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Commodity fiction and cod fishing

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This paper deals with the commoditisation and pricing of environmental goods, in particular the practice and social theory of individual transferable quotas (ITQs), emphasising the management system introduced in Icelandic fishing in 1984. Quotas, I argue, focusing on discourses on the environment and economic efficiency, signify the apex of what Gudeman (1992a: 151) refers to as the «modernist production regime», a regime based on the idea «that the human and natural world can be organised and subjected to rational, totalizing control». Thus, Icelandic fisheries discourse is increasingly textual and hegemonic, dominated by marine scientists, resource economists, and state officials. At the same time, the allocation and exchange of quotas are matters of an ongoing moral debate. This debate, I suggest, reflects a deeper concern in Western society with the status of money and monetary exchange, a concern that has a number of parallels in other parts of the world. My aim is not to evaluate the potential economic and ecological usefulness of ITQs as management regimes, but rather to draw attention to the implications of commoditisation for the ways in which people think and talk about the environment.

Property rights in environmental «goods»

In many Western economies market approaches have been extended to environmental goods – partly in response to what environmental economists refer to as market failures caused by externalities. One example of the extension of market approaches is represented by systems of individual transferable quotas, emphasising sustainable resource use and

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the role of commoditisation, private property, and market regulation. Such systems have captured the imagination of modern scholars and policy makers; currently, for instance, they are applied to pollution-generating industries with the allocation and marketing of emission permits (Tietenberg 1994; Bohm and Larsen 1994). The editors of *Rights-Based Fishing* suggest that «ITQs are a part of one of the great institutional changes of our times: the enclosure and privatization of the common resources of the ocean» (Neher et al. 1989: 3). Many fisheries in the world, indeed, are «modelled» along these lines, including several ocean fisheries in the United States, Canada, Australia, New Zealand, Norway, the Faeroe Isles, and Iceland. Given the significance of the market in Western political economy and discourse, the study of these developments represents an important aspect of a rapidly emerging economic anthropology at home (Dilley 1992).[1] Studies of quota systems in fisheries, however, and their effects are still in their infancy (for some examples, see Dewees 1989, McCay and Creed 1990, Pálsson and Helgason 1995).

During most of Icelandic history, the principle of common use-rights has been applied to the resources of the sea (Pálsson 1991); as in many other parts of the Western world, the ocean was generally regarded as a boundless common resource. With the development of the market economy early in the twentieth century, Icelandic catches multiplied as boats and fishing gear became ever more efficient. As a result, some of the most important fishing stocks were heavily overexploited. In 1976, the Icelandic government extended the national fishing limits to 200 miles to be able to prevent overfishing of its major fishing stocks, particularly cod. This marked the end of the last «Cod War» with Britain and West Germany. The domestic fishing fleet, however, continued to grow and catches, relative to effort, continued to decline. The first serious limitations on the fishing effort of Icelandic boats were temporary bans on fishing on particular grounds. The measures that were initially adopted internally to organise Icelandic fishing, were designed not to deliberately exclude anyone from fishing but to affect producers equally. In theory, the commoners had equal rights to national resources, including fish. While there was always some degree of inequality in these matters, limitations on access tended to resonate with the dominant ethos of the independence rhetoric of egalitarianism.

By 1982, Icelandic politicians and administrators were increasingly of the opinion that radical measures would be needed to limit effort and prevent the «collapse» of the cod stock. At the annual conference of the Fisheries Association in the same year, most interest groups within the fishing industry were in favour of an individual boat-quota system suggested by the Union of Boat-Owners, a system that would divide a reduced catch within the industry itself on the basis of previous catches or «fishing history» (*aflareynsla*). The precise allocation of catches was debated, until it was agreed late in 1983 that each boat was to be allocated an annual quota on the basis of its average catch over the past three years. To this effect all fishing vessels over ten tons that had previously been active in the cod-fisheries – a total of 667 vessels – were allotted uneven quantified rights of access to the fishing stocks, quota «shares» as they were called (*aflahlutdeild*).

1. Related issues have been addressed for some time by both sociologists and historians (see, for example, Simmel 1978[1907], Hirschman 1982, Granovetter and Swedberg 1992).

This meant that some boats would get higher quotas than the rest of the fleet, a fundamental departure from the egalitarian approach of traditional policy.

When the ITQ system was first implemented in 1984, each fishing vessel over 10 tons was allotted a fixed proportion (*aflahlutdeild*) of future total allowable catches of cod and five other demersal fish species. Catch-quotas (*aflamark*) for each species, measured in tons, were allotted annually on the basis of this permanent ITQ-share. Currently, a boat owner is allotted quotas in several species (cod, haddock, saith, etc.), but the overall size of each individual quota is measured in terms of a single unit, cod equivalents (*þorskígildi*) – an aggregate measure based on the market value of each species. Thus, while a vessel's annual ITQ allotment would vary in size with the total allowable catch, its permanent ITQ-share remained constant. Moreover, a new licensing scheme stipulated that new vessels could only be introduced to the fisheries given that one or more existing vessels of equivalent size were eliminated in return.

In order to achieve maximum efficiency, many economists assume, fishing rights must emulate private property rights to the fullest extent possible. In effect, this requires them to be incorporated into the market system, where they need to be quantifiable, fully divisible and independently tradable rights, held by individuals and companies on a long-term basis. ITQ systems are generally thought to be a particularly suitable means of achieving these ends. To begin with, however, the Icelandic ITQ system only partly conformed to the ideals of commoditisation. While ITQ-shares could be leased relatively freely, they could only be bought or sold *en masse* along with the fishing vessel to which they were originally allotted; that is, they were not fully divisible or independently tradable. Moreover, the ITQ system had not been permanently instated. Quotas did not, therefore, constitute true private property rights. Nevertheless, the system introduced in 1984 was an individual *transferable* quota (ITQ) system, albeit one which set restrictions on transferability.

Eventually, in 1990, several radical alterations were made to the existing ITQ system. Firstly, the effort-quota system was abolished, and all the vessels previously fishing under that system were incorporated into the ITQ system proper. Secondly, the system was further extended by allocating ITQ-shares to approximately 900 smaller vessels (6-10 tons) that had been fishing under fleet-quota restrictions. As a result, the number of ITQ-holders increased by 156% (from 451 in 1990 to 1155 in 1991). Thirdly, the ITQ system was extended to include the fisheries of five new species: herring, capelin, shrimp, lobster and scallop. Finally, and arguably most significantly, ITQs became fully divisible and independently transferable, making ITQs more akin to permanent property rights. These changes, in effect, marked the full institution of the ITQ system in the demersal fisheries, culminating the process of enclosure and privatisation initiated in 1984.

«Profiteering» in «uncaught fish»: the moral discourse of Icelanders

Among Icelanders there has always been much opposition to the quota system in the fisheries. An important objection has to do with the concentration of quotas. Data on quota allocations show that there have been radical changes in the total number of quota holders, a reduction from 535 to 391 (27%), from 1984 to 1994 (Pálsson and Helgason 1995). Another measure of concentration, provided by examining the relative holdings (cod equivalents) belonging to different groups of quota holders, shows that the proportion of the quota-holdings of the «giants» in the industry has rapidly increased in one

decade, from 27.9% to 49.7%.[2] During the same period, the proportion of the quota belonging to the smallest owners, the «dwarves», has decreased from 12.5% to 8.7%. Thus, quotas are increasingly concentrated at the top, particularly with the removal of restrictions on quota transfers in 1990. Currently, only twenty six companies (the «giants») own about half of the national quota. Such concentration – partly, at least, the result of increasing returns to scale in production – parallels that of many other industries. As a large part of the Icelandic commons has been reserved, however, for the privileged use of relatively few companies, Icelanders no longer have comparable rights in fish. This fact has lead many fishermen to describe the quota system in feudal terms, referring to the boat owners that control most of the quotas as «quota-kings» or «lords of the sea».

The moral discourse on privatisation and exchange is a complex one. The direct exchange of equivalent quotas for different species (for instance cod for haddock) – reciprocal leasing or «quota bartering» between two quota holders – is not evaluated in loaded terms. Another kind of exchange, «quota profiteering» (*kvótabrask*), however, is a matter of intense moral debates. Significantly, fishermen went on a national strike in January 1994, protesting against «quota-profiteering», leading to a two-week stand-still in the fishing industry; the folk term itself of «quota profiteering» is subject to debates and it has a number of moral connotations (see Helgason 1995). To begin with, much of the opposition to quotas focused on the conversion of uncaught fish to private assets. Transactions with uncaught fish, it was argued, violated the rule of capture and the common property nature of the fishing stocks. The boat owners' view, in contrast, emphasises (echoing bioeconomic theory) that fishermen fail to understand what fisheries management is all about and that personal rights in uncaught fish represent one of the key conditions for responsible resource-use, the long-term rational management of fisheries.

Another objection to profiteering concerns the role of money in the manifestation of fishing rights as exchangeable goods. With the new fisheries laws which enabled the free transfer of quotas, quota markets became possible and for many fishermen such markets are corrupt institutions. A further criticism relates to the «tenancy system» (*leiguliðakerfi*) whereby the big quota holders temporarily rent their privileged right to fish to those who have little or no quota. This practice has generated several forms of patron-client relationships. One example is represented by informal deals between small-scale fishermen and vertically-integrated firms concerning the supply of raw material to processing plants; boat owners without quota (the «serfs») are granted access to the fishing stocks – the equivalent of the medieval estate – on the prerequisite that they hand over their catch to processing plants (the «lords») in return for a fixed price. Fishermen frequently argue that excessive quotas, those that are not used by quota holders, should not be leased for money but returned to a common pool and redistributed to other boat owners who have more use for them. Such a view reflects the medieval discourse mentioned earlier on appropriation and freeloading.

There has continually been much confusion and debate about the kind of rights quotas confer on their holders. Paradoxically, while

2. «Giants,» «large» owners, «small» owners, and «dwarves» were heuristically defined as those who own more than 1% of the total quota, 0.3-1%, 0.1-0.3%, and less than 0.1%, respectively (Pálsson and Helgason 1995).

economists generally view individual transferable quotas as being synonymous with property rights (see, for example, Scott 1989, Neher *et al.* 1989), this fact is staunchly denied by government officials in Iceland. Administrators point to the first article of the fisheries legislation which categorically states that the fishing stocks in Icelandic waters are the common property of the nation, emphasising that quotas merely represent temporary use-rights that can under no circumstances be defined as the private property of individuals. Nevertheless, it seems that boat owners have become the *de facto* owners of the fishing stocks.

One of the reasons for the current moral rejection of quotas and their marketing has to do with the politics of independence and the history of the nationalist movement. The principle of common rights in fish continues to be an important dimension in Icelandic society – equivalent, perhaps, to the sentiments codified in the «public trust doctrine» in the United States (Macinko 1993). In both cases, notions of common access to fishing space carry a heavy symbolic and ideological load, combining concerns for national sovereignty and political autonomy with those of equity and personal autonomy. During the so-called «Cod Wars» with Britain and West Germany in the 1970s, Icelanders claimed national ownership of the fishing stocks in coastal waters, in an attempt to carve a territorial as well as a symbolic space for themselves in the larger world. The culmination of these events was frequently described by Icelanders as the final stage of the Icelandic nation's struggle for independence. While indigenous opposition to the commoditisation of uncaught fish is rooted in Icelandic history, it also echoes, as we will see, more general «Western» concerns.

The singular and the saleable

In all societies, there exist cultural rules as to what can be bought and sold and under what conditions; some things, items, or services are singular or unexchangeable, while others are easily saleable – «perfect» commodities being those which are exchangeable with everything else. While the definition of commodities and the scope for their exchange vary from one society to another, they should not be regarded as fixed or given but rather as entities in an ongoing process. Kopytoff suggests (1986) that while the «drive to commoditization» is a universal predicament, present in both capitalist and non-capitalist economies, it is shaped by both exchange technology and social institutions: «One perceives . . . a drive inherent in every exchange system toward optimum commoditization – the drive to extend the fundamentally seductive idea of exchange to as many items as the existing system will comfortably allow. . .» (Kopytoff 1986: 72). Given such a perspective, commoditisation and its counter drive, singularisation, pose intriguing anthropological questions: What explains their relative importance and the directions they take in different times and contexts? Why is it that such processes are frequently hotly contested? How are different kinds of exchanges morally evaluated and what accounts for such evaluations?

Polanyi points out (1965) that the «commodity fiction» – the preoccupation with exchangeable things – is one of the major currents of our times. Many other (equally loaded) terms have been used in this context, for instance «commodity bias» (Hirsch, cited in Zelizer 1988) and «market imperialism» (Walzer, cited in Belamy 1994: 353). Resistance against commoditisation is a frequent theme in many ethnographies. Often such resistance is underlined by the distinction between gift and commodity exchange; moral peril attaches to attempts to make personal gifts and services into objects of impersonal transaction. Thus, a Hindu priest is likely to be condemned for «selling» salvation and ato-

nement. Often, too, those who get rich as a result of a growing cash economy, are accused of contracting with the Devil; see for instance, Taussig (1980) on Colombia. In some cases, particular kinds of money are classified as evil. Thus, the Luo in Kenya speak of «bitter» or «dirty» money, money earned through lotteries or sales of certain valuables, especially land; the registration of formerly communal land as private property began in the 1950s as the British colonial government launched its plans to «individualise» land, the first nation-wide privatisation scheme on the African continent (Shipton 1989: 30). There is a tendency among anthropologists to interpret such resistance to commoditisation as the response to colonialism. Willis (1973), for instance, has analysed a particular myth of the Fipa of Tanzania as an indigenous critique of colonialism. The negative evaluation of the market and commodity exchange is not a universal pattern, however, for sometimes commercial transactions are seen in a rather benevolent light while gifts are treated as the embodiment of evil forces; see Parry (1989: 65) on an Indian case.

Western market societies are no exception to the rule about the radical distinction between the singular and the saleable; here, too, some items and services are taken to be beyond the laws and the realm of the marketplace. Zelizer provides an account of the cultural resistance in nineteenth-century America to the marketing of human life in the form of life insurance; such resistance to «betting» with one's life against insurance companies, she argues, «introduced structural sources of strain and ambivalence» (1992: 287). Benefits from life insurance were sometimes regarded as «dirty money». Recent developments in genetic engineering and medical technology, including the practices of surrogate motherhood and the marketing of «body parts», raise even stronger objections and more pressing ethical debates. Munzer (1994) explores the «uneasy case» against recognising property rights in human organs, tissues, fluids, cells, and genetic material. For some, somatic commoditisation is inhuman and degrading, an offence against personhood and dignity, but for others it represents a humanitarian effort in that it increases the supply of body parts and, therefore, saves lives. The restriction of human transplants to particular «spheres» of exchange is an especially uneasy case; thus, the recent ruling by an Orthodox Israeli rabbi that Jews may donate organs but only to other Jews has created much fury.

Criticism of commoditisation and the market often draws upon the medieval European «house view» of profit, money, and the market (see Parry 1989, Gudeman 1992a, 1992b), a view formulated by Aristotle, Thomas Aquinas, and the Schoolmen, and later developed by Marx, Simmel, and several other social theorists. In medieval Europe, bartering and exchange were often seen as evidence of destructive passions (Hirschman 1982). Traces of the European discourse on profiteering, freeloaders, appropriation, and the abuse of the rule of reciprocity are evident in the Icelandic sagas as well as other medieval manuscripts (see Pálsson 1995a: Chs. 4 & 5). Medieval merchants were continuously attacked for selling something which they could not possess on the grounds that their profit, particularly from lending money, implied «a mortgage on time, which was supposed to belong to God alone» (Le Goff, cited in Parry 1989: 82).

Modern critics of the process of commoditisation and the modernist project generally often bask in nostalgia and utopia. Thus, market approaches are frequently assumed to obliterate egalitarian sensibilities and communitarian notions of stewardship and responsibility. In German thought the notions of «community», *oikos*, and *das ganze Haus* have frequently supplied a radical economic

«Other», the ground from which to project the failures of economism and its notion of *Homo oeconomicus* (Kahn 1990; see also Selznick 1992). The concepts of the perfect society and its antithesis, popular themes in the genealogy of Western scholarship generally, have taken many forms, all of which assume, as Berlin points out (1989: 120), a Golden Age when «men were innocent, happy, virtuous, peaceful, free, where everything was harmonious», followed by some kind of catastrophe – «the flood, man's first disobedience, original sin, the crime of Prometheus, the discovery of agriculture and metallurgy, primitive accumulation, and the like». It is important to go beyond mere rhetoric and ideology and try to establish the conditions for commoditisation and its cultural evaluation. The rest of this paper addresses this issue by focusing on fisheries.

Shrinking seas and modernist regimes

Long ago, Marx argued that in the case of «extractive industries» such as fishing, the «material for labour is provided directly by nature» whereas other modes of production deal with «an object of labour which has already been filtered through labour» (1976: 287).[3] Such a notion of fisheries was, no doubt, reinforced by the widespread Western idea that the supply of living resources in the ocean was a boundless one. Thus Thomas Huxley wrote in 1883: «I believe that the cod fishery ... and probably all the great sea-fisheries are inexhaustible; that is to say that nothing we can do seriously affects the number of fish» (cited in McGoodwin 1990: 66). Neither position, of course, is tenable in the modern world. Many of the world's major fishing stocks are threatened with both over fishing and pollution – oil, radioactive waste, and other by-products of human activities – and fisheries more and more resemble other branches of industries in that the resource base is increasingly subject to deliberate human impact – «filtered through labour», in Marx's terminology. For one thing, while the structure and size of extensively migratory fish populations are continually subject to extreme uncertainties, the boundaries of «wild», «extractive» fisheries are increasingly becoming blurred, with exponential growth in sea ranching and fish farming, not to mention genetic mix and engineering.[4] Consequently, to think of the oceans as a boundless storehouse of living resources unaffected by humans, as a source of «material for labour ... provided directly by nature», really does not make much sense.

While marine sciences restrict the scope of fishing operations – in particular, setting the limit of the total allowable catch (TAC) for each different species during a fishing season, on the basis of their measurements and estimates – it is primarily the science of resource economics that provides theoretical rationale for the economic management of fisheries. Economists commonly argue, with reference

3. Elsewhere, Marx forcefully argued against such a theoretical dualism, emphasising that nature and society were not separate realms (see Pálsson 1996).
4. While sea ranching and fish farming have a long history in Asia, they were relatively unknown in the West until this century. An early scholarly paper on the age of fish and their economic exploitation, written in 1759 by Hans Hederstrom (a Swedish clergyman), which foreshadowed the bioeconomics of aquaculture, remained largely unknown in academic circles for a long time. «[I]f I know», Hederstrom argued (1959: 163), «that within a few years ... the fish will attain the size allotted to it by the Creator, I am rather willing to spare it in order to derive from it the greatest profit»: «I wish to believe that with an increased knowledge about these matters at least some more reflecting husbandsmen will be more prepared to spare the young fish until it has reached its full size. To these will belong especially those who are the owners of lakes and thus sole beneficiaries of their good economy».

to the «tragedy of the commons», that over fishing is inevitable as long as the fishing grounds are defined as «common property», i.e. where access is free for a large group of producers, and that the only realistic alternative – euphemistically defined as «rights based» fishing (see Macinko 1993: 946) – is a quota system. By instituting private property rights to the fishing stocks in the form of quotas, and letting the market regulate their distribution, rational production will theoretically be attained. Assuming a sense of responsibility among the new «owners» of the resource (the quota holders) and an unhindered transfer of quotas from less to more efficient producers, it is argued, both encourages ecological stewardship and ensures maximum productive efficiency (see Scott 1989: 33). Badly run fishing operations will be forced to sell their quotas and get out of business, making way for more efficient producers to increase their share in the fishing stocks.

The conditions for pricing

Some environmental goods are more susceptible to commoditisation than others. Thus, rights in uncaught whales are probably easier to quantify and commoditise than those pertaining to shrimp.[5] While for many environmentalists, whales are not «goods» but quasi-human beings and, therefore, not subject to commoditisation, some of them have recommended marketing rights in whales for the purpose of protecting them from human predators. More generally, given the complexity and multiple attributes of environmental goods vis-à-vis the homogenising and objectifying influence of pricing, there are good practical grounds for questioning the feasibility of their commoditisation. Even though such goods may be easily demarcated and priced, they are part of a larger system and have a series of interrelated functions. Cod may be easily separated from the rest of the ecosytem of the sea, but they are part of a food-chain that includes – apart from cats and humans – capelin, seals, and whales. By removing them from the sea one necessarily affects relations between other species and these species have their own ecological functions although they may not be economically «useful». Likewise, by *preventing* the removal of a particular species from the ecosystem one may significantly affect the rest; thus, campaigns against the hunting of marine mammals imply that whales and seals increase in number and the species they prey on (including cod) correspondingly decrease, much to the chagrin of many fishermen.

A related issue concerns the technology of appropriation. While an environmental good may be easy to demarcate, its appropriation may necessitate the waste of other environmental goods. This is particularly evident in many fisheries. A recent report provides an estimate in the discards of «bycatch» in commercial fisheries – low-value species that are «accidentally» caught and discarded on the spot – of 27.0 million metric tons every year (*A Global Assessment of Fisheries Bycatch and Discard* 1994). Some technologies generate more discards and higher mortalities than others; shrimp trawls alone account for more than one third of the total world discards.

5. Significantly, perhaps, environmentalist groups have successfully campaigned for the «adoption» of whales while a similar proposal for shrimp would probably be an economic disaster. Somewhat surprisingly, with the modernist idea of the engineering of the oceans and resource management there was a rather sudden shift in Western attitudes to aquatic mammals (Kalland 1993); whales ceased to be a resource – just-like-any-other-fish – and became quasi-human beings. Adopted whales need not, however, be antithetical to the modernist regime. Giant marine mamals seem to be ideally suited for taking on the roles of the gold fish in the great aquarium of the ocean.

Much of this happens in the absence of a general pricing mechanism and a popular proposal for remedy is to value all the species involved and create property rights in them, i.e. to allocate catch-quotas. General commoditisation may, however, significantly *contribute* to the waste of living resources, increasing discards. Since quotas are fixed and excessive catch is often treated as a crime, a quota holder tends to land only the portion of the catch which generates the highest income. This usually entails discarding small and immature fish – «high-grading», in everyday language. Discarding and high-grading seem to be major problems in several fisheries managed by quotas, including the Icelandic one. Some evidence, then, suggests that quota systems in fisheries result in erosion of ecological responsibility.

This means that many environmental goods and services need to be understood in a holistic manner, not as atomistic objects but as parts of a larger complex. Fundamental environmental choices, Vatn and Bromley argue, «will continue to be made without prices – and without apologies» (1994: 145). Such a position is supported by recent empirical studies of «surprises» and «chaotic» processes (Worster 1990, Holling and Bocking 1990). Wilson and associates (1994) suggest that the «numerical» approach of current resource economics and marine biology, an approach emphasising single species, linear relationships, and states of equilibrium, fails to account for the realities of many fisheries. Their empirical work shows that while fisheries are deterministic systems, because of their extreme sensitivity to initial conditions even simple fish communities have no equilibrium tendency. As a result, management faces forbidding problems when trying to explain the noise in ecological relationships. For example, it has been said about the relationship between recruitment and stock size, often a key issue for managers, that «the degree of accuracy and the completeness of knowledge required for prediction are far beyond any capabilities we might expect to achieve in a fisheries environment» (Wilson *et al.* 1994: 296). Therefore, it becomes difficult, if not impossible, to know the outcomes of management actions such as quotas.

This partly accounts, along with the practice of discard and high-grading, for the failures of many attempts to manage fisheries (see McGoodwin 1990), although the sheer level of fishing effort is, no doubt, a major problem generally. After more than a decade of stringent quota management and redistribution of assets, the major Icelandic fishery (the cod fishery) is in a critical phase. The relative failure of the quota system and the modernist regime of recent years to deliver the goods they promised and the severe social and ethical problems of inequality they have raised, suggest that it may be wise to look for alternative management schemes emphasising the practical knowledge of the fishing industry. Those who are directly involved in resource-use on a daily basis may have the most reliable information as to what goes on in the sea at any particular point in time. Skippers' extensive knowledge of the ecosystem is the result of years of practical enskilment, the collective product of a community of practice (Pálsson 1994, 1995b). Formal schooling is essential for skippers, but they all seem to agree that most of their learning takes place «outdoor», in the course of fishing. This is emphasised by frequent remarks about the «bookish», «academic» learning of those who have never «had a pee in a salty sea» (*migið í saltan sjó*). Fishermen question the basic assumptions of marine biologists, arguing that knowledge of fish migrations and stock sizes is too imperfect for making reliable forecasts. «Erecting an ivory tower around themselves», one skipper argued, «biologists are somewhat

removed from the field of action; they are too dependent on the book».

Icelandic skippers discuss their own research strategy as a dynamic and holistic one, allowing for flexibility in time and space. Usually, their accounts emphasise constant experimentation in the flux and momentum of fishing, the role of «perpetual engagement» (*að vera í stanslausu sambandi*), and the importance of «hunches» (*stuð*), intuition, and tacit knowledge. It may be essential, then, to pay attention to the practical knowledge of skippers, allowing for contingency and extreme fluctuations in the ecosystem. Some form of self-governance in fishing may be a practical necessity, strange as it may sound to those accustomed to the theory of the «tragedy of the commons».

Conclusions

The changes of 1990 marked the full institution of the quota system in the Icelandic cod fisheries – in effect, culminating the process of enclosure and privatisation initiated in 1984. This turn of events would support Kopytoff's thesis (1986) about the inherent drive to «optimum commoditisation». In the beginning, only a few species were subject to quota allocation, but in the coming years other species were gradually added to the system. In addition to quotas becoming more akin to permanent property rights, the privileged right to fish has become fully divisible and transferable – that is, independent of boat ownership. Boats and quotas, in Kopytoff's terminology, now have separate «cultural biographies».

It seems that Icelandic policy makers have introduced the full ITQ system to the fisheries in several stages, to avoid potential confrontation. Privatisation has been conspicuously absent from descriptions presented by the authorities to fishermen and the general public. This has granted quotas the somewhat anomalous status of being the public property of the nation, in name, but, in effect the private property of boat owners. According to one indigenous fisheries economist, such a gradual transition to the full privatisation of marine resources was unavoidable to alleviate opposition based on «traditional values and vested interests rather than rational arguments» (Árnason 1993: 206). The present government, established in April 1995, found it necessary to emphasise in its agenda the need for «preserving» the common property nature of the fisheries and the «national» fishing stocks, in response to growing public discontent.

The main stated objective of the quota system was to make fishing more efficient and economical as well as to control the total annual catch of the most important species (cod, in particular). While the cost side of the economic equation has, perhaps, been reduced (at least for a small group of privileged producers), there has been little success as regards the ecological objective. More importantly, the quota system has instituted a new level of social inequality. During most of the twentieth century the emphasis on equity, informed by the political agenda of the independence movement, obscured real structural differences in wealth and access to resources. In contrast, the current forceful «feudal» rhetoric challenges established rules of access to fishing stocks, emphasising the contested morality of quota exchanges and the alienation and inequalities which they represent.[6] Political debates centre on how to tax away measureable gains. Ironically, however, one of the strong arguments *for* quota systems is that

6 . There are similar rhetorical contests in the history of Western agriculture (see, for instance, Neeson 1993).

apparently they obliterate this kind of rhetoric – the politicking required by traditional «manual» methods of dividing access – by circumventing local debates and everyday discourse, assuming that once the system has been instituted the machinery of the market will take care of «the rest».

Several anthropologists and economists have drawn attention to the neo-classical preconceptions of economic theory which systems of individual transferable quotas represent (McCay and Acheson 1987, Hanna 1990). Macinko (1993) shows how current theoretical discussions on ITQs are rooted in ideological debates. Others have criticised the general attempt to separate economics from politics, ethics, and culture, emphasising the insufficient attention of orthodox economics to empirical realities, its individualistic biases, and its ideological assumptions. Quota systems, I have argued, represent the apex of modernist regimes. Not only are some humans (environmental experts) presented as the managers or stewards of marine resources, positioning themselves as objective spectators outside the realm of predictable nature, parts of the ecosystem are defined as commodities, parcelled out to individual producers, and, finally, marketed among independent transactors supposedly unaffected by the moral perils of exchange.

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