

brought to bear on a remedy are likely to change. So a treaty needs to be flexible; it needs to be able to adapt to changing circumstances.

At the same time, however, being the first step should not be an excuse for falling so far short of potential. Even as a first step, Helsinki could have been better, and so, also, could Oslo have been improved. Montreal was also a first step, but Montreal created a platform on which even greater cooperation could be built. Seeing that this can be done—indeed, seeing that this *should* be done—is a lesson negotiators should learn.

1.10. TREATIES AS INSTRUMENTS OF STRATEGY

Recognition of the need for international enforcement and of the limitations of the Helsinki and Oslo approaches does not imply that international cooperation has to fail. It rather implies that enforcement at the international level needs to take a different approach. Being unable to apply the familiar domestic methods of enforcement, we need to discover another way to skin the cat, so to speak, of international enforcement. That is, we need to find another way to get countries to hand in their red cards. Finding this “other way” is a major aim of this book.

This is an unusual perspective. Negotiation is more often looked upon as a task of finding a formula acceptable to a large enough number of countries; or of agreeing on targets and timetables as was done in Helsinki, or targets and timetables coupled with “flexible mechanisms” as was done in Oslo and, later, Kyoto. But these are not really the most essential tasks. Since treaties must be self-enforcing, they must do more than simply tell countries what to do. Treaties must instead make it in the *interests* of countries to behave as every country would like them to behave. Treaties must somehow get countries to hand in their red cards.

To do this, treaties have to manipulate the incentive structure. They must, for example, make it more attractive for other countries to join when your country joins, and for others to reduce their pollution more when your country pollutes less. The underlying game will rarely make this behavior happen automatically. Successful environmental protection in the horizontal, anarchic international system will usually require a *strategic* manipulation of incentives. Treaties should therefore be seen as instruments of strategy.

Much of this book builds a theory explaining how and why Montreal was able to strategically manipulate incentives, but I can demonstrate both the power and the practicality of the theory even better (and certainly more succinctly) by telling another success story first—the story of how, by means of statecraft and especially international agreement, the northern Pacific fur seal was saved from extinction nearly a century ago. This story is told in the next chapter.

2

The North Pacific Fur Seal Treaty and the Theory of International Cooperation

[The North Pacific Fur Seal Treaty] furnishes an illustration of the feasibility of securing a general international game law for the protection of other mammals of the sea, the preservation of which is of importance to all the nations of the world.
President William Taft, State of the Union Address (1911)¹

2.1. INTRODUCTION

Chapter 1 provided the motivation for the book. This chapter gives a glimpse of the book's essential lessons, as revealed by the telling of a very special story.²

The story concerns the northern fur seal (*Callorhinus ursinus*; see Figure 2.1), an animal that fills a special ecological niche, that has a distinctive morphology, that exhibits a remarkable social behavior—and that was hunted nearly to extinction about a century ago. The fur seal was saved by an ingenious treaty, the North Pacific Fur Seal Treaty of 1911, and this chapter explains how and why this treaty succeeded. As noted before, “success” is impossible to measure precisely. However, the fur seal case study comes as close to offering a counterfactual yardstick for success as we are ever likely to find.

2.2. DISCOVERY

Little is known about the early history of sealing, though Aleuts and other native peoples of the region probably hunted fur seals in the North Pacific and Bering Sea for centuries before Europeans began killing them for profit in the early 1700s, soon after Russia settled its eastern frontier. The seal's luxurious pelt, containing over 350,000 hairs per square inch, was a highly valued commodity, and a commercial market for the skins quickly developed.

At first, the seals were harvested at sea, close to the Siberian coast. But in 1741, the Russian explorer Vitus Bering discovered and was shipwrecked on the Commander Islands, where, by chance, he found one of the seal's main breeding grounds. Though Bering died near to where his ship foundered, on an island later named after him, other members of his expedition survived and returned to Siberia the next year. They

¹ Gay (1987: 129).

² An earlier version of this chapter was given as a keynote address to the conference of the European

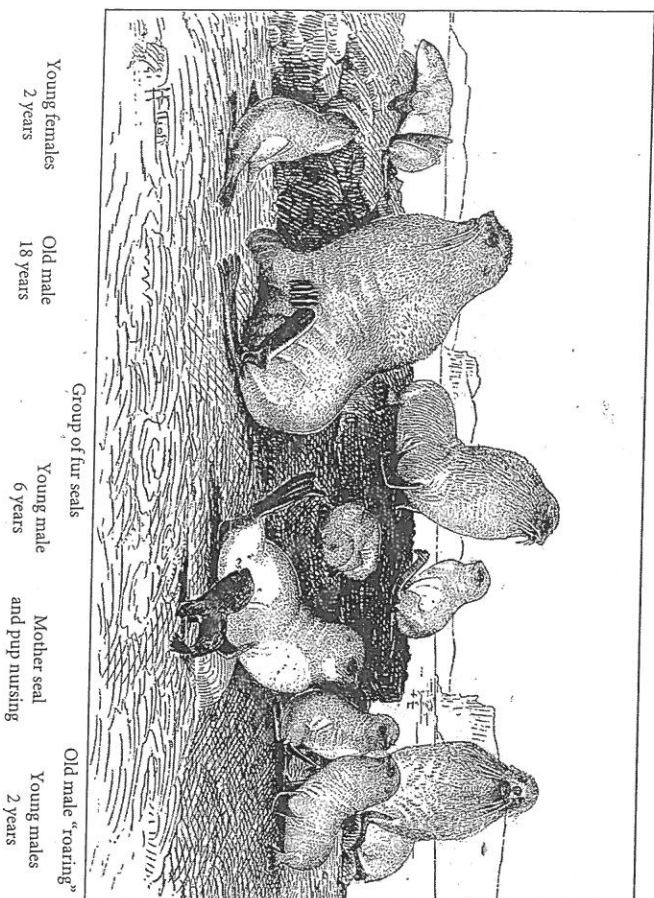


Figure 2.1. North Pacific fur seal (*Callorhinus ursinus*)

Source: Elliot (1887: opposite 258)

arrived bearing a huge cargo of furs. They also told of how plentiful the seals were, and of how easily they could be slaughtered on land.

By this time a great fur trade had developed, financed by wealthy Moscow merchants and the Russian Imperial government. All sorts of furs were taken, not just seal skins. And the traders did more than take the furs they could find; as they depleted the stocks in one area they pushed on, exploring new sources of fur wealth. That quest ultimately led to the discovery of the entire Aleutian chain of islands.

The sea otter's pelt is even warmer than the fur seal's, and so the otter became the fur trade's main prey. The fur traders were too successful, however, and the population of sea otters fell quickly. By 1774 the catch "had dwindled from thousands and tens of thousands at first to hundreds and tens of hundreds at last," and so the fur-gatherers shifted their efforts, "to find new fields of gain when they had exhausted those last uncovered" (Elliot 1887: 191). Their new target was the fur seal.

Huge numbers of fur seals were observed to pass biannually through the Aleutian chain, heading north in the spring and returning south in the fall, indicating that an even larger breeding ground had yet to be discovered, somewhere in the distant sea. Russian ships pursued the herds in the hope of locating their main breeding grounds, but years of exploration turned up nothing. It is hard to imagine today just how hard the challenge was. The waters of the North Pacific and Bering Sea were uncharted,

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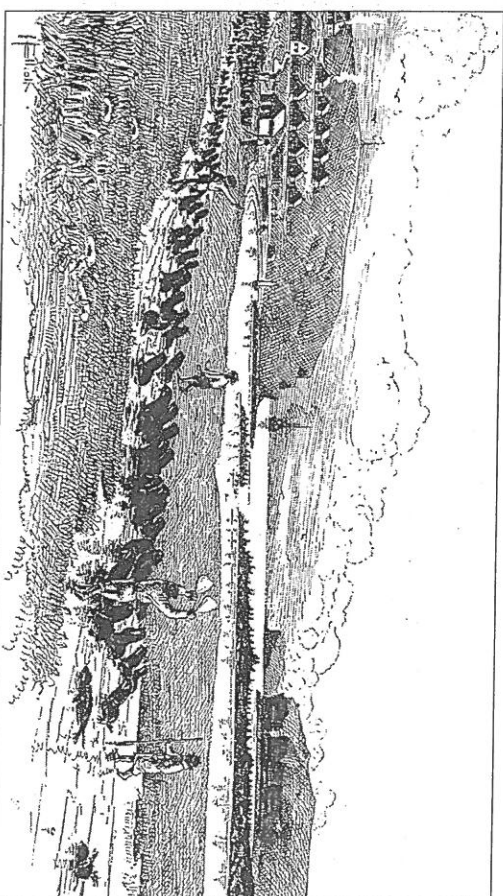
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lure of fur wealth was irresistible, and so the search continued. Finally, in 1786, the main breeding grounds were discovered by a Russian sailor, Gerassim Pribilof—the son, it so happens, of a survivor of Bering's final expedition.

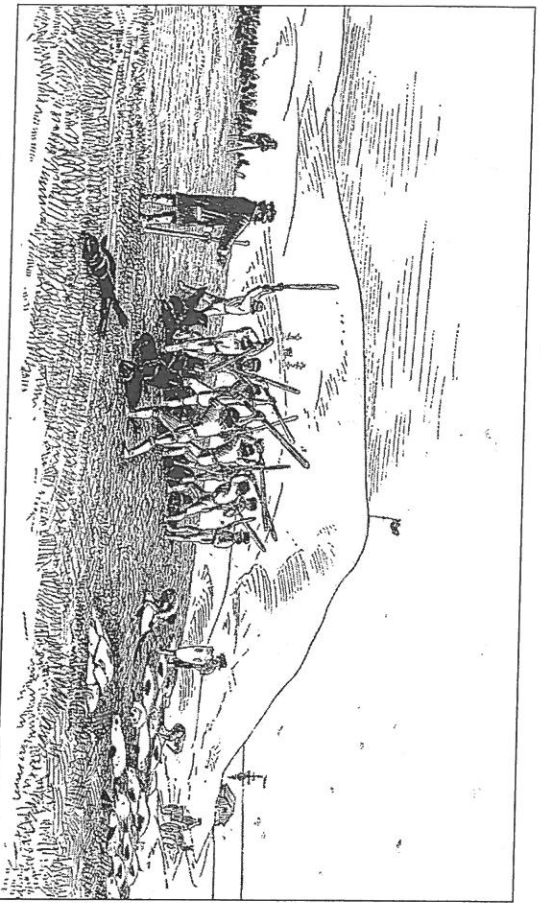
Like many details of history, the nature of Pribilof's discovery is disputed. By one Russian's account (reported in *Fur Seal Arbitration* vol. II, 1895: 23), Pribilof cruised an area of the sea for weeks in a dense fog without success until "fate, as if relenting, yielded to the untiring efforts of an enterprising man and lifted the curtain of fog, revealing the eastern part of the island nearest the Aleutian Archipelago . . ." Elliot (1887: 193), by contrast, tells of how Pribilof's "old sloop" ran aground on the second largest of the islands, "and, though the fog was so thick that he could see scarce the length of his vessel, his ears were regaled by the sweet music of seal-rookeries wafted out to him on the heavy air."

However the discovery was made, Pribilof, whose five-year quest was financed by one of the leading trading companies, claimed the island for Russia and named it after his sloop, the *St George*. Upon returning the next year, Pribilof discovered an even larger island about 30 miles to the northwest (St Paul), and two very small islands in the same general vicinity (Otter and Walrus Islands). The entire chain was named after Pribilof, though they were also known as the Seal Islands.

Pribilof's discovery proved a turning point. Fur seals are an easy target on land. Like their sea lion cousins, the kind that perform tricks at the zoo, fur seals can bend their flippers forwards at the ankle and walk on all fours. This meant that they could be herded like cattle (see Figure 2.2). They were also easy to slaughter; a well-aimed



The drove passing over the lagoon flats to the killing grounds under the village of St Paul. Looking SW over the village cove and the lagoon rookery.



The drove in waiting

Method of slaughtering fur seals on the grounds near the village of St. Paul.
Sealers knocking down a "pod"

Natives skinning

Source: Elliot (1887: opposite 339)

Figure 2.3. *The Slaughter*

blow to the head would suffice (see Figure 2.3). So sealers rushed to the Pribilofs as to a gold rush. Indeed, news of Pribilof's discovery spread so fast that when he returned to St George the year after his first discovery, "a dozen vessels were watching him and trimming in his wake" (Elliot 1887: 193). Within a few years, uncontrolled harvesting had severely depleted the herd, which may have numbered five million at the time of their discovery. The much smaller local population of sea otters was extinguished within two years (Matthiessen 1978).

2.3. DOMESTIC MEASURES

Being the property of the Russian state, access to the seal rookeries could be regulated. A number of interventions would have sufficed to conserve the fur seal, but in 1799 Czar Paul granted a hunting and trading monopoly to the Russian-American Company, of which the czar's own family was the largest shareholder. The Company's license was subject to only two conditions: the seals had to be hunted on land, not at sea, and the harvest had to be restricted to surplus males.³

As shown in Figure 2.1, mature males, or "bulls," are much bigger than females. When they first arrive at the breeding grounds, males can weigh up to 600 pounds,

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six times as much as a mature female. The males need to be big. They have to establish their territories and defend their harems of 20–100 females from rival bulls. And they have to do this for around fifty days without entering the water to feed, during which time they can lose a quarter of their weight. Females mature when three to five years old, whereas males have little chance of breeding until they are at least nine or ten. Immature males are thus "surplus" to the population.

After the Russian-American Company acquired the monopoly, the fur seal population began to recover. Over the next several decades, the company harvested over 2.5 million seals without ever endangering the herd's survival (Gay 1987).

In 1821, the Imperial Government published an edict or ukase claiming a right both to the territories it had conquered and to the neighboring seas. The decree prohibited "all Foreign Vessels, not only to land on the Coasts and Islands belonging to Russia . . . ; but also to approach them within less than a Hundred Italian Miles." Moreover, the ukase declared that ships caught sailing in these waters were "subject to confiscation along with the whole Cargo" (Fur Seal Arbitration vol. II, 1895: 39).

The Governor-General of Siberia later explained to the US Minister in St Petersburg why the government had made the declaration. As the Minister relayed the message to the Secretary of State in a letter in 1822, the intent was to "secure to the Russian American Fur Company the monopoly of the very lucrative profit they carry on" (Fur Seal Arbitration vol. II, 1895: 40). Since the Pribilofs are within 200 miles of the Aleutians, the 100-mile limit would have given Russia, and its sealing monopoly, control of a vast territory.

Like any territorial claim, however, the Russian declaration had to be recognized as being lawful by other nations; otherwise, it would have no effect. As it happens, the claim was denounced by both the United States and Great Britain, and so failed to acquire legal recognition. That Russia should have made the attempt, however, is significant. Russia saw trouble on the horizon. Its territorial claim was intended as a preventative measure. Conflict would eventually come to the seas around the Pribilofs, and when it did, other approaches would be tried to suppress or contain it. As we shall see, most of these would fail too.

The Pribilofs were acquired by the United States under the Alaska Treaty of 1867, and uncontrolled harvesting resumed almost immediately after the handover; around 250,000 seals were taken in the summer of 1868 (see Figure 2.4).⁴ Surprised by the scale of the slaughter, the US government imposed a temporary ban on sealing at the end of the breeding season. In 1870, a permanent arrangement was finally ready to be implemented. Fashioned after the earlier Russian regime, a monopoly was granted to the Alaska Commercial Company. The license was subject to a number of conditions. The annual harvest could not exceed 100,000 seals. Only mature males could be taken. Harvests had to be limited to land. Firearms were prohibited. The Company had further to pay the US Treasury an annual fee of \$55,000, a tax of

³ Under its charter, the company paid no royalties to the government. However, "as its trade consisted chiefly in the exchange of furs for teas on the Chinese frontier, the Government received large sums through the duty collected on such teas" (Fur Seal Arbitration vol. II, 1895: 37).

⁴ The Alaska purchase turned out to be a steal. The United States paid Russia \$7.2 million for the whole of the territory, but the US Treasury netted \$11 million in fur seal revenues alone between 1870 and 1891.

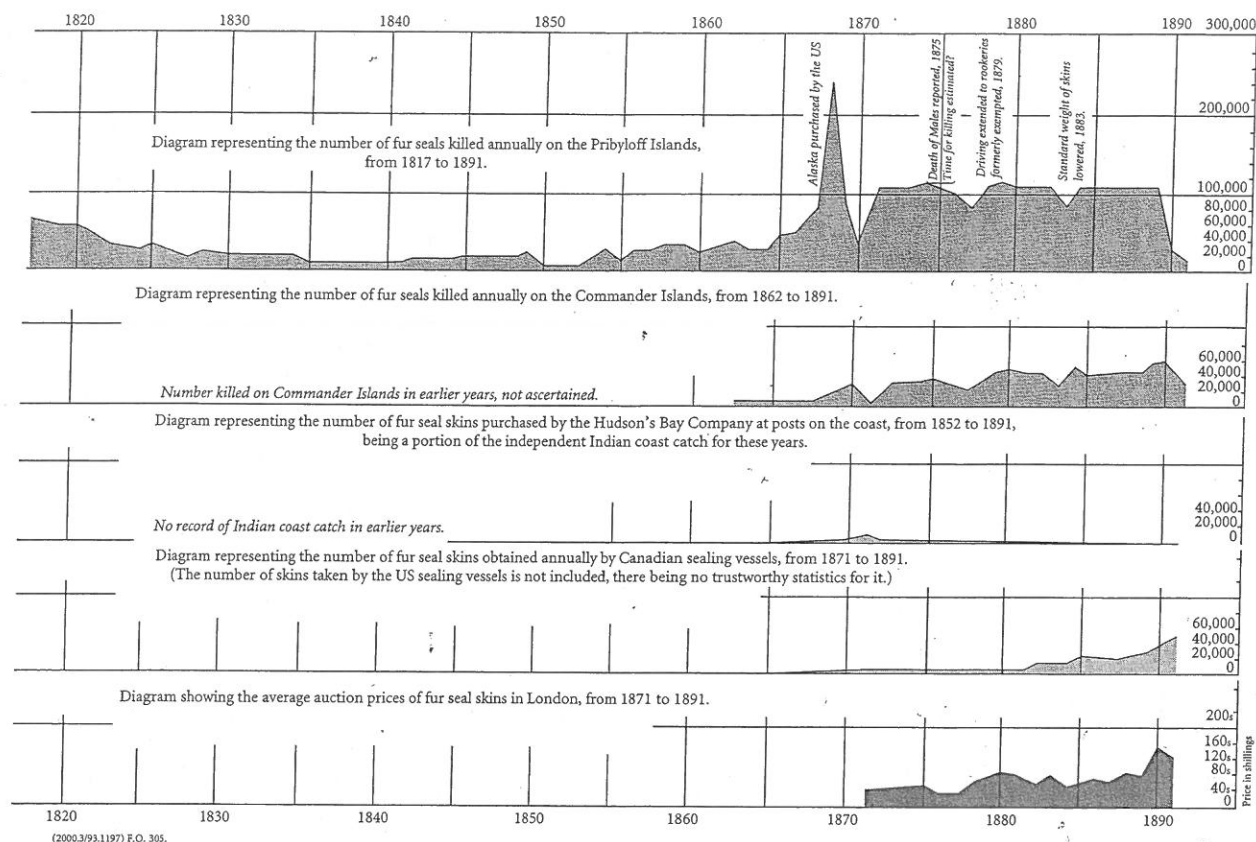


Figure 2.4. Harvest rates and prices

Source: Fur Seal Arbitration (1895), vol. VI, diagram after p. 218

\$2.625 per seal skin, and a charge of \$.55 per gallon of oil.⁵ Finally, the Company had to give the native "inhabitants of the islands of St Paul and St George annually twenty-five thousand dried salmon, sixty cords of firewood, a sufficient quantity of salt and preserved meat; to maintain a school on each island for at least eight months in each year, and not to sell any distilled spirits or spirituous liquors" on the islands.⁶ Though Russia had now lost the fur seal's largest breeding ground, it retained control of smaller herds on the Robben and Commander Islands. Management of these herds was contracted out to the parent of the Alaska Commercial Company in 1871, earning Russia an annual rent of 5000 rubles and a tax of 2 rubles per pelt. As a condition of the monopoly, a supplementary payment of 50 kopecks per skin was also to be paid to the native inhabitants of the islands.

Both of the new arrangements proved as effective as the earlier regime. Over the duration of both twenty-year leases, more than 760,000 seals were killed on the Russian islands and more than 1.9 million on the Pribilofs. The seals on all these islands were never in danger of extinction.

2.4. INTERNATIONAL RIVALRY

Though domestic mismanagement was easily corrected, fur seals are an international resource. Like other pinnipeds, fur seals spend only about half the year at their breeding grounds; in the winter they live in the open sea. Even during the summer months, seals feed in the sea, up to 150 miles from shore and well outside the three-mile territorial limit that existed back then (Figure 2.5 shows the distribution of seals sampled by the *USS Mohican* in the summer of 1892). In these waters, the seals belonged to no one country; they were every nation's property.

Commercial sealing in the open sea—a practice known as pelagic sealing—began in earnest soon after the Alaska purchase (the timing was coincidental). It had a devastating effect. Pelagic sealing was wasteful; for every animal captured, around four or so were killed (see Paterson and Wilen 1977). Some seals escaped wounded, only to die later. Others died too quickly, sinking before they could be hauled on deck. Many were eaten by killer whales. The bigger problem, however, was the huge take of females.

Females give birth to a single pup almost as soon as they reach the rookeries, and within a week of giving birth they mate again. After this time, the females return to the sea to feed. Each feeding trip can take up to a week, and yet the pups need to be nursed for three to four months before being weaned. In the sea, females and immature males look alike (see again Figure 2.1), and in the main killing season, the majority of seals in the water were females; the adult males remained on shore, keeping

⁵ It is not surprising that the Russian Czar would want to contract management of the seal to a monopoly owned by his relatives. But to the Americans, a monopoly also had advantages. In granting a monopoly, the

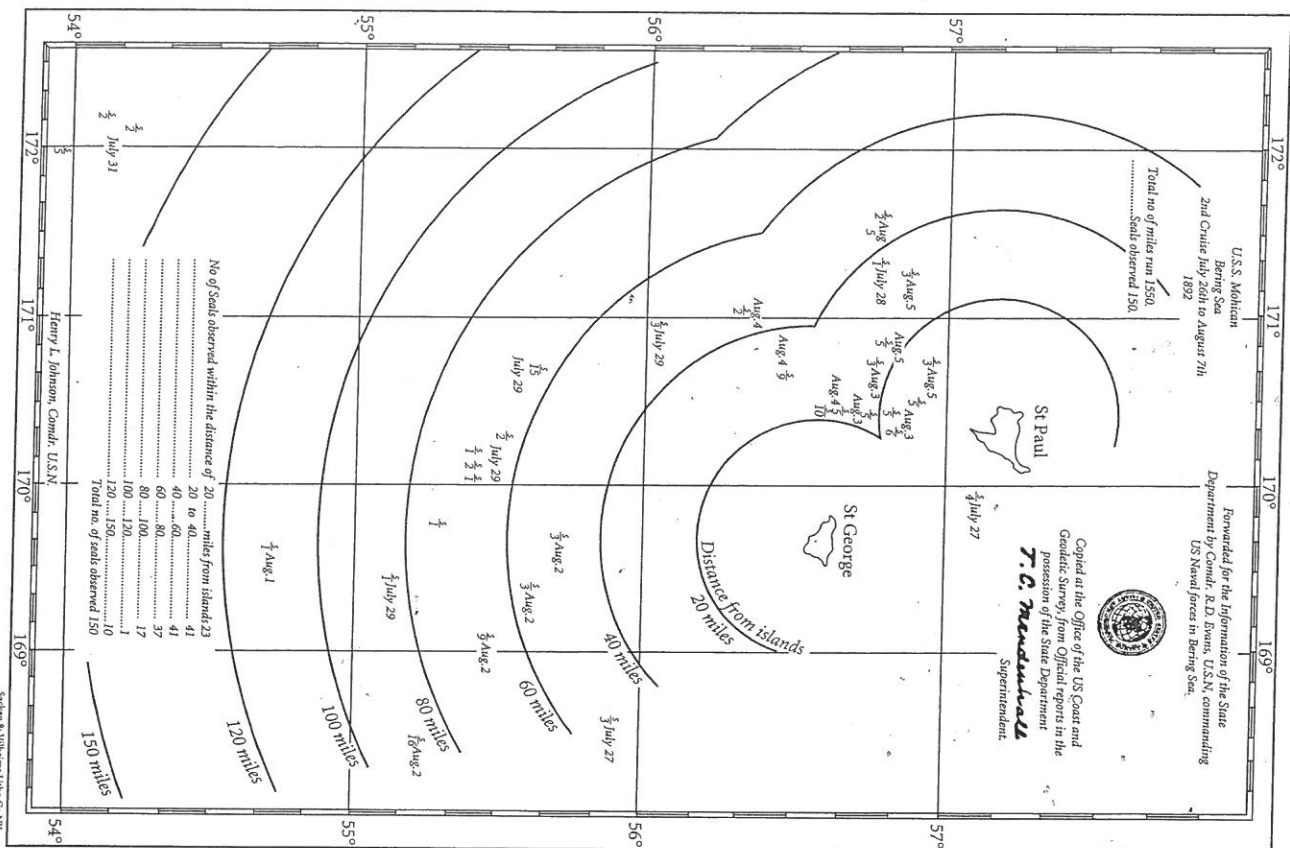


Figure 2.5. Distribution of the fur seal beyond the territorial limit

Source: Fur Seal Arbitration (1895), vol. VII, after p. 405

guard over their harems, and the immature males, needing only to feed themselves, did not have to be in the water as often. At a stroke, the killing of a single mature female would reduce the herd by two animals, since the female's pup would die without its mother's care.

Pelagic sealings, carried out mostly by Canadians at this time, robbed the Alaska Company of profits and stole rents from the US Treasury. The US government was furious and instinctively sought a unilateral solution. On August 1, 1886, US Treasury cutters seized two Canadian schooners working 75 miles from shore. The next day they captured another vessel operating 115 miles from the Pribilofs.

Though all three ships were sailing well outside the three-mile territorial limit, their crews were tried in a US court under the US law—Section 1956 of the Revised Statutes of the United States, which prohibited the killing of fur seals without the permission of the Secretary of the Treasury “within the limits of the Alaska Territory, or in the waters thereof.” The US District Court in Sika found the crews of all three ships guilty, and ordered that their schooners be sold and that their officers be fined and sentenced to a prison term. Great Britain, still representing Canadian diplomatic interests at this time, complained that the seizures were unlawful. The US officials also doubted the legality of the seizures, and in early 1887 the Secretary of State Thomas Bayard recommended to President Cleveland that the Canadian crews and property be released. A few days later the order was given.

The next year, more Canadian-registered schooners returned to the waters around the Seal Islands; a total of fifteen were detained by US cutters. As before, Britain protested at the seizures. This time, however, Secretary of State Bayard invited Britain to negotiate a treaty to ban pelagic sealings, and Britain accepted. Wanting to create a spirit of cooperation, Bayard told the Marquis of Salisbury, who was both Prime Minister and Foreign Secretary, that US revenue cutters had been given secret orders not to interfere with Canadian ships outside the three-mile limit. Pleased by this gesture, Salisbury urged the Canadian government to confine its sealers to port. Canada refused, however, and even insisted that it be compensated for the earlier seizures. Upon hearing Canada's position, the United States broke off the scheduled negotiations. The United States further amended its Revised Statutes in 1889 to provide for the seizure of all vessels found pelagic sealing anywhere “in the waters of the Behing Sea.” Essentially, the United States was now claiming a property right to the Pribilof seals wherever they might be found.

The pelagic hunt resumed in the summer of 1889, and more Canadian vessels were seized by US cutters. Once again, British and American diplomats met to head off a confrontation, and, once again, they failed. The United States insisted that Canada stop pelagic sealings, while Great Britain proposed a temporary cessation, both at sea and on land. A compromise could not be found, and when the 1890 season opened, a violent encounter of some kind seemed inevitable. The US revenue cutters were once again instructed to patrol the region, and four British warships were ordered to meet them. The British order was deliberately leaked to the US officials, however, and the United States quietly withdrew its seizure instructions.

2.5. BILATERAL AGREEMENT

Negotiations resumed in 1891, and the United States and Great Britain agreed to prohibit pelagic sealing temporarily and to limit the land kill to 7500 seals for consumption by the native Indians only. A possible military encounter was thus avoided, but the agreement did nothing to resolve the underlying conflict.

Being unable to agree on a permanent regime for the seals, the parties formally agreed to disagree, and to let the matter be settled by arbitration. Seven arbitrators were appointed; two each from the United States and Great Britain, and one each from France, Italy, and Sweden/Norway. The Tribunal met in Paris in 1892, and, perhaps to signal the importance of the issue to the United States, John Foster resigned as Secretary of State to head the US delegation. In those days, secretaries of state did not travel abroad. This was well before the age of shuttle diplomacy.

The United States argued before the tribunal not only that it had jurisdiction over the Bering Sea, as Russia had proclaimed before, but also that it had a property right to the fur seal. Moreover, the US counsel stressed that having this right was instrumentally important to the protection of the fur seal, not only for the benefit of the United States but for the benefit of all nations. The British counsel disagreed, claiming that the United States only had "the right to kill on the islands exclusively; the right to kill within the territorial limits exclusively; [and] the right to compete on the high seas on terms of equality with all the rest of mankind..." (Gay 1987: 84).

On this crucial point, the tribunal ruled for Britain. Jurisdiction in the Bering Sea, the tribunal reasoned, was restricted "to the reach of a cannon shot from shore," or the usual territorial limit of three miles; outside this limit, the tribunal ruled, the United States had no "right of protection of property in the fur-seals" (Gay 1987: 85-6).

However, under the 1892 Treaty of Arbitration, the tribunal also had to "determine what concurrent Regulations outside the jurisdictional limits of the respective Governments [were] necessary, and over what waters such Regulations should extend..." In ruling on this matter the tribunal showed sympathy for the United States. In particular, it recommended that all harvesting be banned for at least one year, because of the "critical condition" of the herd; that pelagic sealing be prohibited within 60 miles of the Pribilofs; that the prohibition also extend, between May and July, to the Bering Sea and parts of the North Pacific; and that the use of nets, firearms, and explosives be forbidden. Native Indians, the tribunal decided, should be exempt from these regulations, provided they used canoes, were not transported to the sealing grounds by other vessels, and were not employed by others to take seals.⁷

Before going to Paris, both parties agreed that the country ruled to have acted illegally should pay the other compensation. The final ruling thus obligated the United States to pay damages to Britain for the seizure of its vessels. Britain submitted a claim for \$542,169.26, but the United States refused to pay more than \$425,000. To resolve this dispute, the parties once again appealed to an outside party; this time,

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an independent claims commission. In late 1897, the commission ruled that the United States owed Britain \$473,151.26, and soon after the decision was rendered the United States sent Britain the money.

2.6. LEAKAGE ON THE HIGH SEAS

While the arbitration tribunal was in session and the joint British-American sealing ban was in effect, American and Canadian sealers relocated to the waters surrounding the Commander Islands. Russia seized a number of schooners outside its three-mile limit in 1892, and a new crisis loomed. This time, however, diplomacy succeeded. In an 1893 agreement, British (Canadian) sealers were prohibited from hunting within 30 miles of the Commander and Robben Islands and within 10 miles of the Russian continental coast, while Russia agreed to limit its annual land kill to 30,000 seals. A similar agreement was concluded between Russia and the United States the following year.

Laws implementing the Paris regulations were approved by the British Parliament and US Congress before the 1894 hunting season opened. However, the new laws proved hopelessly ineffective, and 55,000 skins were taken from the Pribilofs that year.

The problem was "leakage." After the Paris regulations were implemented, sealers who had been working on the Bering Sea moved to other areas—and not just to the Commander Islands, as happened when the ban was in effect. The Paris regulations only restricted harvests in the vicinity of the Pribilof Islands, and yet the Pribilof seals migrated in the winter months. Some of the seals traveled down the North American coast as far south as Baja, others traveled along the coast of Asia. In suspending sealing in the Bering Sea, the regulations only redirected pelagic sealers to these other waters. Moreover, the Paris regulations only applied to Great Britain and the United States. They failed to prevent entry by third parties or to stop US and Canadian sealers from flying the flag of a third party state in order to avoid the restrictions. Though the Paris regulations were intended to protect the Pribilof seals, they succeeded mainly in shifting the slaughter, not controlling it.

Indeed, the main consequence of all these bilateral arrangements was not to conserve the seal. The main effect was to encourage entry by Japan. Though Japan had its own small breeding population (which became extinct for a time) on the Kurile Islands, it began building a sizable pelagic fleet.

2.7. UNILATERAL FAILURE

By this time it was obvious that a comprehensive agreement was needed, one that included all the four sealing powers. The US Secretary of State Walter Gresham proposed extending the Paris regulations to the whole of the Bering Sea, and Russia and Japan agreed to negotiate on this basis. Great Britain, however, refused. An extension of the Paris regulations would further restrict Canadian access to the Commander Islands and to the sea adjacent to the Japanese coast; Canada could only lose from such a deal.

⁷ A substantial amount of commercial sealine, both at land and at sea, was used in the sealing industry.

was rejected. Upon hearing of the refusal to negotiate, the US ambassador in London, John Hay, complained, "I had always thought of English diplomacy as overbearing and pigheaded, but I never imagined it was tricky and tortuous" (Gay 1987: 103).

To try to bring Britain to the negotiating table, a frustrated US government contemplated a number of unilateral measures. The craziest of these was a threat to exterminate the Pribilof herd if Britain refused to cooperate. Sensibly, the Congress failed to endorse the threat. Were it ever carried out, the US would probably lose more than any country.⁸

Another proposal recommended branding female seals so as to render their skins worthless.⁹ As noted earlier, however, females and immature males were indistinguishable in the water. Branding only females would probably not affect the pelagic hunt. At the same time, branding females and males would render all the skins worthless, and effectively kill the commercial enterprise. This proposal was also shelved.

Perhaps the most imaginative suggestion was to nationalize the Pribilof herd, not by claiming a right to the seals beyond the three-mile limit—that approach had already been tried and shown to be unlawful. The idea this time was to drive the seals to inland lakes, and to keep them there throughout the pelagic hunting season. Since females needed to feed in the sea, however, this plan was also scrapped.

Finally, in 1897, a desperate US government prohibited its own citizens from pelagic sealing and banned foreign imports of seal skins. The hope was that this action would serve as an example for others to follow. Unfortunately, it had no such effect. The pelagic hunt resumed as normal; the Pribilof herd continued to decline.

2.8. DECLINING RENTS

Japanese sealers had already entered the seas surrounding the Pribilofs to take up the slack created by the restrictions on Canadian sealers (imposed by the Paris regulations). The new ban on pelagic sealing by US nationals only encouraged further expansion by Japan, especially in the western Bering Sea. By 1898, Japan had become the dominant pelagic sealing nation in these waters.

As Japan's sealing fleet grew, the profits of Canadian sealers collapsed. In 1897, harvest rates per vessel were less than half their previous levels, and the price of skins also fell as huge inventories were accumulated (Paterson and Wilen 1977). Stocks recovered temporarily in 1898–99, in the wake of the cessation of the American pelagic hunt and the reduced quota allocated to the land kill. But the resulting growth in the herds only attracted vessels back into the business, as well as new entry by Japan, making a subsequent fall in profits inevitable.

By now, Canada could only lose by refusing to negotiate. As the Canadian Prime Minister, Sir Wilfrid Laurier, told a friend in 1899, "if pelagic sealing is allowed to continue for two or three years more, it will then come to an end by the gradual

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destruction of the herds. Then the sealers would be left without any compensation, but with a fleet on their hands, and there would be much discontent in the country against us for having failed to do what we should do now" (Gay 1987: 108).

Just as the United States and Britain came close to an agreement, however, gold was discovered in the Klondike, and a new dispute arose between Canada and the United States—this time over the Alaskan boundary. Britain linked the two issues, refusing to negotiate a fur seal treaty until the United States recognized Canada's boundary claim. This effectively killed the sealing talks. The territorial dispute was not settled until 1903.¹⁰

While diplomacy was stalled, the pelagic hunt continued. The fur seal, however, was now very scarce. To maintain harvest rates, Japanese sealers became more aggressive. They even started to raid foreign rookeries. In 1901–02, nine Japanese poachers were killed by Russian officials on the Commander Islands; in 1906, 5 more were killed and 12 taken prisoner by the United States. Alarmed by these incidents, President Roosevelt reconsidered the strategy of threatening to exterminate the entire Pribilof herd if Japan continued to reject US overtures to negotiate.

Just at this time, however, Japan's interests shifted. As part of the settlement over the Russo-Japanese War, Japan took possession of Robben Island in 1906. Japan now had a sizable herd of its own to protect, and could see the advantage in a four-party treaty. By this time, however, years of excessive harvesting had devastated the herds. In 1867 there were up to two million seals; by 1909 there were less than 150,000. Harvest rates had fallen, too. In peak years, Canada took 50,000 seals from the Bering Sea, and just as many from the Asiatic. In 1909, however, Canada harvested fewer than 4000 seals. There was no more money to be made from pelagic sealing. The Victoria Sealing Company, which controlled the majority of Canadian vessels, even offered to sell its entire fleet of sealing schooners to the United States.

2.9. MULTILATERAL SUCCESS

In 1910, the British Ambassador to Washington, James Bryce, informed the State Department that Canada would suspend pelagic sealing if given sufficient compensation. He suggested that the United States give Canada a share of its land kill or a minimum annual payment if the land kill were suspended. The offer was made, and accepted, and soon formalized in a bilateral pact. Knowing now that a bilateral agreement would make little difference—that a four-party agreement was what was really needed—the bilateral agreement would only come into force after all four sealing nations had agreed to a pelagic ban. Of course, once such a four-party agreement had entered into force, there would be no need for the Anglo-American agreement. This treaty was thus intended only to facilitate the more comprehensive talks.

⁸ The Russians later threatened to exterminate their Commander Islands herd; see Mirovitskaya *et al.* (1993).

⁹ The strategy of branding females is similar to the modern-day attempt to save African rhino from poachers by sawing off their horns.

¹⁰ This is an example of how different issues can become linked in a negotiation. Later, other issues were brought to the negotiating table, including Canada's concerns about US tariffs on lumber and loes, and

Multilateral talks commenced in 1910, and in July 1911 an agreement was ready to be signed. By the end of the year all of the parties had ratified the agreement, and the treaty came into immediate effect. Just as it did so, the British-American treaty was nullified.

The North Pacific Fur Seal Treaty of 1911 was an unqualified success. By 1917, only six years after the treaty entered into force, the Pribilof herd had more than tripled in size. By 1940, the total number of fur seals in the North Pacific once again exceeded two million.

The agreement was also remarkably stable. It survived the Bolshevik revolution, pleas by Canadian sealing interests to break from the treaty (after the seals had once again become abundant), and complaints by Japan that the growing fur seal population was depleting its fish stocks.

In 1940, however, Japan notified the other parties of its intention to withdraw from the agreement, and 12 months to the day after giving its notice, the treaty was nullified. No one seems to know the real reasons for Japan's withdrawal, though the treaty was probably a victim of the growing enmity between the United States and Japan. At the time Japan decided to withdraw from the treaty, war in the Pacific was just over a year away.

Fortunately, the demise of the treaty had little practical effect. During the war, Japan killed only a small number of seals—and these were killed close to its Pacific coast, not in the Bering Sea. The Soviet Union refrained from pelagic sealing entirely, and the United States and Canada entered into a bilateral agreement banning pelagic sealing (Britain was not a party to this treaty as Canada had become independent in 1931).

In 1957, the 1911 treaty was revived in a slightly altered form. This revised treaty was then amended in 1976 and the amended treaty remained in force until 1984, when the US Senate failed to extend its life, despite President Reagan's urging, because of protests by animal welfare activists. By this time, however, commercial interests in sealing had all but disappeared, and there was little need for the treaty. Only about 25,000 seals were harvested each year between 1980–84.¹¹ After failing to ratify the 1984 treaty, the United States banned commercial sealing on the Pribilofs. Only Indians, Aleuts, and Eskimos were allowed to kill fur seals, and they could only do so for subsistence purposes. The history of the fur seal had thus come full circle.

Native Americans still harvest fur seals today, but only in small amounts. In 1999, 1000 were killed on St Paul and 193 on St George (NOAA 2000). Despite the modest harvest, the US population of fur seals has declined. There are just over one million seals today, less than half the number that existed in the 1950s. The exact reasons for the decline are uncertain, though it is widely believed that the fur seal faces a different set of threats today. Many become entangled in plastic debris and discarded fishing gear, and their own food supply (mainly, pollock, herring, capelin, and squid) has been depleted by over-fishing. Because of the population's decline, the fur seal is classified by the US government as a "depleted" species, but it is not in any danger of

extinction. Healthy populations still congregate at the traditional rookeries every breeding season—and new rookeries have even been established on Bogoslov Island in the Aleutians and on San Miguel Island, off the coast of southern California.

2.10. CHANGING THE RULES OF THE GAME

The fur seal case illustrates the important themes of this book: resources that lie entirely within a nation's territorial borders can be effectively managed; shared resources are prone to overuse when countries pursue unilateral policies; an effective treaty can improve on unilateralism and make every party better off.

The case also provides examples of the many forms that statecraft can take: attempts to nationalize the resource, appeals to international law, threats to intervene militarily or to cause harm indirectly (in the fur seal case, by killing off the herd), technical fixes (as in the proposal to brand females), diplomatic interventions, petitions for arbitration, moral leadership (as when the United States prohibited its own citizens from pelagic sealing), the use of trade restrictions, and so on. Statecraft succeeded by one means only, however. It was the four-party agreement that saved the fur seal.

How was it able to do this? The theory developed in this book suggests that the treaty succeeded by changing the rules of the game, by restructuring the relationships among the countries. In particular, five tasks needed to be achieved, each necessary for success, but each also almost useless should any of the others fail. The treaty needed to: (1) create an aggregate gain, a reason for all countries to come to the bargaining table; (2) distribute this gain such that all countries would prefer that the agreement succeed; (3) ensure that each country would lose by not participating, given that all the others agreed to participate; (4) provide incentives for all the parties to comply with the treaty; and (5) deter entry by third parties. The strategies used to achieve these five tasks are explained below.

2.10.1. Creating an Aggregate Gain

Creating an aggregate gain was easy. The treaty only needed to ban pelagic sealing. The ban not only saved on the direct losses from pelagic sealing (recall how wasteful pelagic sealing was in comparison with the land kill), but it also saved on the losses from common property exploitation. In banning sealing at sea, exploitation of the herds could be determined solely by the governments having jurisdiction over the rookeries (Russia, you may recall, controlled the Commander Islands; Japan, Robben Island; and the United States, the Pribilofs). Essentially, the ban transformed the "open access" management regime that existed previously into a "sole owner" regime. A sole owner has every incentive to maximize the rents from the resource (see Scott 1955), and the history of sealing showed that the parties with breeding populations knew how to do this. So the aggregate gain created by the agreement was

¹¹ Alaska Department of Fish and Game's web page <http://www.adfg.state.ak.us/fish/seal.htm>.

2.10.2. Distributing the Aggregate Gain

The ban on pelagic sealing may have maximized the aggregate gain, but it would also have left the pelagic sealing nations worse off. To encourage their participation, Canada and Japan had to be compensated.

The treaty did this by transferring both money and seal skins. Specifically, the United States agreed to pay Great Britain and Japan \$200,000 each, as immediate compensation, to be credited against future side payments in seal skins; to supply each of these countries with 15 percent of its annual harvest or 1000 skins, whichever number was greater; and to pay \$10,000 to each of these parties in any year when no skins were taken, provided the number of seals frequenting the United States islands in that year exceeded 100,000.

Russia and Japan also agreed to share their harvests, subject to certain restrictions meant to protect their breeding populations. Russia agreed to share 15 percent of its annual harvest each with Canada and Japan, while Japan pledged to transfer a 10 percent share of its annual harvest each to the United States, Canada, and Russia.

Canada, of course, did not have a breeding population of its own, but the treaty anticipated that it might acquire one in the future (and recall that two new populations have been established in recent times). In the event that a seal herd subsequently "resorts to any islands or shores of the waters ... subject to the jurisdiction of Great Britain," Britain agreed to transfer 10 percent of the number of seal skins taken in any year to the United States, Japan, and Russia each.

Each country was thus required by the treaty to forfeit 30 percent of its annual harvest of seal skins, provided it had a population to exploit: a bargain that was symmetric, and for that reason, fair.

How were these particular numbers arrived at? Probably many allocations would have sufficed to redistribute the aggregate gain in a fashion acceptable to all the parties. However, we know something about how this particular allocation came to be chosen.

In the Anglo-American agreement that preceded the 1911 treaty, the United States agreed to transfer one-fifth of its annual harvest to Canada, and this served as the initial focal point for the multilateral negotiations.¹² At first, Britain insisted on retaining its 20 percent share; and Japan, naturally, argued that it should get the same quantity as Britain. This was too much for the United States, however, which countered by offering both countries a total of just 25 percent. Great Britain offered to meet the United States halfway, accepting a 15 percent share, but Japan wanted more; it refused to accept less than 17.5 percent. After months of deadlock, President Taft appealed directly to the Emperor of Japan:

Your Majesty. It has been reported to me ... that there is no prospect of reaching an agreement unless both the United States and Japan are willing to make some further concessions to each other. It appears that the United States has proposed to give up a twenty-five per cent gross interest in the American seal herd, which interest Great Britain and Japan would divide equally

Great Britain seems willing to accept fifteen per cent, but the Japanese Delegation refuses to consider less than seventeen and one-half per cent, which we cannot concede I am especially desirous that an agreement should be reached not alone because of the importance of preserving the fur seals but also because of the beneficial effect which a settlement of this question would have upon the friendly relations between the Japanese and American nations; and an agreement in this case will open the way for a general international game law for the protection of other mammals of the sea, the preservation of which is of importance to all the nations of the world. On the other hand a failure to reach an agreement in this case will inevitably result in the extermination of the fur seals (Gay 1987: 127.)

The President says that he could not concede 17.5 percent to Japan, perhaps not least because, with the total concession being divided equally between Great Britain and Japan (and fairness seemed to demand equal treatment in this case), that would mean giving 17.5 percent to Britain, and yet Britain had already said it would accept 15 percent. The letter strongly hints, but does not state explicitly, that the President would be willing to transfer 15 percent of its landings to both parties. Moreover, the 15 percent figure seems the most compelling compromise, being both mid-way between the 12.5 percent share offered by the United States and the 17.5 percent share demanded by Japan (that is, by "the Japanese Delegation," not the Emperor himself) and precisely equal to the British offer—for both reasons the obvious focal point. Having implicitly suggested a 15 percent share, the President is careful not to insist that the Emperor accept this amount; that would surely scupper the negotiations. Instead, he invites the Emperor to be magnanimous. The Emperor's reply came quickly:

Being all times anxious to strengthen the bonds of friendship and good understanding which unite our two countries and people, I am highly gratified to acquaint you that the last instructions to the Japanese delegates to the Conference will enable them to meet the American delegates half-way in adjusting the point at difference between them. (Gay 1987: 128.)

The offer was accepted at once. Three weeks later the treaty was signed by all four nations.

Negotiation is both an art and a science. This book emphasizes the science of negotiation, but President Taft's letter reminds us that there is more to negotiation than this.¹³

2.10.3. Detering Non-participation

The offer to share the harvest ensures that every party is better off with the agreement than without it, but to succeed the treaty needed also to ensure that each country would lose by not participating, given that the other three had agreed to participate.

The history that preceded the four-party negotiation demonstrated that every country's participation was pivotal to the treaty's success. Failure by any of the four countries to participate would likely have spelled ruin for the entire industry. Since every country was sure to do much better with the treaty, each had a strong incentive to participate, given that all the others participated.

¹² For a brilliant discussion of focal points and their importance in negotiation, see Schelling (1960).

¹³ See Raiffa (1982) for an engaging treatment of negotiation as both art and science. The letter by

The treaty recognizes and exploits this situation by requiring ratification by all four countries to enter into force. Implicit in the original treaty is also a kind of "Grim" strategy calling for the complete dissolution of the agreement and, by implication, a reversion to the disastrous open access outcome, should any of its parties withdraw at a later date.¹⁴ In its revised 1957 and 1976 versions, the fur seal treaty makes this threat more explicit. According to Article XII,

Should any Party consider that... any... obligation undertaken by the Parties is not being carried out and notify the other Parties to that effect, all the Parties shall, within three months of the receipt of such notification, meet to consult together on the need for and nature of remedial measures. In the event that such consultation shall not lead to agreement as to the need for and nature of remedial measures, any Party may give written notice to the other Parties of [its] intention to terminate the Convention and... the Convention shall thereupon terminate as to *all* [emphasis added] the Parties nine months from the date of such notice.

The threat to terminate an agreement in the event of a single deviation is severe, and will not normally be credible. Usually, the countries called upon to impose a severe punishment harm themselves too much in the bargain for the threat to be credible. As Shaw (1991: 596), a legal scholar, has noted, "to render treaties revocable because one party has acted contrary to what might very well be only a minor provision in the agreement taken as a whole, would be to place the states participating in a treaty in rather a vulnerable position. There is a need for flexibility as well as certainty in such situations." This is true, of course, and the requirement for consultation suggests that the parties to this agreement recognized the problem. But a withdrawal from the treaty would not be a "minor" deviation, and the nature of sealing meant that the other three parties would probably do at least as well by terminating the agreement as they would by soldiering on with a weakened regime for cooperation. Indeed, the language of Article XII couldn't have been plainer: once one party withdraws, the treaty terminates for every party.

The credibility of the threat to dissolve the treaty in the event of a withdrawal was put to the test when Japan made its stunning announcement:

In the early morning of October 26, 1940, a shocking blow came to the [US] State Department via a telegram from the American Embassy in Tokyo. As of October 23, 1940, the Imperial Government gave twelve months' notice of its intention to abrogate the Fur Seal Convention of 1911. Japanese Minister for Foreign Affairs Yosuke Matsushita indicated Japan's preparedness to conclude a new accord, but the agreement was qualified by several proposals including controlled pelagic sealing and the restriction of the total number of seals in the North Pacific to 850,000. (Gay 1987: 150.)

Immediately upon receiving Japan's notice, the United States considered its response:

Secretary of the Interior, Harold Ickes, in a long note to Secretary of State Cordell Hull, expressed the concern of the Interior Department that the Fur Seal Treaty might be abrogated. Ickes pointed out that since 1911, because of the effectiveness of the Treaty, the fur seal herd had grown from approximately 125,000 to 2,185,136 animals. An abrogation of the Treaty would mean the herd's possible destruction. Ickes urged a conference of the signatories be called immediately

either to dissuade the Japanese from killing the Treaty or to conclude a new agreement which would continue the protection of the fur seals of the North Pacific. (Gay 1987: 150-1.)

The United States offered to renegotiate. It even made the crucial concession of allowing limited pelagic sealing as well as a progressive reduction in the herd. But the counter offer drew no response, and the agreement was terminated on October 22, 1941. Seven weeks later, Japan bombed Pearl Harbor.

Importantly, while the United States offered to renegotiate the terms of the agreement, suggesting that an alternative would have been acceptable to the United States from the beginning, once Japan had refused the offer, its withdrawal did indeed trigger the treaty's collapse. True, the United States and Britain negotiated a bilateral deal after this, but that deal was probably worth making because of special circumstances; war would have made pelagic sealing by Japan nearly impossible.

2.10.4. Detering Non-compliance

Getting all the countries to participate was important, but the agreement also needed to provide incentives for the parties to behave as they promised they would when they ratified the treaty; non-compliance had to be deterred.

Article XII of the 1957 agreement applies to non-compliance with *any* obligation, implying that even small deviations from the agreement would trigger a response, and possibly an overwhelming response. However, enforcement of compliance is also addressed in other ways by the treaty.

Non-participation is easy to observe, but non-compliance need not be. Indeed, one of the main tasks of a treaty is to ensure that non-compliance is observed (or that it can be deduced with a high enough probability). If non-compliance cannot be observed, then it cannot be punished. Effective monitoring is a prerequisite for enforcing compliance.

The treaty made monitoring of the pelagic sealing ban a basic obligation of the states with breeding populations. The United States, Japan, and Russia were each required to "maintain a guard or patrol in the waters frequented by the seal herd in the protection of which it is especially interested, so far as may be necessary for the enforcement..." of the pelagic sealing ban. Monitoring is sometimes a collective action problem of its own, but in this case each of the three countries with breeding populations had strong unilateral incentives to monitor. Recall that the United States patrolled the seas around the Pribilofs long before the treaty was negotiated.

The bigger challenge was to determine a way in which violations, once detected, could be punished. Britain and Canada certainly would not have let the United States punish *their* nationals, should any ever be caught cheating. After all, it was this trespass on Canadian sovereignty that led to the setting up of the Paris arbitration panel in 1892.

Instead, the agreement required that each of the parties "enact and enforce such legislation as may be necessary to make [the pelagic sealing ban] effective with appropriate penalties for violations thereof." Violations of the ban were thus to be

to seize the ship and to deliver it, its crew, and any evidence to the Canadian authorities, who would then be bound by their own domestic law to commit the crew of the impounded vessel to trial should the evidence warrant their arrest and conviction.

Why would Canada comply with the requirement that it pass and enforce such a law? One reason is that failure to do so would violate the treaty, possibly triggering the punishment made explicit in Article XII of the 1957 treaty. But there was also a more positive reason. Pelagic sealing would reduce the quantity of seals available to the land hunt, of which the treaty made Canada a significant beneficiary. As far as I have been able to determine, the agreement was never breached.

2.10.5. Detering Entry

Detering entry by non-parties was perhaps the treaty's greatest challenge. Rents were so low that entry by third parties was unprofitable before the signing of the 1911 agreement. But if the agreement succeeded, fur seals would become more plentiful, and entry by third parties would become profitable. Entry had been a problem before. And it was incredibly easy. When the United States and Canada entered into a bilateral agreement to limit fur seal harvests in 1891, the owners of US- and Canadian-registered sealing ships re-registered their vessels under the flags of other states in order to avoid being bound by the agreement (Birnie and Boyle 1992: 495). This could happen again, and yet international law did not give the four parties authority to seize vessels flying the flags of third party states in the high seas. The treaty thus had to make it in the *interests* of third parties not to want to engage in pelagic sealing.

This was the purpose of Article III, which banned imports of non-authentic sealskins (the skins of seals killed by non-parties). The trade restriction deterred entry because the entire pelagic harvest of sealskins was processed and sold in London (Britain, of course, was a full signatory to the treaty), and London had an advantage that apparently could not be replicated:

First, London furriers maintained the secrecy of the dyeing process which precluded the emergence of other fur markets. In particular, the firm of Messrs. Martin and Company were reputed to be the finest dyers and dressers of fur sealskins and their close corporate connection with C.M. Lamson and Company, the principal auction house, ensured London's continuing dominance. Second, the method of selling furs depended on the buyers having trust in the auction house. Furs were baled into lots which contained a variety of qualities but one size—wigs, middlings and pups were the three main size categories—and then a few representative pelts were drawn from the bale for inspection by the potential buyers. Over time, the main auction houses had gained the confidence of the market. (Paterson and Wilen 1977: 97–8.)

As a Canadian delegate to the 1911 treaty negotiations observed, if seal skins were "... shut out of London, there would be no object in capturing them" (Mirovitskaya *et al.* 1993: 42). According to Gay (1987: 137), the strategy worked; entry was deterred:

During the first decade of the Convention there was some evidence that clandestine sealing might develop. Rumors were rife that non-signatories were preparing to enter the Bering Sea to seal. In general, the threat of commercial sealing in the North Pacific remained largely

rumor. One case of pelagic sealing, however, gained notoriety. In the spring of 1913, Robert Whiteside, a cannery man, was fishing off Vancouver and was forced to club several seals which climbed into his boat. Whiteside's story so impressed customs officials at Vancouver that he was not prosecuted since he had acted in self defense."

As far as I have been able to determine, trade was never actually restricted. This is probably because the threat to restrict trade was credible.

2.11. CONCLUSIONS

The Fur Seal Treaty created the largest possible aggregate surplus, divided this among the parties such that each gained from cooperation, and deterred non-participation, non-compliance, and entry by third parties. It stands as a remarkable example of how international cooperation can succeed by restructuring the game of inter-state relations. Indeed, its success was much celebrated at the time, and its potential as a role model for future agreements was widely recognized, as indicated by the quote that introduced this chapter. Sadly, however, this aspiration was never realized.

History seems determined to repeat this failure today. The Montreal Protocol is widely regarded as a model for success, and yet we seem not to have learned the right lessons from it.

Indeed, the Montreal Protocol is a more remarkable success than the Fur Seal Treaty. Fur seals are an international common property resource, but ozone protection is a global public good. Effective management of a common property resource requires that entry be deterred. For public goods, however, entry cannot be deterred—by definition. To the contrary, success in supplying a global public good requires that treaty participation be encouraged. And yet it is much harder to get 200 or so countries to cooperate than to get a handful to do so. That Montreal was able to do this is perhaps its greatest achievement.

My approach to understanding Montreal will be more rigorous than my analysis of the Fur Seal Treaty. For Montreal, the counterfactuals are less obvious, and important features of the problem more subtle. As well, we want to know what makes Montreal different. So we not only need a theory to interpret Montreal; we need a theory that shows why Montreal is a special case. Even better would be a theory that can show us how to negotiate more effective agreements. So our aim should be to develop a general theory of international cooperation—one that can be applied not just to Montreal but to other agreements, one that is relevant not just to ozone depletion but to other environmental problems. To meet this ambition, it is best to start from first principles. This is the subject of the next chapter.

