongoing social and ecological relations. The need to be open to the unexpected, the need to have people and things to call on, is part of a different way of perceiving the world as future possibility. A mussel farmer I worked for told me that he sometimes dropped over bags of mussels to a nearby pier for collection not because he had to but because 'you just never knew'. He was referring to a possible future event when something might go wrong for him and he would have to call on someone to help. There was nothing cynical or sly about this but an awareness that things were not entirely within his control, that this uncertainty required the support and help of those around him. The same mussel farmer always left a bag of mussels hanging from the pier where he landed his boat. They were mussels he collected from the deck of his boat which, by law, are supposed to be discarded at sea. He left them

there for neighbors and friends and told me if I ever wanted mussels I could come by and take them.

In a similar way there is an autonomy generated from ecological relations which stem from an engagement with the natural world that is not closed. Joe, the fisherman from Kerry, had his boat fitted out with trawling gear so he could fish for flatfish and prawns when he wasn't potting for crab or lobster. While this makes him less efficient in terms of crab potting (he catches less crab) it opens up other possibilities in terms of what he is able to catch if the weather is bad or some other, as yet unknown event were to happen. Engaging in different activities like this also opens up other possibilities. He is able to use the by-catch from his trawling as bait for his lobster pots even though this is illegal.

In comparison, another potting boat I went out on was owned by the local processing factory. At first glance the boat seemed similar to Joe's except that it didn't have trawling gear. It was specially designed for potting, fitted out with large engines to facilitate faster movement between fishing grounds. This speed meant that it could shoot 800 pots but the cost of petrol was 150 euros (Joe only spent 30 euro). The cost of petrol meant that Brian, the skipper, couldn't check them as regularly as he would have liked. With no way of catching his own bait and being subject to what the factory decided Brian had to buy bait from them at a cost of 60 or 70 euros a day. The boat itself was divided in seven shares, with three of those going to the owners of the boat and to the upkeep of the boat. This meant that for the same amount of work, a day's potting, Brian made half as much money as Joe. For the factory owned boat the natural world is understood as something to be overcome: through speed and efficiency. Brian's activity is valued in terms of how many crabs he catches. This way of bracketing the world closes off the possibility of other, non-monetary forms of value being generated and used within the local environment.⁸¹

⁸¹ This has become the case with the modern fishing fleet. Many large vessels are stuck within a vicious cycle, part of an instrumental and static set of social and ecological relations whose linearity has led to the current crisis in the fisheries. Fish stocks are exhausted but so too are fishermen locked into debt repayments and a form of fishing determined to a large degree by the technology it uses. In his short story 'The value of money', which came from his experience of living in a small mountain village in France, John Berger sums up quite well the way in which technology carries value beyond its technical function. "They make sure we know the machines exist. From then onwards working without one is harder. Not having the machines makes the father look old-fashioned to the son, makes the husband look

The autonomy which comes from a material engagement with a place was something which people in Castletownbere were aware of. When I was living in Castletownbere the recession was beginning to hit Ireland. As the evening news came on in the pub each day and more information about the extent of the problems were revealed it was often said that the Celtic Tiger never made it to Beara and neither would the recession. Johnny, a local fisherman, told me: "I feel for people working in factories, but I say thank god we didn't have a big factory here in Castletownbere employing 400 people. If we did the place would be ruined. It would absolutely wipe the place out for generations. The changes that have happened in the fishing industry have been gradual."

In a similar way many fishermen I spoke to were resistant to what they called the 'soft dollar', to tourism. The Beara peninsula is beautiful and scenic but there's no desire for a tourist industry. It is not just pride or an unwillingness to change that informs these opinions, opinions which could no doubt change if the situation dictated, but an understanding that a tourist industry requires a great deal of investment, not just in infrastructure but in advertising and marketing. Even after that relying on visitors does not have the same certainty, autonomy and value as making a living from the natural resources of the area. There was a distinction made between the type of material productivity of the fisheries and the 'immaterial' productivity, and precariousness, of the global economy.⁸² As Johnny put it: "there is always a future in the sea when you have a mixture of stuff" (14/05/09).

mean to his wife, makes one neighbour look poor to the next. After he has lived a while with not having the machines, they offer him a loan to buy a tractor. A good cow gives 2,500 litres of milk a year. Ten cows give 25, 000 litres a year. The price he receives for all that milk during the whole year is the price of a tractor. This is why he needs a loan. When he has bought the tractor, they say: Now to use the tractor fully you need the machines to go with it, we can lend you the money to buy the machines, and you can pay us back month by month. Without these machines, you are not making proper use of your tractor! And so he buys a machine and then another, and he falls deeper and deeper into debt. Eventually he is forced to sell out. Which is what they had planned in Paris (he pronounced the name of the capital with contempt and recognition- in that order) from the very beginning! Everywhere in the world men go hungry, yet a peasant who works without a tractor is unworthy of his country's agriculture!" (Berger 1979 : 82)

⁸² Ploeg writes that peasants in the developed world are more integrated into markets than in the developing world. In this way farmers in the developing world can be understood to be better off by being less dependent (Ploeg 2008).

Conclusion

In this chapter I have critically examined the way in which the 'third' way of resource management does not necessarily offer a way beyond the neoliberal, humanist assumptions which underlie Garret Hardin's 'Tragedy of the Commons' thesis. The shift towards a localized, adaptive form of community-managed resource is understood as *simply* a matter of identifying the 'appropriate' community and the 'appropriate' resource in order to create efficient resource management. Fishermen are understood as individuals who require access rights in order to act 'rationally' in relation to the lobster stocks. This rationality translates as a bio-economic relationship between a rational individual and a discrete resource. At the same time the security provided by the access rights is understood as a step towards helping fishermen apply for eco-labeling or other forms of accreditation in order to gain market leverage. In a familiar pattern of sustainable development the roles and futures of the actors involved are defined before the process even begins. The objective of regulating the lobster fishery is to 'enable' a balanced relationship between the biological productivity of lobsters and the economic viability of fishermen. This reflects the biopolitics of environmental sustainability administered through a post-political arrangement of localized, technical problem-solving.

While localised responses to the problem of resource management can operate to extend biopolitical rationalities the local also remains the site from which different subjectivities are enacted through everyday material sociality. In section four I moved away from an understanding of the commons as a 'thing' towards the concept of 'commoning'. I define 'commoning' as an ongoing, open-ended process of social and material relationality. The concept of 'commoning' carries no moral content, rather it seeks to describe more accurately the way in which everyday experience unfolds in and through the process of acting in the world which escape dominant representations of subjectivity (Cloeke and Jones 2001).⁸³ 'Commoning' does not provide the basis for an alternative form of resource management but it does offer two ways of thinking about the politics of sustainability.

Firstly, it suggest that subjects do not only exist as rational individuals projecting

⁸³ "Local knowledge, because it is dispersed and relatively autonomous, is all but unappropriable" (Scott, 1998: 335).

their interests onto an empty world and into an empty future. While these assumptions provoke the need for regulation they obscure the way experience continues to unfold through time, materialising across places. Encounters in the present open up possibilities into the future, just as places become layered with meaning through ongoing activities. The issue then is not exploitation or not exploitation, self-interest or not self-interest, but how actors can develop ways of being responsive to the immediacy and materiality of unfolding encounters. This has been restricted through the narrow, economic instrumentalism of the past, but it now faces an even more totalizing restriction through the narrow, biological parameters of environmental protection (Ingold, 2000).⁸⁴

Secondly, the idea of 'relational autonomy' points towards ways of thinking beyond the autonomy of the neoliberal subject of contemporary society. Just as fishermen engage in ongoing social and ecological relations which enable them to avoid the logic of the market, it becomes possible to imagine how different relations can be generated between particular groups of human and non-humans through everyday sociality. These relations can help develop possibilities outside representational spaces and the technical administration of human and non-human relations.

⁸⁴ Fikret Berkes has made a similar argument using the example of the Cree Indians in James Bay (Berkes 1987). He argues that they do not have expert management consultants, but their own practices constitute a form of management: when to fish, where, what, how much. Cree fishermen believe that fish are inexhaustible. They use the most effective mesh size and fish for the most easily exploitable stocks- two measures which are anathema to current fisheries management- yet they do not overexploit stock. They need only observe the proper traditions of hunting and humility towards nature. This is very different to the current environmental idea of 'non-intervention' and the scientific idea of 'maximum yield'.

Chapter Five

Science and Nature

Everything is said to be under the leadership of the Party. No one is in charge of the crab or the fish, but they are still alive.

- Vietnamese villager (Scott 1998 : 350).

Introduction

Tom, an old fisherman, told me about a time he had gone out to sea with a researcher from Bord Iascaigh Mhara (BIM)

About three years ago I started fishing for shrimps out in the deep water as we call it. BIM decided they'd send us one of their brain boxes down to see how it was done, because we were after pioneering this system again, developing fishing out there in the deep, how we were able to hold our gear in the storms and without it getting damaged and that...Jesus how did he work that out, all this sort of business. But anyhow, worked it out I did...so your man arrived anyhow. We went out the next morning. We had about 6 pots hauled, next thing your man makes a dash inside to the wheelhouse to his bag. Something wrong I say. No not really, he says, but this is different to what I have in the book. Where did you get the book? I say. Head office he says. Right, do you see that island over there. Catch that book and fuck it as far as you can to the island and go in and bring out your writing paper and your pen and write what you see here now. This is reality. Write this. This is the real thing. That's fucking crap that book there (Fieldnote 14/12/08).

This story describes a familiar opposition between the local, situated knowledge of the fisherman and the 'expert', abstract knowledge of the scientist. In this chapter I analyse how this familiar opposition is being addressed as the role of science in resource management changes. Science is no longer tasked with providing an accurate representation of the natural world as the starting point for management plans. Instead, as

described in chapter two, the starting point is the consensus on the need to preserve the biological productivity of fish stocks. This opens the space for different relations between scientists, fishermen and the natural world as data and management decisions are generated through cooperative processes at a local level. Rather than providing a space for debate over what kinds of natures could exist this 'neutral space' enables new forms of knowledge and control over human and non-human life, reflecting the post-political tendency described in chapter three. In contrast to this bio-economic conception of nature I argue that the experience of nature goes beyond any epistemological foundation. Drawing on my experiences on fishing boats I suggest that a different way of thinking about nature is to look at 'how' we come to know different natures rather than 'what' we know about a single Nature.

In section one I trace how the role of science is changing in response to critiques of scientific knowledge and the growing urgency around ecological crises. In place of epistemological conflicts over different understandings of the natural world there has been a shift towards more consensual processes of knowledge production. These consensual processes are not based on any single representation of reality or claim to objective truth. The priority of preserving fish stocks is the tangible reality which provides the necessary ground from which more effective, 'grounded' knowledge can emerge. Rather than scientists having to convince subjects of a single reality they speak now of being part of a cooperative process in which a shared reality can emerge over time. I call this the 'new empiricism'.

In section two I describe and analyze a particular example of this 'new empiricism'. I look at the lobster fishery and the way in which the relations between lobsters, scientists and fishermen are no longer being driven by scientists and their representations of the world but rather by the need for effective forms of management. There is a move away from having a complete and accurate knowledge of the marine environment to a concern with providing a space where local actors can participate within productive epistemic networks.

While the 'new empiricism' appears to have moved beyond the old epistemological divisions, leaving objective 'Nature' behind, the outcome is not a neutral space where different natures can be discussed openly. In section three I argue that in place of the

objective Nature formerly represented by scientists a new 'nature' has emerged. As I outlined in chapter two, this new 'nature' is understood as the biological productivity of fish stocks. The question being asked in fisheries science now is no longer how to generate better data but how to create more 'effective' models for fisheries management. The starting point is how to preserve fish stocks as a basis for sustainable fishing.

Debates within epistemology focus on how the marine environment can be better known and how this knowledge can be made more effective in terms of managing and preserving natural resources. In section four I argue that there are many different natures borne in experience. Analyzing the experience of fishermen at sea suggests that the 'liveliness' of the material world opens up possibilities which are not 'knowable' in advance. These possibilities emerge through different ways of 'being-with' the world.

The end of Nature and the 'new empiricism'

In this section, I describe how there has been a shift in the way the role of scientific knowledge in fisheries management has been understood. This comes out of a broader critique of science, its claim to objectivity and its capacity to effectively respond to the complex ecological crises that society faces. I argue that in response to what has been perceived as the reductive, abstract scientific knowledge of the past there has been a turn to what has been articulated as a more modest, grounded knowledge generated through closer relations and understanding of local contexts in the natural and social worlds. I call this turn the 'new empiricism.' Echoing the last chapter the emphasis in fisheries policy and management is now on improving communications with the fishing industry in order to make science more effective at managing the fisheries resources.

The changing role for science

When the first global summit on the growing ecological crises was convened in 1992 there were parallel developments in critical thought undermining the very foundation on which an effective response to these crises could be launched. Research critical of the natural sciences suggested that Nature was a social construction which could not provide the necessary starting point for political or technical intervention (see Latour 2004). As Beck states: "[science is] more and more necessary, but at the same time, less and less

sufficient for the socially binding definition of truth” (Beck 1992 : 156). While the authority of science to speak for the natural world has been undermined the need for dramatic and decisive action is required.

This apparent paradox has been at the heart of reflections on the role of science in the management of ecological crises over the past two decades. In 1993 Ravetz and Funtowitzc's ground-breaking article responded to this question by arguing for a 'post-normal' science (Funtowitzc and Ravetz 1993). Rather than trying to provide certain answers about an increasingly risky and uncertain world, science had to become more modest in its role even as it became embroiled in situations with potentially far greater stakes. On one hand this shift involved a recognition of uncertainty, and thus the inability to provide certain answers, and on the other is recognized the importance of other actors in the production of 'issue-driven' knowledge (Ludwig *et al.* 1993; Francis and Goodman 2009).

Efforts have turned away from defending or proving ahistorical objectivity towards finding ways of making knowledge more effective at managing the risks which society faces. The role of science is no longer a privileged one. Questions around knowledge now focus on how different knowledge forms can be accounted for and included while at the same time providing a common basis for action and development. This parallels growing interest in local or 'tacit' knowledge as a supplement to more positivistic models of knowledge (Berkes *et al.*, 2000). Tim Forsyth writes, “[t]his alternative conception of science is willing to surrender claims to universal validity in exchange for knowledge that nears some local and circumscribed utility” (Forsyth 2003 : 165).

Over the last ten years there has been a sustained reflection on these problems and developments within fisheries governance (Paterson 2010). Roughly 57% of European commercial fish stocks are ‘unknown’ due to the unreliability of catch data.⁸⁵ In the last two decades the accuracy of scientific knowledge on fish stocks in European waters has fallen. At the same time there is broad agreement that the problem of depleted fish stocks is critical and requires immediate action. On one hand more knowledge needs to be generated about a complex and unpredictable environment. On the other the quality of this data and its efficacy in preserving fish stocks and the general health of the ecosystem

⁸⁵ This figure was given to me by Dr. Sam Lee of the Marine Institute.

depend on the active support of fishermen. Both of these questions require a greater cooperation between different actors.⁸⁶ This is seen in terms of a 'blurring' of disciplinary boundaries in order to collectively respond to a shared problem, and in the inclusion of fishermen in order to make knowledge effective and meaningful 'on the ground' (Wilen *et al.* 2002; Berkes and Folke 1998; Perry *et al.* 2010).

As in the shift towards non-prescriptive, community-managed resources discussed in the last chapter, the emphasis is now on 'how to make good decisions the right way' (Collins 2002; Mackinson *et al.* 2010; Leach 2008; Leach *et al.* 2007). It is no longer considered that understanding the biological foundations of a system is the key factor for good management.⁸⁷ The acknowledged complexity of exploited stocks and eco-systems, along with the technical and socio-economic factors involved, create the need for reorienting research and management strategies (Freire and Garcia-Alut 2000: 376). As a report to the EU stated: "[i]t is not enough for science to be right. It needs to interface with fishery management decision-making processes in a manner that helps managers make the "right" decisions" (Sissenwine and Symes 2007 : 29).

Making science effective

In 2002 the reformed Common Fisheries Policy (CFP) recognized the need to 'bridge the gap' between different stakeholders and scientists by introducing the Regional Advisory Councils (RACs). The RACs marked a watershed in fisheries management in the EU by bringing together industry representatives, scientific advisors, fisheries managers and NGOs in discussions about the state of the fisheries for the first time. While there are mixed feelings on the efficacy of the RACs they have paved the way for a range of other initiatives such as the industry-science partnership which creates closer, more

⁸⁶ This blurring reflects the academic debates and policy strategies that seek to encourage cross-disciplinary research and collaboration. As a recent edition of *Marine Policy* dedicated to the challenges posed by a dynamic and uncertain marine 'social-ecological ecosystem' states: "'[N]atural" marine ecosystems are usually studied independently from their human components, and by different scientific disciplines with different scientific traditions ("natural" scientists; "social" scientists and humanists). Understanding the important linkage issues and collaborating with other disciplines is, however, essential for correctly interpreting the causes and dealing with the consequences of global changes in marine social-ecological systems" (Perry *et al.* 2010 : 1).

⁸⁷ The EU has stated that relations between science and policy ought to reflect a 'new form of governance' (Fritz 2007). In 2002 the EU published its Science and Society Action Plan (EU). "The aim of the European Commission's Science and Society Action Plan is therefore to pool efforts at European level to develop stronger and more harmonious relations between science and society" (Foreword : 3).

localised relations between particular fisheries and scientific advice.

As part of this shift towards making scientific advice more effective within fisheries management the Beaufort Awards were set up in 2007 in Ireland as part of the Sea Change strategy. A consortium of the Marine Institute, Queen's University, Belfast and University College Cork raised funds of €3.92 million to be awarded to innovative research over seven years. The aim of the funding is "to harness and integrate the diverse research expertise required to develop a Centre of Excellence on the Island of Ireland that focuses on the development of an Ecosystem Approach to Fisheries Management (EAF)." The key objectives include increasing the transparency of scientific advice through increased stakeholder interaction and participation; increasing understanding of the life history, ecology, socio-economics, dynamics and ecosystem role of fish stocks and building capacity and knowledge management.

I met a researcher in the newly established Beaufort centre in Haulbowline, Cork. Dave Murphy had a post doctorate in marine biology and had been working in the fishing industry for sixteen years. He began with BIM, then the Marine Institute and finally spent the last seven years with the Irish South and West Fisheries Organisation in Castletownbere. He was also from a fishing background, his father being a fisherman in Ballycotton, a small fishing town in south Cork.

For Murphy the crucial question that now needed to be addressed was how to come together and make common decisions over the fisheries. His research was going to look at three ongoing case studies of industry-science partnership to examine what worked and what didn't, and what could be improved, in terms of developing a coherent consensus between scientists, managers and industry on the management of fisheries. Dave's research was going to be similar to mine in terms of its methodology. He was going to be going out to the fishermen and asking them about their concerns, what they thought about existing relations and communication with the scientific community, how they could be better informed and listened to. He told me that it was a great advance that managers had recognised that the social sciences were just as important as the hard, biological sciences for achieving sustainability.

If you went back twenty years fisheries management was completely top

down. There wasn't even any consultation. Then, in the last twenty years various channels for consultation opened. But essentially it's still been a top down kind of system. And now people are looking at real participation which means an awful lot more than someone who has just been consulted about some potential management measure. It means that fishermen need to learn the language, or at least understand the language that scientist are using and vice versa. Now there seems to be a very welcome acknowledgement that its not just biological scientists but social scientists who are required to try and create some sort of system that has some sort of chance of working (Murphy 28/05/09).

This question of 'real' participation reveals both the reflexivity and emphasis that is being placed on creating new relations in fisheries management. Consultation has been part of policy rhetoric for thirty years yet no one believes it. The role of scientists in the past was to collect data about a 'dumb' material world. They were silent behind the walls of their laboratories. Now the emphasis is on language and communication with the consequence that the social sciences are becoming more relevant. As a scientist Dave had become aware of the limitations and insufficiency of a purely scientific, top-down management framework. He was also acutely aware of the feelings, resentment and frustrations of the fishermen he wanted to help.

I don't think it's anything to do with biology and improving biological knowledge of fish stocks. I think it's purely a governance issue. Not purely but much more so than...you can know everything there is to know about the biological, and hard science, about how all the dynamics of how things work in the ecosystem but unless we improve the governance we're still going to make a mess of the stocks. So I don't see it as a biological issue. I think there's a recognition of that fact dawning (Murphy 28/05/09).

Murphy's reflection that the main issue in fisheries management was not the quality or accuracy of scientific data but its capacity to make the management of fish stocks effective is central to the 'new empiricism' I am trying to describe.

Not long after I spoke to Dave Murphy I met another researcher, Jill Donovan, who was working in University College Dublin (UCD) on fisheries conservation. She distinguished between marine biology and marine conservation by suggesting that the latter had more of a 'social conscience' and was thus more 'involved', while the former was mostly 'technical'. Her research was 'applied' research in that she was seeking to

answer a particular problem: overfishing. There were, she suggested, two types of data, or two types of facts, those that could make a difference and those that did not. This orientation encouraged her to pursue her question through different disciplines and methodologies. As well as doing her lab work on fish specimens she carried out interviews with fish retailers and fishermen as well as engaging in participant observation on scientific research vessels. She said that it was widely accepted by most scientists that there was enough hard science to identify the problems of overfishing. The challenge now was getting all those involved, from producers to consumers, to change their perceptions and start working together.

This shift from technical data to a concern for more 'effective' knowledge and the means of communicating it is being realised through the industry-science partnerships led by the Marine Institute in Ireland. Dr. Sam Lee of the Marine Institute leads the 'industry-science' partnerships. They consist of meetings between a group of scientists from the Marine Institute, representatives of the four Producers' Organisations and several other fishermen's representatives from the relevant fisheries. Each party brings up a problem which they have identified and asks the others how they might collectively go about resolving it. They set tasks or research projects for each other. At one point Lee described his job as "to ensure that what I'm saying from an advisory point of view is reflected with what these guys are seeing on the ground. *So the science matches the truth*" [my italics] (Lee 11/08/09).

A recurring question, for example, is how the fishermen demonstrate that they are fishing sustainably, or at least are committed to sustainability. In one of the last meetings they suggested keeping private diaries on board the boats so that there would be a constant record of what happened. Another suggestion, borrowed from Denmark, was the installation of CCTV cameras. Lee gave me the example of a recent meeting about the Celtic Sea Cod. The fishermen argued the stock was far bigger than what the science said. The science itself had collapsed in terms of its ability to provide an accurate analytical assessment. The fishermen asked for more scientific surveys to be carried out. The Marine Institute asked the fishermen what they could do to help collect data, "to the extent", Lee told me, "that the fishermen in the south coast are saying right, we'll hold back 20 tonnes of our national quota to pay for surveys" (Lee 11/08/09). This means that the boats in a

fleet are taking a small cut in their quota to pay for one of the boats to work full time at collecting samples. Lee believes this is the first time this has happened in Europe: "it has always been the state that pays: we do the job, there's the data...they (fishermen) are so concerned about the Celtic sea cod, that there is no analytic data, that they really are putting their money where their mouths are" (Lee 11/08/09).

Two weeks before I met him Dr. Lee had been at an informal meeting in Dunmanway, Cork, with twenty skippers. Lee told me that he was expecting a really tough meeting but it turned out to be one of the most productive he had ever been at: "it was just like forget about what happened in the past. We have to get the science up and running, what do we need to do" (Lee 11/08/09). They spent six of seven hours going through the problems 'as they saw them, and the problems as the Marine Institute saw them.' At the end they had a four point agenda including a plan for one of the fishing boats to carry out scientific surveys. This *ad hoc* approach to management reflects a general tendency in fisheries governance. Relations are less formal and prescriptive, replaced instead with relations 'on the ground', talking about what 'really matters'. Dr. Lee went on: "so they're far more general now, and they're really good fun. We're talking about systems and the science process, because a lot of people don't have time to sit down, so there's a communication thing going on here all the time, which is about information and I think that's very important" (Lee 11/08/09).

The commentaries of these scientists points toward a common tendency emerging in the role of science in the management of the natural world. Accurate representations of the natural world are no longer the Archimedean point of departure for government. In the past scientific knowledge was pivotal in providing a single understanding of reality, of 'nature', from which decisions could emerge. Science provided the 'objective' ground from which decisions could be made about a Nature 'out there'. Scientists, searching for other methods and means for resolving the problems of sustainable resource management, have found new areas to move into. Rather than reproducing the same 'objective' data on population dynamics they are explicitly adopting the questions and techniques of the 'softer' social sciences in order to provide 'useful' data that can help make a difference in the 'real' world.

Getting to know lobsters

In this section I describe a specific example of the 'new empiricism' taken from research done on the lobster fishery. While the lobster fishery is not subject to industry-science partnerships I describe how a project to cultivate lobsters and efforts to develop new relations between lobster fishermen and scientists reflect the broader tendencies I have discussed above. I describe a recent EU project undertaken in Ireland which sought to overcome problems associated with the cultivation of lobsters. Rather than forcing a pre-defined outcome on the lobsters they created a space within which the lobsters could grow more 'naturally'. Parallel to this project there are efforts to include lobster fishermen in the management of the resource. The way that relations between the scientists and fishermen is articulated is similar to the relations between the lobster and the researchers. Rather than prescribing what the state of the lobster fishery is and requiring fishermen to act accordingly the process is considered to be open, participatory and goal orientated.

The problem with lobsters

On my first day in the BIM centre in Castletownbere I picked up a book entitled *Lobsters: Biology, Management, Aquaculture and Fisheries*. I read the following lines:

Despite the wealth of knowledge regarding the biology of lobsters presented in this book and the volumes that came before it, we still cannot predict with certainty the future of lobster population densities or the impacts of current fisheries on their sustainability. One of the major reasons for this is that lobsters are highly variable in their behavioural strategies, making a number of our assumptions regarding population growth and limitation suspect (Childress and Jury 2006 : 98).

This observation provides an example of how the 'highly variable' behaviour of lobsters provides a problem for scientific research.⁸⁸ One consequence of lobster behaviour is that they have proven hard to cultivate. While aquaculture exists for other species of marine life efforts to grow lobsters in hatcheries in order to increase lobster

⁸⁸ An interesting feature of lobsters, for example, is that they have never been discovered in the wild at a certain stage, called stage IV, of their development. It is not known where they go or what they do.

stocks have proven expensive and ineffective. Lobster hatcheries work by culturing, or maturing, lobster larvae harvested from lobsters caught in the wild by fishermen. Once hatched these juvenile lobsters are grown to a certain size before being released back into the wild. The problem is that even from a young age lobsters exhibit extreme anti-social behaviour, often resorting to cannibalism when put in collective tanks. The problem of anti-sociality, as well as their elusiveness in the wild, has made them particularly difficult subjects to produce and govern in fisheries management.

In Wexford attempts were made in the early 1990s to cultivate lobsters. They were grown in individual compartments, each the size of a match-box. Being individually separated meant expensive apparatus but also individual hand-feeding: an extraordinary amount of labour for an uncertain return. Furthermore being reared in such exceptional conditions results in stunted development, the mature lobster being unable to survive in the harsher surroundings of the open sea. Subsequent tagging procedures revealed that recruitment of hatched lobsters to the wild lobster fishery was negligible: the lobster fishermen in the South East recalled a few dozen from the 30,000 hand-reared juveniles.

In 2003 a project under the umbrella organisation AquaReg, involving Spain, Norway and Ireland, began experimenting with new techniques for producing juvenile lobsters. The organisation was set up under the INTERREGIIC Community Initiative program, funded by the EU, with the objective of providing “opportunities and design strategies for sustainable development of peripheral coastal communities by promotion of interregional co-operation in aquaculture and fisheries.”

The stated aims of the AquaReg project were to make lobster culture more efficient but also, significantly, to ensure that the lobsters were of a ‘better quality’, in this case better able to deal with the vagaries of the wild. The project experimented with growing the lobster juvenile ‘at sea’, in various types of cage that were simply suspended in the water. The results were very good: the lobsters grew well. Not as fast as those reared on land, and fed ‘individually and to excess’, but without any additional feed and no monitoring they had grown independently, feeding off naturally occurring plankton and epi-biotic organisms.

Out of these trials two researchers from BIM, Dr. Sam Worth and William Jones, the man I spoke to about the project, experimented with similar trials in three bays in

Ireland: Killary, Kinvarra and Clew Bay. That was several years ago. The oyster trays are still there, hanging on the mussel long lines, the lobsters growing steadily. Sam and William maintain the lobsters but out of their own interest, not as employees of the Marine Institute. The reason they can do this, William told me, is because there is no cost: “literally we have done nothing except hang them out in the bays...There's no feeding, and the only reason we go near them is to measure them, are they growing or not” (Jones 22/07/09).

With hindsight the simplicity and cheapness of this way of culturing lobsters seems obvious. The early attempts at producing lobster juveniles required large, complex and costly materials. Any change or perturbation was prevented or regulated. Everything had to be accounted for before the experiment. Culturing lobsters at sea requires little more than an adapted oyster tray once the larvae have been collected and hatched from the spawning female. By incorporating as many ‘naturally occurring’ elements into the production process as possible the cost is reduced but also, most significantly, the individual lobster produced is of a better quality. The significance of the development of these methods is the shift in concern, a shift from the individual lobster itself, operated on and disciplined through costly technologies, to a set of general relations made visible and active through a particular design.

The role of fishermen

In the end the lobsters reared on the mussel lines were never released: the project failed. In order to assess whether released lobsters were growing to commercial size, and thus making the project a success, the cooperation of lobster fishermen was required. William Jones told me in the interview that a local newspaper had reported that the project was intending to ‘farm’ lobsters. This negative press had put off some lobster fishermen. At the same time the banning of salmon fishing was forcing fishermen into the lobster fishery. These new fishermen were not engaging in conservation efforts thus upsetting the lobster fishermen who were, making them less cooperative. Jones made it clear that a successful project couldn't just rely on the production of more lobsters. It also needed the support of fishermen. He told me to speak to James Carney, the scientist in the Marine Institute with responsibility for the inshore fisheries. He has been involved in research on,

and the management of, lobster fisheries for two decades. I met him in Galway, where the Marine Institute is based. He told me about how the approach to fisheries science had changed in recent years.

In the case of lobster we haven't gone down the road of trying to assess population abundance really, or even in making forecasts about abundance, or future catches and future population sizes. It's not possible to do it really is what we feel, and no one in Europe is doing it really and we are mindful of the difficulties that assessments say of whitefish and pelagic in ICES are getting into, they're getting into difficulty because of poor data quality, or because its just not possible to make these predictions. So there's a move away from using those predictive models to using what we would call just simple indicators of the current status of the stocks. So rather than having an absolute estimation of something you have a relative indicator. So you're looking for trends over a period of time rather than absolute point estimates at particular points in time. So they are different scientific approaches. *The scientific approach and the certainty with which scientists can make an estimate is also related to, and in some way defines the way the management system works* [my italics] (Carney 12/08/09).

The last line of this quote reiterates the rationale behind the reflexivity within the scientific community. Once the uncertainty and complexity of the natural world, and its relations with the social world, are accepted the role of science shifts away from prescribing solutions to facilitating different approaches that are able to respond to changes that unfold. The principal concern for any fisheries science is the need to promote the conditions which will allow fluctuations to be managed effectively rather than ignored or directly policed. If these relations are to be anything more than fragile they must be supported and strengthened. The way to do this, as I understand Carney, is to provide the conditions necessary for those relations to flourish. This is the value of 'relative indicators'; indicators that suggest the direction of events but do not try and determine them.

If we were absolute and precise about everything then we could give an absolute and precise answer then there's no debate and therefore a top down model could work for instance. *But because we don't have that we need consensus and you need to build the management process and the system so it can account for, or cater for the uncertainty and unpredictability, and can adapt quickly if needs be.* And hence the move towards the more co-

management model rather than a top down situation. *So I think it's important that the scientific work which is traditionally seen as the starting point is now seen as one seat at the table, and can give its opinion, and is only one opinion.* That is where we are at the moment I think [my italics] (Carney 12/08/09).

Rather than science producing the 'facts' which can force a consensus, the position articulated so clearly by James Carney is the reverse: consensus (the table in the middle) becomes the starting point from which effective knowledge and intervention can emerge. As with the hatcheries project, there is a realisation that a tightly controlled system is not, in the broader vision, capable of stabilising relations or of accounting for the inescapable flux of the natural, social and economic events. No single, definitive reality can be imposed onto the multiple, heterogeneous reality of the fishery.

The example James Carney gave to illustrate the way in which this approach to fisheries management could produce a more creative and open way of thinking about the fish stock was the Maine lobster fishery, arguably the most cited example of a successful commercial fishery.

They (scientists) were using a recruit model as a reference point- that is comparing the eggs produced by an individual lobster compared to what it would have if it wasn't fished. And the egg production is really low so the prediction models said the stock was about to collapse. But it didn't because every time they put out more effort the landings were going up lineally- which is a sign of under exploitation. So a complete contradiction of the science. I think they reached a decision eventually because the state science and the industry were completely at loggerheads with one another. The scientists couldn't do anything, their recommendations weren't followed through (Carney 12/08/09).

This is a classic case of a conflict between fishermen and scientists, a conflict which was repeated in different situations throughout the 1980s.⁸⁹ While in the past such

⁸⁹ Another well-known example was the collapse of the Newfoundland cod stock in the late 1980s. Despite warnings from inshore fishermen that their cod catch was declining due to the operations of larger boats offshore the scientific data suggested this was not the case. The cod stock finally collapsed and whole fishing communities lost their right to fish. These historical examples have become well-established references in reflections on science-industry relations. A project in Galway University which aims to integrate the tacit knowledge of fishermen into management decisions quotes Sam Lee, a Newfoundland fisherman, on its webpage: "We founded the Newfoundland Inshore Fishermen's Association because nobody was listening to the fishermen. We were complaining to the wind." URL:

conflicts hinged on the 'objective' truth of the scientists against the partial truth of the fishermen such distinctions are now being suspended on the basis that the common task is to preserve the fish stocks rather than provide an accurate picture. Carney told me that the scientists in Maine did not continue imposing their findings on the situation but rather took a step back and then consulted the fishermen. The result, James Carney concluded, was: "they abandoned the model and suddenly, like a chain being removed, all of these new ideas came forward, new models, new data provision, better indicators, more cooperation because the fishermen didn't feel threatened anymore" (Carney 12/08/09).

James Carney told me this story to highlight the way management of the fisheries had to shift its attentions from trying to extract limited data in order to disseminate inaccurate and uncertain knowledge about the fisheries, to a collaborative and open arrangement in which nothing had to be decided or finalised. A fishery which was co-managed would mean a fluid interaction between the various components, the scientists, fishermen, lobsters, data books, market prices, lobster pots, an evolving set of decisions and relationships that would provide greater security and sustainability.

Natural economy

In this section I suggest that the 'new empiricism' is not a neutral shift away from Nature. While the authority of science to speak for an external, objective world of Nature may have been weakened the result has not been the proliferation of many natures. In place of an external Nature represented by scientists the bio-economic framing of nature has become the foundation from which fisheries management can begin. The biological productivity of fish stocks is not an abstraction to be fought over but rather an empirical phenomenon that is open to new regimes of knowledge. In this way the need to preserve the 'health' of fish stocks generates a more totalizing concept of nature. Securing the health of fish stocks provides the minimal consensus around which actors are 'free' to participate within evolving epistemic networks. This reflects the post-political consensus on environmental sustainability.

A new nature

When I met William Jones he frequently referred to the fact that the new way of rearing lobsters at sea was a 'natural' way of doing it. Not only was it more effective (cheaper and less labour intensive) but it was also more 'natural'. But at the same time those lobsters were still hanging on the cages in Kinvara and Clew Bay. The lobsters in Killary were all killed by a change in water temperature brought on by heavy rain. Invoking 'nature' was supposedly a way of suggesting that the process was not just generally better but also that it involved less interference. But the supposition remains that lobsters are only there to reproduce, to grow, to be caught and sold on markets for human consumption. While the lobsters may have been 'free' to interact with other 'natural' agents in the sea the fact was that they were being further incorporated and rationalized within a socio-technical-economic apparatus that envisaged a single role for them to play.

The same understanding applies to the role of fishermen in their new role as 'epistemic' actors and 'stewards of the sea'. While they are 'free' to participate in the collection of data and the use of new technologies to improve their environmental impact there is no question that their role is to fish responsibly in order to maintain the biological productivity of fish stocks. In both the lobster hatchery project and the management of the wild lobster fishery the only measure of success is success: lobsters grow and survive or they do not; lobsters are in the lobster pots or they are not. Once this is the only parameter there is a freedom in the way the goal can be achieved. Furthermore the goal is never finished. Unlike science of old which sought to provide a final answer, the perpetual reproduction of lobsters requires an ongoing attention to what is going on, and a process that can change according to what happens externally. But this openness to 'uncertainty' is already prescribed within a single, biologically defined nature, not an openness to the creation of radically different natures whose end is unknown.

While the 'new empiricism' in scientific knowledge may include more elements within epistemic networks there are limitations on what is counted as relevant (Agrawal 2002). The assumed transparency of these new channels of communication fail to register that knowledge is generated within a particular context, in response to particular rationalities. While the 'facts' can be debated between scientists and fishermen as to how best to regulate and manage the fisheries the representation of nature which underlies this

has been put out of the question.⁹⁰

William Jones admitted that one of the problems for the lobster cultivation project was the inability to monitor the juvenile lobsters once they had been released into the wild. Efforts are now being made to resolve this through collaboration with fishermen. Fishermen are being asked to fill out logbooks detailing catch data. But why are fishermen becoming active when for decades they have resented the interference of scientists in their activity? As I have argued in chapter two the priority of preserving fish stocks is part of a broad shift in rationale within fisheries management. Dr. Sam Lee used the term 'levers' to describe the various pressures which are making fishermen change their attitude towards scientists. He suggested there had been a fundamental change in 'culture': "[f]ishermen are now realizing that historically, just by not giving us data it was a kind of protest, you're not allowed in here, you're not allowed onto our boats, is actually coming back to haunt them...there is now a bit of a scramble with everyone now suddenly loving the scientist" (Lee 11/08/09). Dave McCarthy corroborated this view. He told me that even since he had left working in the fisheries two years ago things had changed dramatically. "The criticality of the issues they are facing has got... things have got more critical and decisions have become more important," he said, "I think the pace of change has increased. Fishermen are facing more serious decisions than they have done in the past...there is less room to maneuver" (McCarthy 28/05/09).

Beginning with consensus

The changes which are emerging in the role of science and the relationship between scientists, fishermen and the natural world are not just understandable in terms of

⁹⁰ Marilyn Strathern takes up this question in her analysis of Intellectual Property Rights (IPR) (Strathern 1999). She traces how indigenous people, and concerned groups, have fought for the recognition of their knowledge over many years. The formulation of IPR is the outcome of this struggle. While this 'technology' has gone some way to responding to the 'political' demand by allowing indigenous groups to be represented and acknowledged by global corporations, the only outcome is that these groups are now 'recognized' by global actors and given compensation in the form of money. In this way their 'knowledge' is 'liberated' but through a very limited frame requiring certain 'technologies' of verification produced in accordance with the needs and demands of the global corporations. Strathern's main concern is that "there appears a new readiness to accept all manner of phenomena as relevant to agreements. Yet this hybrid embrace entails, as we might expect, new practices of purification" (Strathern 1999 : 161) (See Goldman 2004).

external regulations.⁹¹ While European directives are a strong incentive to 'bring fishermen to the table' the significant shift which is happening is the way in which the production of knowledge about the fisheries is presented as neutral and inclusive. This apparent neutrality operates to suspend the possibility of different natures (that are not understood or experienced in bio-economic terms) being debated. This reflects the post-political consensus discussed in chapter three. A comparison of the lobster fishery and Michel Callon's classic analysis of the scallop fishery in St. Brieuc Bay from the mid-1980s is illustrative of this shift.

Callon's analysis traced how several scientific researchers attempted to translate a population of scallops and a community of local scallop fishermen into a particular set of roles and relations. In his account the fishermen and scallops were passive subjects worked on by the researchers. By the end of the process of translation they had been represented through a number of devices and technologies within a particular arrangement mediated and controlled by the scientists. The scientists "worked incessantly on society and nature, defining and associating entities, in order to forge alliances that were confirmed to be stable only for a certain location at a particular time" (Callon 1986 : 18).

In the end the alliances forged by the scientists did not stabilise over time because of the dissent of the translated actors: the scallops refused to act as they were supposed to and the fishermen fished out the scallops on Christmas Eve, betraying the promise they had made to let the scallops grow. Callon describes how the construction of knowledge and subjectivity within this model is a fragile association held together by the single vision of the scientists.

The question of consensus and its relationship with the allowance of difference is central to conceptualizing new formations of knowledge and power. Where scientists in Callon's account were engaged in inscribing roles in accordance with specific, limited sets of problems, through specific, limited sets of apparatus, the new minimal consensus I am describing here does not and cannot rely on such means. Where consensus was the *end* result of Callon's process of translation, current strategies of control manifest a new tendency, one that principally makes consensus the *means* or starting point of scientific

⁹¹ While the lobster fishery is subject to the Birds and Habitats Directive, as discussed in the previous chapter, the offshore fisheries are being required to supply data under the threat of the precautionary principle.

knowledge. This reverses the model Callon articulated. Rather than science preceding consensus, consensus here precedes science. Epistemological debates are no longer debates over 'values' once the 'facts' have been decided by scientists. In the new model values are decided (life must be preserved) and then the facts are debated between local resource users, scientists and other stakeholders in order to come to the most effective solution (Pellizoni 1999; see also Rist *et al* 2006). Being included within these negotiated epistemological networks does not open up the possibility for different natures. It encloses the natural world into a bio-economic rationale of efficient resource use through devices, measurements and technical knowledge.

The problem with the 'new empiricism' is the assumption that nature is made up of discrete resources that are measurable in terms of biological productivity, and that by managing them they can be 'preserved'. At the same time this rationality ignores the fact that fishermen interact nearly everyday with the sea and the life within it. While these experiences are sometimes referred to as 'local' knowledge they are rarely addressed as anything but potentially valuable data for resource management. By looking at fishermen's experiences at sea as something beyond their translation or representation within epistemic networks it is possible to re-think how nature is not experienced as a single, stable world and thus not subject to any existing regime of knowledge.

From epistemology to experience

Drawing on my own experiences of fishing at sea I argue that experience of nature questions the idea of an *a priori* subject encountering a 'dumb' natural world. This dualism leads to the understanding that the nature can be 'known' outside of experience. While other epistemological perspectives attempt to go beyond this dualism I argue that they do not sufficiently account for the agency of the world and the unpredictability of experience as it unfolds within it. I draw on the thought of Alfred North Whitehead to offer a stronger account of experience and the natural world. Combining his thought with the experience of fishing at sea I describe how the natural world is experienced as a form of 'non-knowing': an open, material, non-instrumental encounter which is not based on any prior knowledge. I argue that this 'non-knowing' is not derived from an ignorance of the sea but from a recognition of its inherent unpredictability. This experience of 'nature' as emerging

through experience rather than being known *a priori* suggests a different way of thinking about a nature within environmental sustainability.

All at sea: the problem with epistemology

Despite advances in technology fishing continues to be an activity that depends to a great extent on the timings of the natural world. The fisherman has no control over what the sea does or where the fish swim.⁹² This uncertainty, and the need for fishermen to be constantly open to it, was made apparent to me when I went out on a tuna trawler.

Tuna fish migrate up and down the west coast of Europe. There is only a short season from late August through September when the fishing takes place. I went out on a forty foot trawler in early September. At that time the fish were 300 miles south west of Ireland. We steamed for two days without seeing a boat. The boredom which fishermen speak of was palpable. All we saw in the two days was a shoal of over a hundred dolphins which struck across the flat sea one morning to dive around the prow of the boat.

Trawling for the tuna only happens at night when the fish can't see the nets. We arrived at the fishing grounds in the afternoon. I was woken later at 11 pm to the cry of 'battle-stations'. The scene that greeted me on deck was entirely unexpected. There were about sixty or seventy lights of other boats scattered in the black night sky. It was hard to distinguish where the sky ended and the sea began. The effect made it seem as if we were in space. We were pair trawling which meant we had to join a net between our boat and another which had joined us from Castletownbere. In order to do this the boats have to come close enough for a rope to be thrown between them. These are the notes I wrote the next day:

We came up close to the other boat. It is hard to describe how cinematic it was: the boat lit by lights in the midst of the black sea, waves and wind whipping around it, three men in yellow oil skins on the back deck. The boat

⁹² Despite being from the 3rd Century A. D. the following description by the Roman poet Oppian bears close resemblance to the experience of many fishermen today: "But for the toilsome fishermen their labours are uncertain, and unstable as a dream is the hope that flatters their hearts. For not upon the moveless land do they labour, but always they have to encounter the chill and wildly raging water, which even to behold from the land brings terror and to essay it only with the eyes. In tiny barks they wander obsequious to the stormy winds, their minds ever on the surging waves; always they scan the dark clouds and ever tremble at the blackening tract of sea; no shelter have they from the raging winds nor any defense against the rain nor bulwark against summer heat." (Mair, 1963 : 203-5)

was only fifteen feet away or so. It seemed very dangerous- controlling the boats so well in the conditions. As soon as we were close something fired across- I didn't see it- and thumped down beside me. It took me a while to fetch it, by which time Jimmy had pulled it in anyway. I pulled away at the slack of the rope as Conor continued to pull it in. Everything was very frantic. There was much shouting and speed- to get the net attached as quickly as possible because of the danger of the boats being too close to one another. Conor shouts at me to help Jimmy but I can't hear the instruction in the wind and the noise. The fourth time I hear and help him but by then we were already losing it (I couldn't see exactly what was happening but the rope started firing out the back of the boat). The rope slipped through my hands and cut my fingers. Jimmy pushes me out of the way because I am standing on a coil of rope and he quickly says that's deadly dangerous- 'always watch where your feet are, you'd be whipped out and dead before we got you back in'. The cable is lost and Conor curses. It is all very frantic. The boat moves forward and then stops and the stern of our boat is only a foot or so from the front of the other one- Conor is screaming at Paddy to go forward as the boats look set to collide. The channel between the boats has caused the waves to funnel up so they are nearly coming in over the deck. Paddy can't go forward because the throttle cable has snapped. Eventually the boats part. Conor went down to fix it before we start again. (Field note 15/09/09).

The net is trawled through the night with little knowledge as to what the catch will be. Usually at around five or six am there would be a decision to pull in the nets. The first two nights fishing we didn't take in any of the fish as the other boat landed them. The third night we took in the nets. Out of the dark, depths of the sea the nets are slowly wound in. The bulk of the fish are gathered at what is called the 'cod-end' which is hoisted over the hold before being released. As soon as the net is opened a load of fish comes slithering out. In that single catch we landed about three hundred. Most of the fish were battered, scarred, ripped, even unrecognizable. Some flipped about still alive. Others had guts hanging out. We waded through them up to our knees for the next three hours as we sorted and stacked them.

I had imagined that fishing on such a large boat would somehow be more predictable than fishing on the smaller, less technologically advanced inshore boats. While the trawler was able to identify where the shoals of tuna were there was no accounting for where they would swim. In the course of shooting the nets and hauling them the material world itself was not experienced as a 'dumb' set of discrete objects. The liveliness of the sea, the wind, the ropes and the boat upset the possibility of predicting what would happen

next. Conor and Jimmy did not know any more than I did what would happen next but their capacity to respond to the unfolding events allowed them to cope.

The questions provoked by this experience reinforced what I had gathered from my other experiences on the boats: fishing at sea did not involve much prior knowledge of the natural world. It was an activity more than most which unfolds through responsive, non-instrumental relationships with the material world. The need for fishermen to be attentive to the changing environment has been understood as a form of situated or embodied knowledge, a way of knowing through doing (Palsson *et al.* 1993). This emphasis on 'practical' learning, or 'enskilment', suggests skill emerges through a bodily engagement with the world beyond or outside of discourse and consciousness.⁹³ Timothy Ingold describes this as a 'sentient ecology', not just a formal, authorized knowledge of the environment but a 'felt' one developed through long experience in a particular environment (Ingold 2000). Ingold describes, for example, how a biologist regards the tree as an inanimate object whereas the hunter, 'accustomed to the woods', registers the tree through "the swaying of the boughs in the wind, the audible fluttering of leaves, the orientation of branches to the sun" (Ingold 2000: 98).

While phenomenological and 'ecological' approaches to knowledge go beyond the subject/ object dualism they continue to emphasize the subject as the site of experience (Rodaway 1994; Ingold 1988; Grasseni 2004). The 'hunter' analogy suggests that the hunter perceives the tree in a certain way *because* he is a hunter.⁹⁴ There is an assumption that knowledge is something durable, generated over time through a subject's engagement in a particular practice. Through these practices a certain 'education of attention' (Gibson 1950) is built up which enables an individual to cope effectively with the world in which he operates. The linearity of this understanding does not account for the way experience is

⁹³ This overlaps with a phenomenological reading which looks at the body-subject as an experiencing entity rather than perpetuating the dualism of subject and object (Merleau-Ponty 2005; Ferguson 2001; Seamon 1980)

⁹⁴ In his book written in the 1930s Jakob Von Uexkull gives as an example the different ways in which an oak tree is perceived. The fox builds his lair in the roots; the owl perches in the branches; the squirrel hides in the crannies; the ant forages in the bark; the wood cutter cuts it for lumber; the little girl is scared of it. Each confers on the tree a 'functional tone'. In terms of immediate experience the tree does not appear as a 'Tree' for any of them (Uexkull 1957). This has been taken up by thinkers like Ingold as an example of the way in which 'nature' is co-produced. However the emphasis on the 'functional tone' suggests an *a priori* subject which draws meaning out of the world, rather than meaning itself being generated through the process of interaction.

provoked by the world in entirely unexpected and startling ways; it doesn't account for how the biologist can also be struck by the 'fluttering of the leaves'.

In my fieldwork fishermen were often compared to hunters on the basis of their 'intimate' knowledge of the seas. But while hunting and other 'craft-like' knowledge are understood to emerge from a close attention to the material world in order to carve out a particular meaning or narrative, fishing has far less finesse and control. While a hunter may seek out a single animal and kill or trap it, fishing is much more accurately described as a kind of bet. There is no way for a fisherman to track and follow his prey as accurately as may be possible on land. When the fisherman pulls in his nets or pots there is always a moment of anticipation as to what will appear. The unmediated life of the sea is brought onto the boat before it is sorted out into particular meaning or value. Until the moment when the pot or the net emerges from the sea there is little idea of what will be there. What appears is an unmediated tangle of life.⁹⁵

My own experience of being on boats and talking with fishermen was that they didn't have any particular concern with knowing about the sea beyond what they needed to as fishermen. In response to questions about why something was done this way, or why there were fish in that place, there was more often than not a shrugging of the shoulders suggesting 'that's just the way it is'. Out fishing one day Brian, the skipper of a potting boat, pointed out a blue box on the radar. The lines marked an area on the sea floor which BIM had identified as part of a project to show fishermen how fishing the same ground would prove less profitable overtime. They dropped six strings of pots close together in the one area. Brian laughed and told me it backfired because the pots were all full of fish. Time and again experience informed fishermen that fish moved in unpredictable ways and that scientific knowledge could never reflect this.

On my last day fishing with Tom, an old and experienced fisherman who many had said was the best fisherman in Castletownbere, we came to hauling four strings of pots we had shot the day before. There were forty pots on each string. Donal was excited about

⁹⁵ Unlike hunting, fishing pursues an invisible prey. On the whitefish trawler I noted what we kept and what we discarded from a single haul: "[s]pecies kept are brill, turbot, plaice, ling, haddock, cod, monkfish, megrim, whych, sole, lemon sole, John Dory, Pollack, skate. Species left are conger eel, dab, scad, everything too small, various crab species (velvet, fiddler, hermit, spider, brown), octopus, cuttlefish, pout, crayfish, red fish, wrasse, weaver fish, dogfish and many others I can't identify, as well as bits of rubbish, old net, gloves etc" (15/12/09).

pulling them in because he wanted to give me a 'feed of prawns before I left'. After hauling all three strings there was nothing except a few small crabs and three prawns. I asked whether it was the weather and Donal said that the prawns usually liked an easterly wind. I asked if it was because the pots hadn't been left long enough and he said they often check them after a day and there are plenty of prawns. He said, 'I don't know who to ask about this, three bloody prawns, it must be the worst ever', though he was half joking.

The manner in which Donal laughed about the failure to catch any prawns reflects a sentiment or understanding which all the fishermen I worked with or met had towards the sea and the unpredictability of fishing. Despite relying on the sea for their livelihood, despite wanting to catch fish as regularly and frequently as possible, there is no desire or motivation to control or 'know' in any technical sense why certain things happen and why others don't.

While fishermen were awkwardly represented as having 'intimate' knowledge of the seas, another, common, representation was of them as 'story-tellers'. Jane Downing, a scientist who worked for BIM and lived and worked in Castletownbere, asked me the first time I met her how I was going to 'truth' the fishermen. I was uncertain what this meant but she went on to suggest that fishermen never told the same story. The idea of fishermen as story-tellers indicates a fundamentally different relationship with the natural world to that of a stable relationship between knower (subject) and known (object). The material, non-instrumental relationship between fishermen and the sea produces a different way of experiencing the natural world. This is not a blind ignorance but a way of being with the world without prescribing it in advance. Attempting to understand this 'non-knowing' of nature led me beyond the weak versions of non-dualistic experience to the work of Alfred North Whitehead.⁹⁶

Beyond the 'bifurcation of nature'

Alfred North Whitehead was a twentieth century philosopher and mathematician who devoted much of his later work to exploring and critiquing the modern dualism of subject and object (Rose 2002). The presumed 'bifurcation of nature', as he called it, delineated most clearly in Kantian metaphysics, understood the world to be divided into

⁹⁶ Stenner distinguishes between a 'shallow empiricism' and a 'deep empiricism' (Stenner 2008)

'objective' nature, the unchanging and 'dumb' substrate of apprehension and the knowing human subject who gave 'form' to nature.⁹⁷ In this analysis experience is the preserve of an *a priori* subject who perceives the world through certain inherited or learnt sensibilities and knowledge. Whitehead's identification of this 'bifurcation' as permeating our concepts about experience has an important role in re-thinking ecological relations (Halewood 2008; Stengers 2008a).⁹⁸

Whitehead's understanding of continuous experience, as outlined in chapter three, generates two important ideas for re-thinking how experiences of nature escape particular regimes of knowledge. Firstly, experience of nature is not the 'possession' of a singular subject established over time: it is not determined by cognitive or 'situated' knowledge carried by the subject. Secondly, experience is not determined by an objective, external world that offers certain, quantifiable stimuli. Whitehead folds these two epistemological biases into a single concept of continuous experience which describes the relationship between subjects and objects that emerges in time.

Discussing Whitehead Bruno Latour writes of how every organism 'wages a bet on life' (Latour 2005a). This idea of betting conveys something of the unknown and not fully understood nature of experience. When people act it is not that they calculate what the consequences are going to be in relation to an already formulated goal or objective. Much of life is object-less, it is not oriented by anything more than the present. There is not a thinking subject, an 'I', constructing the world, identifying it, from a position of separation. Actions and decisions are taken without knowing exactly where they will lead. Risk is a necessary and productive component of life.

It is as if every living being has tentacles of one kind or another and these prehensive activities are part of the organism, not something added on and

⁹⁷ Whitehead points to the absurdity of a dualism that ultimately concludes that nature "get[s] credit which should in truth be reserved for ourselves: the rose for its scent; the nightingale for his song; and the sun for its radiance. The poets are entirely mistaken. They should address their lyrics to themselves, and turn them into odes of self-congratulation on the excellency of the human mind" (Whitehead 1967 : 54).

⁹⁸ James Gibson argues something similar by insisting on the inherent value or 'affordance' inscribed in the objective world itself. "The object offers what it does because it is what it is" (Gibson, 1979). While this shifts emphasis away from the intention of the subject it ends up reifying the objective world, suggesting that it has some 'inherent value' which is outside of experience. While Whitehead argues for values inherent in the world these values can not be outside of experience. 'Things' are not any more objects or subjects than 'humans', both carry inherent properties but are not reducible to these.

certainly not something inessential. They are aspects of the organism, they are also modes of relationality; open-ended, not fully knowing, bound to the world, seeking to further existence on yet one more occasion (Butler 1999).

This idea of the ‘open-ended, not fully knowing’ resonated with the experience of fishing on the trawler. On the boat the experience was not the result of a subjective interpretation of a static world but rather an immediate involvement with that world, a responsive coinciding with countless other elements. The world was not experienced as a set of commodities for extraction, nor as discrete life-forms in need of care and management. The world escaped such instrumental reasoning. This was where the skill lay: not in any pre-conceived knowledge, nor even in any embodied knowledge learnt through time, but in a creative and open engagement with the multiplicity of the world. As things happened responses were provoked, not spontaneously but neither pre-formed; responses that were induced or lured through the objective reality of the moment. This experience was realized through activity, rather than the other way around: “[t]he subject with its perspective does not pre-exist its feelings but creates itself through them” (Stenner 2008 : 100).

In Whitehead’s perspectivism⁹⁹ there is no pre-existing, internal ‘subjectivity’ or experience. Rather than imagining the ‘subject’ is the source of experience in the world, this understanding suggest that subjectivity emerges from experience in the world: “[t]hat is to say, there is only the process of the experiences of the world which make up the subjects/ objects of the world” (Halewood 2008 : 6). In this sense subjects of experience cannot communicate their positions, or viewpoints, as though there was a common plane of communication. Each perspective or experience is unique and must be *attained*. This distinguishes it from a phenomenological analysis which imagines one can ‘put oneself’ in another’s shoes. This ‘crude empathy’ does not account for the continuity of experience, the fact that it relies on process through time and space, not a fixed or stable position. In a

⁹⁹ This ‘perspectivism’ is similar to the Amerindian cosmology described by Eduardo Viveiros de Castro. In place of an ‘experiencing’ subject and a ‘dumb’ objective world the Amerindian understanding posits a reality in which the subject comes from the perspective. The complex, changing materiality of the world is what generates different experiences in a common ‘spirit’. Rather than a multicultural world of perspectives on a mono-natural world this ‘perspectivism’ suggests a multi-natural world in which different subjects emerge through their engagement with it (Viveiros de Castro 1998)

sense this experience is closer to the 'pre-moderns' cosmos, a vital materialism.¹⁰⁰ While this 'pre-modern' sensibility is imagined to have existed once upon a time, decimated by the onset of modernity, the dualism of man and world and the instrumentalization of natural life, an analysis of everyday experience suggests that this 'pre-modern' experience, of a continuity or inter-penetration of subject and object, remains a vital part of the way we interact and open up to the world around us (Viveiros de Castro 1998; Stenner 2008).¹⁰¹

This helps understand the frequent call on scientists to 'come fishing' in order to understand what fishing was like, rather than understanding their experience as something that was communicable through representation. It also helps understand how fishermen found it difficult to explain or describe what made a 'good' fisherman. Perhaps the best response I got was from a skipper who told me: "to be a good fisherman you have to *want* to be a fisherman". I interpret this to mean that being a good fisherman is not 'explained' by a certain set of skills or knowledge, they are not 'good' fishermen on land or when they are talking about it, but rather when they are actually involved in the unpredictable activity of fishing.¹⁰² Related to this was a common idea expressed to me by nearly all the fishermen I met: their appreciation of the variety and unpredictability of fishing. While on one hand this is clearly frustrating when their livelihoods relied on catching fish but on another it was one of the common reasons given for why they chose to be fishermen. Fishing was compared to working in an office, or, on one occasion, to working on a scallop farm where the work was monotonous and 'you would be waiting for the day to end'. Fishing requires a responsiveness to the changing and changeable world which is in dramatic contrast to the idea of a natural world which must be managed and policed in

¹⁰⁰ "At the basis of magic was an animate conception of nature that did not admit to any separation between matter and spirit and this imagined the cosmos as a living organism, populated by occult forces, where every element was in 'sympathetic' relation with the rest" (Federici 2004 : 142).

¹⁰¹ Timothy Ingold makes the same point in a different context: "[T]here is nevertheless a sense in which none of us are Westerners, and that the challenge that non-Western perspectives present to Western modes of apprehension exists at the very heart of our *own* society, in the mismatch between our shared experience of dwelling in the lived-in world and the demands placed on us by external structures of production and control that seem to leave only a residual space, divorced from culture and social life, where we can truly be ourselves" (Ingold 2000 : 323)

¹⁰² As Michael Halewood points out, G. H. Mead, who included Whitehead's perspectivism in his work, failed to grasp the radicalism of this constructivism, falling back on the individual as the substantial unit of analysis. Halewood quotes Mead: "[t]he human experience with which social science occupies itself is primarily that of individuals... This principle is that the individual enters into the perspective of others, in so far as he is able to take their attitudes, or occupy their points of view" (Halewood 2008 : 10).

order to preserve it.

Conclusion

In this chapter I described how the role of science in the management of the fisheries has moved from prescribing how the marine environment should be managed to being 'one voice at the table' in more consensual forms of knowledge generation. I called this shift the 'new empiricism'. While scientists may no longer call on Nature as an external source of authority the existence of 'nature' as something *a priori* continues to determine what can and cannot 'appear' as relevant within regimes of knowledge. In fisheries management the new 'nature' is defined in terms of the biological productivity of fish stocks.

While science has been 'freed' from a universal foundation the result has neither been a proliferation of new knowledges generated from different collectives and experiences, nor has it led to a reduction in the degree of control exerted over the natural and social worlds. As Isabelle Stengers argues: “[f]or some years, the theme of complexity has played an ambiguous role in discourses on science. It allows one both to defend science against the charge of “reductionism” and at the same time to envisage sciences’ conquest of what until now had escaped it” (Stengers 1997 : 3). Control over the marine environment is extending precisely because it is less shackled to the narrow prescriptions of a positivistic form of knowledge. Within the bio-economic approach fishermen become active in collecting data on fish stocks and regulating their activity in line with biological indicators. Marine life is subject to more monitoring and surveillance in order to ensure productivity. On one level fishermen are being required to cooperate with scientists as the need for data on fish stocks becomes more urgent. On another level however this must be understood as part of a more fundamental shift in the way scientific knowledge is being generated. The consensus on managing the biological productivity of fish stocks within an unchallenged global economy provides a starting point around which fishermen can actively and willingly participate. The result is a convergence of actors around a common way of framing and relating to the natural world. As this rationale realises itself 'on the ground' fishermen become equipped with knowledge and technologies that enable them to be technical stewards of their own marine environment.

In the final part of this chapter I turned to the experience of fishing. I argued that the emergent and unpredictable way that activity at sea unfolds cannot just be understood in terms of a subjective knowledge on a separate, objective world. This applies both to cognitive perspectives as well as those perspectives which attempt to overcome the subject / world dualism through phenomenological or situated epistemological accounts. I argued that a large part of fishing can be described as a 'non-knowing'. This does not equate to ignorance but to a different way of relating to the world as it emerges through time. The world is not mediated or subject to instrumental knowledge. While fishermen are understood to relate to the natural world in terms of discrete resources for exploitation as commodities or as resources to be preserved in the future, the experience of being at sea presents more dynamic, changeable and multiple natures. The sea is not experienced as something 'out there', the proximity to the material world, the way in which it still compels responsiveness, the way it acts without suggestion, makes it less of a 'thing' than an agent.

This echoes discussions of continuous experience in chapters three and four. I drew on Alfred North Whitehead's radical account of experience to argue that the dualism of an individual subject and a 'dumb' natural world is an epistemological construct that obscures the process, and richness, of experience as it unfolds through a subject encountering the world. In Whitehead's account the material world carries meaning that is not simply drawn from the intention or narrative of the human subject. Understanding the world as 'non-bifurcated' develops two broader arguments which relate to a politics of sustainability.

Firstly, it challenges the basis of existing approaches to environmental sustainability which posits a single nature in need of preservation. It argues that nature is not something which is either dominated or preserved but something which emerges through different ways of 'being-with' human and non-human actors. (Soper 1995; Morton 2007; Wilding 2008) Rather than asking 'what is nature?' the question becomes 'how do we come to know nature?' The latter question moves away from the urgency of management and policing to open up a space for critical thought and potential debate on the kind of natures we want.

Secondly, the idea of many natures points towards the possibility of generating the kind of natures we want, not as a pre-identified object or alternative but through more

immediate, material relations with world around us (Hornborg 2002).¹⁰³ This is not a romantic or extraordinary claim but rather in keeping with the ordinary, everyday experience which people have. The emphasis on the continuity of experience goes beyond the 'authenticity' of a single 'being – in - the - world' towards a more potential and heterogeneous 'being- together – in – the - world'. Rather than beginning from a single vision of 'nature', an alternative politics of sustainability would ask which natures do we want and how can we begin to constitute them.¹⁰⁴

¹⁰³ The philosopher and biologist Francisco Varela refers to something similar in the work of the Chinese philosopher Mencius. Mencius articulated the concept of 'wu-wei', which translates as 'not-doing'. This ethos suggests that there should be no ground for action on the basis that we are at our most attentive when we need to extend into the world, when the world is not already pre-defined. (Varela 1999) The example he gives is when seeing a boy on the edge of a cliff about to fall we are not moved to help because of a desire for praise or out of a dislike for the cry of the child. The idea of 'wu-wei' removes intentionality, pointing instead to the way in which events call on actions which are not merely responses to stimuli, nor reasoned decisions, but something else. (Preston 2003) While there may be a need for normative rules in society, Varela argues, these rules need to be informed by the wisdom that enables them to be dissolved in the demands of responsivity to the immediacy of lived situations.

¹⁰⁴ Raymond Williams argued that the suggestion that we must intervene in the world imagined that the opposite was a possibility: that we could decide not to intervene, as though we existed in some way removed from it entirely (Ingold 1995).

Conclusion

This thesis has looked at the re-structuring of the Irish and European fisheries as a way of critically examining the politics of environmental sustainability. My research has moved from tracing how the crisis of the fisheries has been framed and the new forms of power this has provoked to the everyday experiences encountered in my fieldwork which escaped the dominant bio-economic rationality. In my conclusion I will clarify these two points of departure before suggesting how they are related and what that means for a politics of sustainability.

The post-politics of environmental sustainability

After nearly two hours of apocalyptic predictions by leading fisheries scientists the documentary 'The End of the Line', concludes with the suggestion that this tragic outcome can be averted by consumers becoming more aware of what fish they are eating and where it is from. In one of the final scene Charles Glover is seen calling a well known and exclusive restaurant in London. He asks the person on the other end of the line what tuna they serve and where it was caught. This anecdote alludes to two principle features of the politics of sustainability I have sought to critically examine in this thesis.

Firstly, the documentary is characterised by the urgent need to do something to protect marine life. This relates to the biopolitical rationale outlined in chapter two. The crisis of overfishing is reduced to a biopolitical rationality in which the 'necessity' of preserving a single 'nature' becomes the basis for the re-structuring of economic and governance relations. The principal element of the re-structuring process has been a turn to 'nature' understood as the site of biological reproduction. Preserving fish stocks at maximum sustainable yield (MSY) has become the priority of fisheries policy in the EU. The imperative to preserve fish stocks has opened up new forms of policing which could not have been introduced in the past. On the one hand increasingly restrictive regulatory frameworks, punitive measures and surveillance systems are subjecting the fisheries to

unprecedented control. On the other individual fishermen are being 'responsibilised' through, what I called, 'technologies of representation' which operate as mediating devices between individuals and governance and market networks. The overlap between the new role for fishermen as 'environmental steward' and new forms of production is evident in such technologies of representation. While fishermen must demonstrate that they are fishing responsibly they are also having to adapt to a globally competitive economy which is displacing value from material, extractive activities to immaterial, market orientated ones. In short fishing increasingly becomes an activity that satisfies environmental regulation while profit is generated through the activities of marketing and distribution. The outcome is that the future sustainability of the fisheries will rely on far fewer fishermen, fishing far more efficiently in line with technical criteria, with the value being generated onshore through processing and added value.

Secondly, despite the recognition that the situation of overfishing is critical there is no suggestion that we could or should imagine a radical alternative to the existing situation. The response to the urgency of the ecological crisis is expressed through a redistribution of existing relations mediated through increased awareness, education and market and governance networks which can provide technical assurances of biological sustainability. This relates to the post-political consensus outlined in chapter three. Rather than providing space for new forms of sustainable production to emerge, this post-political consensus reduces political participation to the acting out of technical roles within a 'common' nature and a 'common' economy. The urgency associated with the 'preservationist turn' directs energy towards localised problem-solving while the absence of any single, identifiable agency or institution speaking for 'nature' contributes to the belief that all that is needed is better governance and cooperation between diverse actors. This fosters a post-political space within which it is hard to imagine any debates over what kinds of ecological collectives we want. The only disagreement is over what measures, forms, relations, technologies, will be most effective in achieving 'sustainability'.

In chapters three and four I traced the ways in which the new relations of power and governance are emerging within two key areas of the fisheries management: the managing of access rights to fisheries resources through the 'third way' of community participation and the new roles and forms of scientific knowledge in governing the

fisheries. In both cases there is a shift from prescriptive forms of management to a discursive and technical emphasis on consensus and inclusion. I showed how these new relations are based on the need to balance fish stocks to fishing effort through localised, problem-solving. While the inclusion of local actors within decision-making structures and epistemic networks has emerged from important critiques of power and knowledge the framing of such encounters within the bio-economic rationale transforms these devolved structures into vehicles for efficient resource management within an unchallenged global market.

Imperceptible politics

While the concepts of biopolitics and post-politics help us to understand the emerging rationale of environmental sustainability they do not point to any alternative. The second contribution of my thesis can be understood in the light of this apparent impasse in political thought. In chapter three I drew on the work of Jacques Ranciere as a way of moving beyond a non-prescriptive, consensual politics that has been unable to imagine a new ground for alternative socio-ecological trajectories. Ranciere offers a way of thinking politics beyond what is given in any situation. In this understanding politics does not describe negotiations between pre-defined actors or interests. Rather it describes the appearance of a new subject who refuses their prior identification as a particular kind of actor within a pre-existing arrangement or 'distribution of the sensible'.

I argued that the unfolding narrative of environmental sustainability can be understood in terms of a 'distribution of the sensible'. The need to balance fish stocks to fishing capacity within a global market economy determines who is included and who is not in this narrative. This is understood as a natural progression within ecological modernisation. A true politics of sustainability would begin from the refusal of this narrative. This refusal comes from a different way of seeing and thus being in the world which refuses the narrow vision of a de-materialized, technical administration of nature. In this way a political conflict does not describe a technical dispute over the use of resources but a dispute over who is capable of speaking for them.

The basis for such a refusal does not come from what is already visible in the world. The appearance of a new subject making a different claim on the world is always

unexpected and unpredictable. While the political subject only becomes visible in the moment of refusal or antagonism I argued in chapter three that the appearance of such a refusal requires experience which is excessive to the subject-roles which currently exist. These experiences are already part of everyday life. They are not articulate or coherent but they do escape normative representations which seek to define subjects in advance. This became evident in my fieldwork where the experiences of those who I encountered in Castletownbere were not reducible to a bio-economic understanding of individual economic subjects exploiting a 'dumb' natural world. As I outlined in chapter one, my research became increasingly attentive to those moments which escaped easy interpretation. The contrast between my encounters with fisheries managers and fishermen provoked me to think about how experience is open to different possibilities through the suspension of identity. My experience of living in Castletownbere could not be separated from the things I was doing there, the everyday encounters, the way experience emerges through encounter and suffuses particular places with meaning that is not immediately understandable. While such experiences may not be sustained outside of a particular occasion there is a discontinuity and contingency that was suggestive in terms of imagining a politics beyond representation.

My field work opened up the idea that experience was not the 'property' of an individual separated from the world. In chapters four and five I drew out the ways in which continuous experience is something that materialises through everyday encounters with the world. In chapter four I contrasted the representation of an individual subject exploiting a 'dumb' natural resource with those experiences which escape it. While fishermen operate within economic relations they also operate within an unpredictable, natural world which presents limitations and opportunities, as well as a living in a particular place layered with meaning. Responding to this context through everyday encounters describes an unfolding, non-instrumental way of experiencing the world. I argued that this continuous experience across people, places and things could be defined as 'commoning' rather than the static 'commons'.

Similarly, in chapter five I argued that many different 'natures' continue to exist outside the technical, bio-economic frame of environmental sustainability. These 'natures' are not generated from discrete epistemological positions which can be communicated.

Rather they are more accurately described as different experiences of being together which emerge as part of an ongoing relationship between a subject and the material world. In the same way that 'commoning' describes a non-instrumental way of relating to the world, and thus an escape from regimes of knowledge that pre-define community and subjectivity, so does the idea of many 'natures' escape the idea of a single, biologically defined nature in need of preservation.

Attuning to these excesses of experience doesn't prevent the exploitation of fish stocks, nor does it offer a ready-made alternative. It does however suggest that fishermen and the natural world in which they operate are not reducible to a single historical narrative that pre-supposes a self-interested individual exploiting discrete natural resources. At the heart of this is the continuity of experience as it materializes in and through the world. Understanding experience as dispersed and relational, emerging in and through the world, beyond theorization or definition, points to the potential of something different. This avoids the temptation of turning to an ontological basis, a subject that is already in existence and open to the idealization of an 'authentic dwelling'.

Re-thinking the politics of sustainability

Two hundred years after the first wave of enclosures Garret Hardin wrote 'The Tragedy of the Commons' (Hardin 1968). This essay re-articulates the consequences of a politics that begins from the need to preserve life (Brown 2010). He writes:

Every new enclosure of the commons involves the infringement of somebody's personal liberty. Infringements made in the distant past are accepted because no contemporary complains of a loss. It is the newly proposed infringements that we vigorously oppose; cries of 'rights' and 'freedoms' fill the air. But what does 'freedom' mean? When men mutually agreed to pass laws against robbing, mankind became more free, not less so (Hardin 1968 : 6).

Hardin's sentiment makes clear that a politics of sustainability cannot begin from the problem of resource scarcity or ecological crisis. These questions are already framed by a need to resolve and manage the problems, a turn towards technical administration and policing. As I have argued in this thesis a politics of sustainability must foreground the political as a space which contests the dominant narrative of ecological modernisation.

This contest does not revolve around questions of efficient resource management but of what kind of natures we want and who is capable of speaking for them. Such debates are not fostered by a populist urgency which tends to dominate discussion of ecological crises. Rather than begin from an already constituted world an alternative politics of sustainability might begin from a more humble approach to the ways in which particular, collective experiences escape dominant representations of individual subjectivity and the natural world. If a politics of sustainability involves a refusal of an increasingly technical, totalizing control of the means of our material production, then there is space for imagining how different social and ecological relations can be developed through everyday practice, a living politics which marks “a move from representation to embodiment” (Papadopoulos 2010 : 135).¹⁰⁵

Understanding political subjectivities as emerging from prior processes and practices of being-together suggests how continuous experience may be significant in the development of an alternative politics of sustainability. This relationship was something which Foucault turned to towards the end of his life. As Lemke writes, for Foucault “[e]xperience is conceived of as dominant structure and transformative force, as existing background of practices and transcending event, as the object of theoretical inquiry and the objective of moving beyond historical limits” (Lemke 2011 : 27).

Foucault described how the rise of biopolitics precipitated new forms of opposition. These forms of opposition formulated counter-claims, demanding recognition and rights in the name of the body and of life. “Against this power”, he writes, “the forces that resisted relied for support on the very thing it invested, that is, on life and man as a living being...[W]hat was demanded and what served as an objective was life, understood as the basic needs, man’s concrete essence, the realization of his potential, a plenitude of the possible” (Foucault 1998 : 144-5). This applies to the commoners in the 18th century who were forced from lands that were not only economic resources but the source of histories, knowledge and experiences: “[t]he land was re-presented as a raw material in need of ‘improvement’ and ‘cultivation’, and no longer as an entity that gave life to

¹⁰⁵ Dimitris Papadopoulos has recently called for an ‘insurgent post-humanism’ which would entail a process of human and non-human ‘commoning’ in order to escape the highly technical, controlled administration of our material, biological and technological lives: “a move from enclosed and separated worlds governed by labour to the *making of ecological commons*” (Papadopoulos 2010 : 135).

'inhabitants', a key term used by those who resisted enclosures" (Marzac 2010 : 83).¹⁰⁶ In the 1960s similar struggles emerged that did not invoke old and forgotten rights but claimed new categories of rights, such as the right to life, to the body, to sexuality (environmental, feminist, sexuality and anti-racist). A significant point about these later political struggles is that they did not take their departure point from any existing identity or ideology but rather began from politics as a living, embodied, everyday practice.¹⁰⁷

In contrast to the nameless, technical 'common' of ecological modernisation a politics of sustainability can be thought to involve a particular collective which claims a right to speak for and name a different 'common' (Phelan 1993). This is not an abstract question but a material one. Speaking for the 'commons' does not mean proposing a universal principle or system on which to re-order society. It entails a particular community of human and non-human entities acting and speaking in a concrete, material context in such a way that it does not 'fit' the consensus on the current vision for a sustainable future.¹⁰⁸ The meaning and value generated within this collective are not then justified or measured by any external arbiter, they emerge, in my imagination, from material, collective experiences that offer a clear contrast to the disembodied, technical and representational modes of the current policing of environmental sustainability. Rather

¹⁰⁶ A recent example of such resistance came in June 2011 when a community of fishermen on the island of Arainn Mhor, off the coast of Donegal, decided collectively that they would begin fishing illegally in order to sustain their livelihoods. The fishermen said that they were 'tired of being treated like second class citizens'. The decision to start fishing illegally in order to maintain a certain 'way of life' was taken by a community who recognized something was wrong, who took it into their own hands to refuse the situation even if it meant breaking the law. This was not decided out of narrow self-interest, a lack of concern for the environment or a lack of understanding about the 'long term' prospects of fish stocks in the North Atlantic (This information is not from my fieldwork but from events documented on a radio program on RTE, 22 June, 2011).

¹⁰⁷ One hundred years after Walton's claim that the 'common' was the property of 'no one, the labourer-poet John Clare wrote that 'nature is the common treasury of all'. From his own experience, rooted in a place, he wrote poems against the enclosures that were happening at the time around him. His poems of protest are not borne from an abstract or legal claim of ownership over the land, rivers and forests being enclosed but a vivid, rich sense of place and experience expressed in his words (Clare 2004).

¹⁰⁸ Gibson-Graham understand capitalism as a contingent set of relations and subjects which, far from being totalizing, is open to contestation in everyday sites and practices. Their research attempts to challenge the tendency to equivalence "under which images and enactments of economic diversity (including noncapitalism) might stop circulating around capitalism, stop being evaluated with respect to capitalism, and stop being seen as deviant or exotic or eccentric- departures from the norm" (Gibson-Graham 2006 : 56). They try to imagine a way that non-capitalist subjectivities can escape definition through capitalism by asserting an entirely different economic subjectivity. This requires moving beyond familiar modes of self-identification as marginalized (outside capitalism), backward (pre-capitalist) or innovative (advanced capitalism).

than being re-interred within the consensus on sustainability the hope is that such experiences can develop ways of producing and naming alternative ecological commons.

To the extent that the current post-political condition, which combines apocalyptic environmental visions with a hegemonic neoliberal view of social ordering, constitutes one particular fiction (one that in fact forecloses dissent, conflict, and the possibility of a different future), there is an urgent need for different stories and fictions that can be mobilized for realization. This requires foregrounding and naming different socio-environmental futures, making the new and impossible enter the realm of politics and of democracy, and recognizing conflict, difference, and struggle over the naming and trajectories of these futures (Swyngedouw 2007 : 36).¹⁰⁹

Swyngedouw's emphasis on the need for 'different stories and fictions that can be mobilized for realisation' suggests the importance of everyday experience in the cultivation of different ecological collectives. While we have become dis-embedded from our existence as beings in nature experience still unfolds in a world which is non-bifurcated. Generating different ways of sustaining collective life would not mean a 'return' to a 'pure' pre-capitalist time which never existed but rather a creative elaboration and expansion of our life-needs in a process of collective development and experiment (Dyer-Witherford 2006).¹¹⁰ As Maria Puig de la Bellacasa writes, we need to find alternative ways of world making that cultivate 'power with' rather than 'power over' (Puig

¹⁰⁹ A different way of expressing the world cannot come *a priori*; language cannot already be in the world. Today, the death of many languages represents not just the end of a syntax but a way of relating to a different world. The struggle for different ecological commons, many different natures, requires different ways of expressing our experience and our power. As Holloway writes in the context of the Zapatistas, a struggle for the commons that has put poetic expression at the heart of its politics: "[w]hat we know is that the realism of power politics failed to achieve radical social change and that hope lies in breaking reality, in establishing our own reality, our own logic, our own language, our own colours, our own music, our own time, our own space. That is the core of the struggle not only against "them" but against ourselves, that is the core of the Zapatista resonance" (Holloway 2005 : 177).

¹¹⁰ Paul Rabinow describes this as a 'practice of making': "This sensibility takes the mode of a keen awareness that the taken-for-granted can change, that new entities appear, that our practices of making are closely linked to those entities, that we name them, that we group them, that we experiment with them, that we discover different contours when deploying questions and techniques. When this sensibility becomes reflexive, it becomes an aesthetic "not of taste nor of beautiful appearance but of the invention of new sensibilities, new concepts, new techniques and ideas of techniques in response to those incommensurabilities that question our practices and that eventalize our relation to them" (Rabinow 2003 : 67).

de la Bellacasa 2010).¹¹¹ Generating these alternatives is not reducible to a proliferation of new ethical lifestyles but holds to the need and possibility of fostering relations that can provide a counter-narrative to ecological modernisation.

The concept of 'commoning', developed in chapter four, offers a way of thinking and practicing a form of imperceptible politics which does not begin from a pre-defined political position or agenda but materialises through non-instrumental exchange and encounter. This is an approach to politics that questions the new grand narratives of 'innovation and sustainability'. But rather than simply opposing them within existing representational spaces it moves towards actualising different natures through combining and fostering new relations between people, places and things, creating more viable forms of life and autonomy.¹¹² This way of thinking and practising a politics of sustainability is not limited to particular places. While 'commoning' may be more associated with those living and working in rural areas the need for different narratives, and thus experiences, of sustainability are just as necessary and possible in urban settings where the discourse of sustainability also imposes forms of exclusion and control.¹¹³

Conclusion

The reduction of ecological crises such as the depletion of fish stocks to a complex array of localized problem solving and increased policing rests on the impossibility of imagining any alternative to the current way of organizing social and ecological relations. The general erosion of debate stems from the framing of the problem in terms of the need to preserve life within an unchallenged global market economy. In this way ecological crises become the point for the extension of a dominant bio-economic rationale rather than a point from which to re-imagine the kind of natures we want. This narrative eclipses

¹¹¹ This echoes the distinction Marcuse made between a Promethean instrumentalism in relation to the natural world and the figure of Orpheus singing the world into creation as a non-teleological process of collective becoming (See Wilding 2008; Morton 2008).

¹¹² An obvious example is the setting up of community gardens. Such spaces do not just produce food, they also generate different social and ecological relations, new forms of knowledge and practice.

¹¹³ The connection between the de-materialization of the rural economy and the growing crisis of urbanization is evident: "[t]he global forces 'pushing' people from the countryside- mechanisation of agriculture in Java and India, food imports in Mexico, Haiti and Kenya, civil war and drought throughout Africa, and everywhere the consolidation of small holdings into large ones and the competition of industrial-scale agribusiness- seem to sustain urbanisation even when the 'pull' of the city is drastically weakened by debt and economic depression" (Davis 2006: 16-17). It is interesting to imagine or think not just how this dynamic can be halted but also how the city can become a more sustainable site of life.

those experiences which continue to unfold within a particular place, materially grounded, relating to the natural world in ways which are not entirely subsumed within an 'anarchic' capitalist ontology, or reducible to technical regulation within a re-configured bio-economy.

At the same time many different ways of relating to, producing and experiencing the material world continue to escape this singular neoliberal narrative. Fishermen are not, nor ever were, simply economic actors operating within a mode of industrial capitalism. Nor are they rational 'stewards of the sea' adapting to the 'needs' of the marine environment and the global economy. Between these two normalizing discourses are other experiences of place and time which embody different relations to the material world, experiences which are imperceptible and excessive because they make no sense within the current 'reality'.

In terms of further research this suggests a theoretical and practical attunement to the innumerable modes of experience encountered in everyday life. This approach is eager to open up and express those potentialities that are suppressed or limited by the framing of the possible: the naturalised discourses and subjectivities that order and arrange social and economic relations. This critical practice involves a different perceptual alignment: not simply to identify and criticize the existing social order (and in effect reify it), but to point to its radical contingency and thus appeal to those experiences which are beyond or outside the realm of the sensible, the 'normal', the 'rational' in an effort to propel these different possibilities into the realm of the possible. As De Certeau writes: "[w]hat is the status of so many other series, which, pursuing their silent itineraries, have not given rise to a discursive configuration or to a technological systematization? They could be considered as an *immense* reserve constituting either the beginnings or traces of *different developments*" [my italics] (de Certeau 1988 : 47-8).

At a time when different ways of being together are becoming less and less possible the question of how to generate ways of 'commoning' not only as moments of relief but as sustainable alternatives has become more urgent. Rather than imagining a once 'golden past' of common lands before the onset of 'modernity', or trying to imagine what a future 'utopia' might be like, the argument being made here is that there many possibilities for different worlds that exist in the present, in the antagonisms that erupt in

daily life, the ways in which we, as subjects, and the world, have not been fully subjected to a 'modern' enclosure. This relates to the question of excessive or continuous experience, the everyday moments of escape from representational modes of being, and how these can be related to a more coherent project that seeks to generate genuinely sustainable forms of living.

Appendix A. Castletownbere Fishing Port

Castletownbere is the largest town on the Beara peninsula, in Cork, in the South West of Ireland. The town had a population of 868 in 2008 with a further 1,000 in the catchment area. It is the second largest fishing port in Ireland and the largest whitefish port. Fishing is the main economic activity.

In 2009 there were 2,674 landings in the Castletownbere Port Office Area, accounting for 13% of the total number of landings in the state. These landings accounted for 10% of the total catch into Ireland by weight (23,261 tonnes) and 20% by value (€40,575,350).¹¹⁴ As well as the value from landings and processing there is additional income from the landing of foreign vessels in the harbour. Each landing is worth approximately €10, 000 through local purchases including fuel (€4, 500) and food (€2000).

Castletownbere Co-Op was founded in 1968 to sell the fish of its members and to sell them fuel. It has 69 members with 40 boats between them. The boats employ about 220 of which the majority are non-Irish. It employs about 75, between full-time and part-time people. It has three processing factories: for white fish, pelagic fish for filleting, and salmon processing from the salmon farms. Shell Fish de la Mer is a processing and distribution company and the largest employer in the area, employing some 130 staff.

¹¹⁴ The source for the figure is the Sea Fisheries Protection Agency (SFPA) website. The SFPA are responsible for fisheries controls and safety as well as monitoring landings and seafood sales (see appendix B)

Appendix B. State Institutions

Bord Iascaigh Mhara (BIM)

BIM is the state agency with responsibility for implementing the development strategy for the fisheries. Since its introduction in 1952 BIM has overseen the expansion and modernisation of the fleet, the development of wholesale cooperatives and the establishing of the regional POs, as well as raising awareness on the domestic, and increasingly foreign, market for Irish seafood. The agency's mission is: "[t]o provide commercially relevant and innovative services to the Irish seafood industry that drive growth opportunities, add value, enhance competitiveness and create jobs in a sustainable, natural resource based industry for the benefit of coastal communities". Over the last decade BIM development officers have been located in regional areas where development centres were established. Their roles on the ground range from technical support for new conservation measures and fish farming, assisting in applications for funding and running educational and training courses. In the last two years the agency has gone through a difficult time. With government cut-backs there was a suggestion that it would be incorporated into Bord Bia, the Irish food board. Having reduced staff numbers by a third their operations have been limited.

<http://www.bim.ie/>

Marine Institute

The principle Irish agency involved in research and marine resource management is the Marine Institute. Established in 1991 its mission is "to undertake, to co-ordinate, to promote and to assist in marine research and development and to provide such services related to marine research and development that, in the opinion of the institute, will promote economic development and create employment and protect the marine environment". The Institute has become more central to the fisheries and the marine over recent years. The principal document covering its objectives is 'Sea Change, a Marine Knowledge, Research & Innovation Strategy for Ireland' covering the period 2007-2013.

<http://www.marine.ie/Home/>

The Sea Fisheries Protection Authority (SFPA)

The Sea Fisheries Protection Authority (SFPA) was established under the provision of the Sea-Fisheries and Maritime Jurisdiction Act 2006 and is Ireland's competent authority for Seafood Safety and Sea-Fisheries Protection. The SFPA's mission is: "The Sea Fisheries Protection Authority is committed to the effective and fair regulation of the sea fishing and seafood sectors that fall within our mandate. This means all fishing vessels operating within Ireland's 200-mile limit, Irish fishing vessels wherever they operate, and all seafood produced in Ireland wherever it is marketed."

<http://www.sfpa.ie/>

Department for Agriculture, Marine and Food

This is the latest incarnation of a department which has changed names three times in the last nine years. Between 2007- 2011 the fisheries were under the Department of Agriculture, Fisheries and Food. Between 2002- 2007 they were within the Department of Communications, Marine and Natural Resources.

<http://www.agriculture.gov.ie/>

Federation of Irish Fishermen (FIF)

The Federation of Irish Fishermen (FIF) was established in 2007 and is the umbrella organisation for four Irish Fish Producer Organisations (FPOs). These are: The Irish Fisher Producers Organisation Ltd. (IFPO), the Irish South and East Fish Producers Organisation Ltd. (IS&EFPO), the Irish South and West Fish Producers Organisation Ltd. (IS&WFPO) and the Killybegs Fishermen's Organisation Ltd. (KFP). The role of the FIF is to represent the Irish fishing industry at national and European levels of policy-making decisions. The Irish South and West Fish Producer's Organisation Ltd. (IS&WFPO) was established in 1995 and represents the Castletownbere fishermen. The purpose of the Producer Organisation is to mediate between the Irish and European governments and the fishermen. This is almost entirely top-down and reactive. It does not operate as a forum for fishermen to voice their concerns.

<http://www.fif.ie/>

Appendix C. Respondents

Except where noted all respondents have been given pseudonyms. In order to protect their identity I have not included any details about their position or work. This is a list of the respondents quoted in the thesis.

James Carney, Marine Institute.

Simon Casey, BIM.

Jill Donovan, Conservation scientist/ researcher.

Jane Downing, BIM.

William Jones, BIM.

Sam Lee, Marine Institute.

Dave Murphy, Researcher, ex-BIM.

John Nolan, Head of Castletownbere fisheries cooperative (real name).

Jean O'Sullivan, BIM.

Gerry Owens, BIM.

Maeve Reilly, Bord Iaschaigh Mhara (BIM).

Brid Smith, Department of Agriculture, Marine and Food.

Appendix D. Fishing Sources

In the course of my fieldwork I went fishing fifteen times and worked on a mussel boat five times. Thirteen of the fishing trips were on inshore boats, and two were on offshore trawlers (see appendix E).

I arranged to meet and interview two fishermen who I each spoke to twice.

I went out with one fisherman, who I have called Tom, five times. He had a ten meter inshore boat. We went potting for prawns three times, and tangle netting for spider crab and flat fish twice.

Besides Tom I always went fishing with different fishermen. The fishermen were all local except for one, who I have called Joe, who lived in Kerry.

The inshore fishing ranged from crab and lobster potting, to line fishing for mackerel, to trawling for prawns and flatfish, to hauling nets.

The offshore fishing involved one trip fishing for a variety of whitefish and one trip fishing for tuna.

Appendix E. Structure of the Irish Fishing Industry

There are roughly 1800 vessels in the capture fisheries made up of two distinct sectors defined by the type of fish targeted: the pelagic fishery and the polyvalent fishery.

Structure of Irish Fishing Fleet (Cawley Report 2006)

Segment		No. of vessels	Employment		
			Full-time	Part-time	Total
Pelagic		23	276		276
Polyvalent	Inshore <12m	1,360			2,312
	Coastal 12-18m	100			320
	Near-water 18-24m	113			604
	Offshore >24m	60			780
	Other	17			176
Beam trawler		13	73		73
Specific		158	255	191	446
Total		1,844	3,924	1,063	4,987

Landings by fishery (Cawley Report 2006)

Segment	Landings by weight and value, 2004/5	
	Tonnes	Euro '000
Pelagic	226,783	56,287
Whitefish	27,551	51, 913
Shellfish	31,603	55,336
Total	285,937	163,536

The total value of seafood sales in 2005 was 702 million euro. 311 million was from domestic sales (136 million into retail, 174 million into food service) with 354 million in export sales. A further 37.5 million was made from direct landings of fish by Irish vessels in foreign ports.

The pelagic fishery operates at the largest scale catching large volume, low value

fish such as herring, mackerel, horse mackerel and scad that amass in large shoals at the top of the sea (pelagic denotes fish species which swim near the surface of the water).



Fig. 1. 1. Pelagic vessel

Principally based in the largest fishing port in Ireland, Killybegs, the pelagic fleet is highly rationalised with most vessels capable of fishing in non- European waters. The pelagic landings are mostly sold as unprocessed, bulk seafood to Africa and the Far East. The limited number of actors in the industry, the relative abundance of the resource and stability of the market and the size and rationalisation of the industry make it one of the best managed sectors in the fisheries. Only two fisheries in Ireland have received the internationally recognised Marine Stewardship Council (MSC) award, recognising the biological sustainability of a fish stock, and both are mackerel fisheries.

The polyvalent sector makes up the rest of the fishery and is characterised by the ‘mixed’ nature of its fleet: it includes a great diversity of fish species, geographic areas and scales of fishing capacity. As a result the fleet is further sub-divided into categories. By far the largest in terms of number is the inshore fleet. These boats are less than 12 metres and generally target non-quota shellfish (crab, lobster, scallop, whelk) within Ireland’s 12 mile territorial limit.

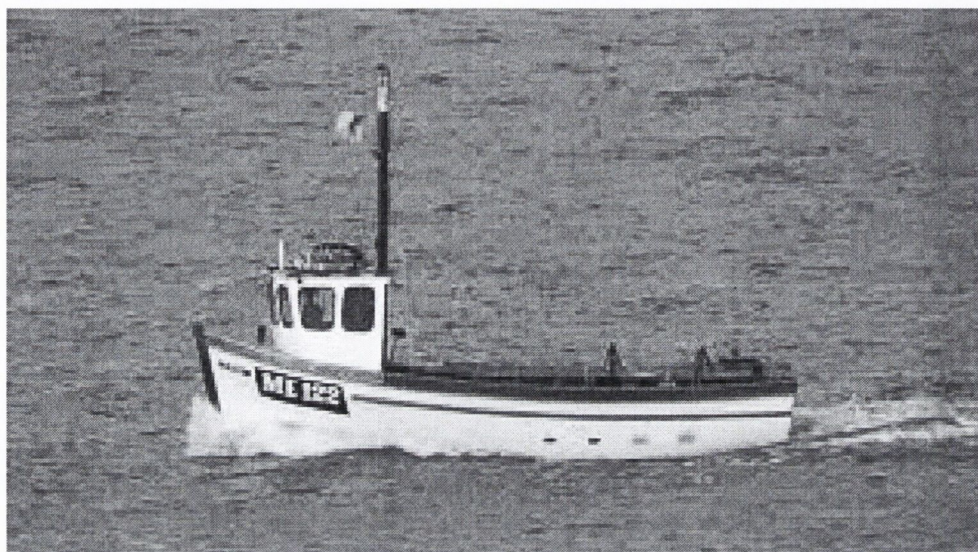


Fig. 1. 2. Inshore vessel

Fishing within Irish waters means they are not regulated by the CFP. However they do fall within other environmental regulations, namely the Birds and Habitats Directive. Until recently the fishery was managed through a small number of technical conservation measures. Partly as a response to the Natura 2000 requirements management frameworks for each of the species are being drawn up and in some cases implemented currently. It is difficult to give an accurate figure for the number of active boats in this area as many are inactive and some may be small punts used for a short season in the summer.

Boats above 12 metres generally target different types of demersal species such as cod, hake, haddock, plaice, monkfish (demersal denotes fish species which swim near the sea floor) and nephrops (prawns, shrimp) in the waters around Ireland. They are further divided on the basis of size, which affects their quota allocation. There are about 373 boats altogether with a small number of more specialised vessels such as crab vivier boats that fall into their own category. The offshore fleet is under most pressure within the CFP. Demersal species of fish are less populous than pelagic species and are thus in a more critical state. Many demersal species also swim together making technical conservation measures which see to limit the catch one one fish, for example cod, difficult. Restructuring of the demersal fishing fleet has been taking place through the decommissioning schemes since 2002.



Fig. 1. 3. Whitefish (demersal) vessel

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