Chapter 1
INTRODUCTION

Disputes are nothing new, and neither is the idea of settling them fairly. To provide some historical perspective, let's look at some actual disputes and see how they were resolved, starting with contemporary ones and moving back to the Bible:

- The divorce of millionaire CEO Gary Wendt from his wife, Lorna Wendt;
- The settlement of French actor Yves Montand's estate via DNA testing of his exhumed corpse;
- The division of meat from a kill by African bushmen;
- The parceling out of territory by the Allies after World War II;
- The divvying up of pirates' treasure;
- The division of legislative powers in seventeenth-century England;
- The assessment of taxes, and the fabled division by animals of the returns from a hunt, in ancient Greece;
- King Solomon's proposed division of a disputed baby to establish maternity.

What distinguishes these cases is the use, or suggested use, of a dispute-resolution procedure—often based on some notion of fairness—rather than the arbitrary imposition of a settlement (though there is also some of this). Let's look at what procedures were employed in each of these cases.

FAIR-DIVISION STORIES

A CONTEMPORARY DIVORCE

In 1997, Gary C. Wendt, the chief executive officer of GE Capital Corporation, a profitable General Electric Company subsidiary, divorced his 54-year-old wife of 32 years, Lorna J. Wendt. Before the divorce, Gary's net worth was estimated to be about

$100 million, and Lorna sought a 50-50 split of the assets.

In January 1997, Lorna said, "This is not about need. I can get along on $10 million, but why should he get $90 million?" Indicating that it was not the money but the principle—that she had been a loyal corporate wife who had given up her career as a music teacher to rear the couple's two daughters, create an elegant home, give dinner parties for Gary's clients and co-workers, accompany him on business trips, and provide daily support in innumerable other ways to advance his career—Lorna added: "But I can turn it [Gary's claim to the lion's share] around and say, 'Well, what does he need all that money for?' He's out there working, and I've been fired." In court, Gary responded by saying that he was almost entirely responsible, by dint of his intelligence and hard work, for the creation of the Wendts' assets.

In December 1997, the judge in the divorce case awarded Lorna about $20 million of an estate now valued at $130 million. The explanation was that divorce law in Connecticut calls for equitable, not equal, distribution of the assets, leaving the judge free to consider the length of the marriage, the contributions that each partner had made to it, fault, need, and other circumstances. Customarily, judges in Connecticut mandate a 50-50 split only if the assets are worth less than $10 to $15 million, which was decidedly not true in the Wendt case. Because the judge disdained "judicial overreaching," he followed the usual practice of giving most of the remainder above the $10 to $15 million threshold to the breadwinner, who, as in the Wendt case, is usually the husband.

YVES MONTAND'S ESTATE SKIP

In 1989, a minor French actress, Anne-Gilberte Drossard, filed a paternity suit against the famous French actor, Yves Montand, alleging that he was the father of her child, Aurore Drossard, the result of a liaison she and Montand had had in the mid-1970s while they were working together on a film. Montand steadfastly denied that he was the father, but he died of a heart attack in 1991, at the age of 70, just three days before he was to testify in the trial.

In 1994, the French court ruled that Aurore was in fact Montand's daughter, in part because of a striking physical resemblance. But an appeal by Montand's family that included his two acknowledged children produced an order by the French Court of Appeals in the fall of 1997 to open Montand's tomb for a DNA test. The results of the test would determine not only whether Aurore would be able to share in Montand's estate, now valued at $3.7 million, but also how much of the total estate would be divided among her and Montand's two legitimate children

The reason is that under French law, two children, whether legitimate or illegitimate, together inherit two-thirds of their parents' estate, but three children get three-fourths of it. However, a child born out of wedlock gets only half of the share of a child born in marriage. This stipulation would apply to Aurore, who was born in 1975 at the time of Montand's marriage to Simone Signoret, his wife of 36 years who died in 1985.

If Aurore were indeed Montand's child, she would be entitled to one-fifth of the 75% share of the three children, or 15%, whereas the two legitimate children would each be entitled to two-fifths of the 75% share, or 30% each. Thus, Aurore's entitlement would reduce the two legitimate children's share from 33.3% each to 30%.

In June 1998, the postmortem DNA tests showed that Aurore Drossard was not Yves Montand's daughter, reversing the earlier judgment of the Appeals Court. Even before the results were known, however, Aurore's grandmother, Anne Fleurange, charged that the tests would be inconclusive because the embalming formaldehyde made any analysis impossible.

BUSHMEN IN AFRICA

For thousands of years, hunting and gathering were practiced by all human beings. There is no formal record of how the resulting issues of fair division were handled, but some insights are provided by Elizabeth Marshall Thomas in her book, *The Harmless People* (1959).

In the 1950s, Thomas made several visits to study the Bushmen of southwestern Africa, the last significant population that still lived by hunting and gathering. While providing few details,

Thomas notes that the animals that were killed were "divided at once by a rigid system of rules." Continuing, she says, "It seems very unequal when you watch Bushmen divide a kill, yet it is their system, and in the end no person eats more than any other."

Although some tribesmen who take part in the kill *receive* more meat than others, they voluntarily share it with the others. In the end, Thomas points out, "It is not the amount eaten by any person but the formal ownership of every part that matters to Bushmen."

DIVISION OF TERRITORY AFTER WORLD WAR II

What procedures were employed when Allied leaders divided up territory at the end of World War II? Consider the following account of the deliberations between Winston Churchill and Joseph Stalin:

> As Churchill looked around the table at the opening session of the Tolstoy Conference in the Kremlin, at 10 P.M. on October 9, 1944, he decided the moment seemed "apt for business." "Let us settle our affairs in the Balkans," he began, in a phrase much quoted ever after. Then the prime minister wrote out his proposed arrangement on a sheet of plain paper. Russia should have 90 percent predominance in Rumania, Great Britain 90 percent in Greece. They would share fifty-fifty in Yugoslavia and Hungary, and Russia would have 75 percent predominance in Bulgaria. He pushed the paper across to Marshall Stalin who took a blue pencil, made a large tick upon it, and pushed it back.
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> "After this there was a long silence," recalled Churchill. Finally, the prime minister spoke: "Might it not be thought rather cynical if it seemed we had disposed of these issues, so fateful to millions of people, in such an offhand manner? Let us burn the paper." "No, you keep it," replied Stalin.

The next day the bartering continued between Anthony Eden, the British foreign minister, and V. M. Molotov, the Soviet foreign minister:

> Molotov opened his conversation with Eden by stating that the fifty-fifty ratio proposed for Hungary was unacceptable. The Soviets wanted 75 percent. . . . He argued that Russia must have 90 percent influence . . . [in Bulgaria], as in Rumania. There followed in rapid succession a series of proposals, with Molotov at times offering to trade various percentages in Yugoslavia for near absolute control in Bulgaria and almost the same in Hungary. At one point he attempted to define what these numbers would mean. In Yugoslavia, said the Russian foreign minister, 60/40 meant that Britain would control the coast and Russia the center. Eden eventually agreed to what he thought was a decent compromise—a 20 percent share for Britain in Bulgaria and Hungary, reflected in a two-stage arrangement whereby after the war ended, Russia would allow an Allied control commission to function. For that, Molotov agreed to equal responsibilities in Yugoslavia. In all, the parceling out of the Balkans was at least reminiscent of the treatment of the Ottoman Empire after World War I, except that the stakes were people rather than oil.

It is difficult to find guiding principles behind these momentous decisions. While the divisions agreed to might reflect the interests of the dividers—who do indeed seem to be following some script, if not a procedure, in their exchanges—there is no apparent recognition of what leaders of the countries being carved up might desire.

PIRATES' TREASURE

Before pirates set out on a voyage, they would draw up a code of conduct that everyone was bound to observe, based on the principle "no prey, no pay." Once a ship was plundered, the captain received an agreed-upon amount for the ship plus a proportion of the cargo, which was measured by shares. But before shares were allocated, salaries were paid to the surgeon (200 to 250 pieces of eight) and the carpenter or shipwright, who mended and rigged the ship (100 to 150 pieces of eight). Next, money was given for recompense of injuries: 600 pieces of eight for loss of the right arm; 500 pieces of eight for loss of the left arm or right leg; 400 pieces of eight for loss of the left leg; and 100 pieces of eight for loss of an eye or a finger. After the disbursement of this medical insurance, the remaining loot was divided into shares, with the captain receiving five or six shares, the master's mate two shares, and the rest of the crew one share each. Any

boys in the crew received half a share. It was a strict rule that no person should receive more than his proper due. Indeed, everyone had to take a solemn oath that they would not conceal and steal for themselves anything in a captured ship. There were severe penalties for disobedience.

PROPOSED CONSTITUTIONAL REFORM IN SEVENTEENTH-CENTURY ENGLAND

In the political arena, the English political theorist James Harrington, in a book called *The Commonwealth of Oceana* (1656), suggested a version of divide-and-choose that was intended to be a model for England. Harrington proposed a bicameral legislature in which an aristocratic Senate would, after debate, offer legislation (analogous to proposing a division of the cake), and a plebeian House, without debate, would vote on it (choose to pass it or not). A variation of this system, in which a committee can add and subtract provisions to a bill and a legislature can vote it up or down, is used in the U.S. Congress and many other legislatures today.

TAXATION IN ANCIENT GREECE

The idea of achieving fairness through procedures, as opposed to relying on the judgment of a leader, surfaces in ancient Greece about 600 B.C.E. in reference to a problem that persists today—property taxes. The solution inaugurated by the great Athenian statesman Solon, and used at the tribunals of Athens, was provided by the following procedure: Any citizen who thought that he was paying too high a property tax could exchange his property for that held by anyone who was paying less. While it's not clear how successful this switching possibility was in making tax assessments fair, proposing it today would surely introduce controversy into what might otherwise be a quiet town meeting.

AESOP'S FABLES

A lion, a fox, and an ass participated in a joint hunt. On request, the ass divided the kill into three equal shares and invited the others to choose. Enraged, the lion ate the ass and then

asked the fox to make the division. The fox piled all the kill into one great heap except for one tiny morsel. Delighted at this division, the lion asked, "Who has taught you, my very excellent fellow, the art of division?" The fox replied, "I learnt it from the ass, by witnessing his fate."

A variation on this fable is that several animals find a treasure and must decide how to divide it fairly. The lion speaks up and says, "First, we must carefully divide the treasure into four parts. The first part goes to me, since I am king of the beasts. The second part is mine, owing to my strength. The third part is mine because of my courage. As for the fourth part, anyone who cares to dispute it with me can do so, at his own risk."

One may well applaud the fox for being a good learner in the first fable; in the second fable, one presumes that the other animals exhibited their erudition by remaining silent. While a fair-division procedure is ostensibly used in each of these fables, it is inherently corrupted by the lion's strength and reputation. Obviously, in situations in which there is a clear hierarchy, one is likely to get quick—but terribly unfair—resolutions that give the party at the top the "lion's share."

KING SOLOMON AND THE TWO MOTHERS

In the Hebrew Bible, the issue of fairness comes up frequently. For example, a first-born son is entitled to a double share of his father's estate (Deut. 21:17). While primogeniture is not justified in the Bible, to this day it remains a common custom in many societies.

Fairness issues also surface in some of the best-known biblical narratives. Cain's raging jealousy and eventual murder of Abel is provoked by what he considered unfair treatment by God, who "paid heed" to Abel's offering but ignored Cain's (Gen. 4:4). Jacob, after doing seven years of service in return for Laban's beautiful daughter, Rachel, was told that his sacrifice was not sufficient and that he had instead to marry Laban's older and plainer daughter, Leah, unless he did seven more years of service, which he regarded as not only the breaking of a contract but also blatantly unfair.

Fairness triumphed, however, when King Solomon proposed to divide a baby, claimed by two mothers, in two. When the true mother protested and offered the baby to the other mother, whose baby had died, the truth about the baby's maternity became apparent, and "all Israel . . . stood in awe of the king; for they saw that he possessed divine wisdom to execute justice" (1 Kings 3:28).

Solomon's proposed solution, however, is not really a procedure for fair division, because Solomon had no intention of dividing the baby in two. Instead, his purpose was more devious—to try to distinguish the true mother from the impostor.

The means used to settle disputes in all these cases are, in varying degree, *ad hoc*; certainly they are not well justified in terms of a method designed to produce certain ends. This is not to say that they are not practicable, and even acceptable, to the participants. Thus, for example, the pirates seem to have carefully thought out what each crew member, after a ship was plundered, was entitled to receive.

Similarly with Solomon: The situation he set up between the two mothers enabled him to interpret the strategies they chose, after announcing his own decision, as evidence of who was telling the truth and who was lying. In effect, he designed the rules in order to distinguish, based on the mothers' responses (protest or don't protest), truthfulness from mendacity.

Unfortunately, the pirates' and Solomon's rules of division relate only to their specific situations. How to generalize such rules to other situations is not evident. By contrast, our goal is to develop impartial rule-based procedures that provide a sturdier basis for making fair decisions than do the judgments of individuals (even a King Solomon!) or the judgments of collectivities like the pirates.

When a procedure is *perceived* to be fair because it satisfies certain criteria of fairness, it is more likely to lead to outcomes that are viewed as legitimate by all the parties. These outcomes will be more durable because, when seen as the product of a fair process, they are less likely to incite disaffected parties to try to derail them.

THE SETTING

Not every dispute will be suited to the procedures we discuss. Let's be more specific about the nature and kinds of disputes for which these procedures work.

TWO-PARTY DISPUTES

Two-party disputes are our focus; they are important for two reasons. First, many of the most intractable conflicts today, including divorces and labor-management disputes, inherently involve two parties. Still other conflicts, such as international disputes, often involve two coalitions whose members have shared interests and coordinate their actions. For all practical purposes, the coalitions can be considered two parties.

The second reason for concentrating on two-party disputes is more practical. When there are three or more parties with distinct interests, the coalitional possibilities and cleavages increase rapidly, making a possible settlement not only more complicated but also less amenable to a procedural solution. Nevertheless, some of the most significant disputes in the world involve more than two parties, so we also discuss multiparty extensions of all the procedures.

GOODS AND ISSUES

The distinction between *goods*, such as the physical objects that must be divided among the heirs to an estate, and *issues*, which are matters on which there are opposing positions, such as the protectionist and free-trade positions in a trade dispute, is often blurry. Of course, many disputes, like divorce, involve both goods and issues.

What will be important in our later analysis is whether goods or issues, which we will refer to simply as *items*, are *divisible*—can they realistically be split or shared without losing their value?