Introduction

The efforts of men are utilized in two different ways: they are directed to the production or transformation of economic goods, or else to the appropriation of goods produced by others.

[Vilfredo Pareto]

In racing for a prize, there are two main ways to win: running faster yourself, or tripping up your opponent. Or suppose you are engaged in a cooperative enterprise with others, possibly within a business firm. Again there are a range of options: you can concentrate on becoming more productive on behalf of the firm as a whole, or else upon grabbing a bigger share for yourself. In the realm of politics, Mary Lease, an agrarian rabble-rouser of the 1890s, put it this way: "Kansas farmers should raise less corn and raise more hell."

Correspondingly, there are two main methods of making a living. The first aims at producing useful goods and services for exchange with other producers. Alternatively, you might try to appropriate a larger slice of whatever is being produced. Think of these as *the way of production and exchange* versus *the way of predation and conflict*. Each way of making a living has an associated technology: there is the familiar *technology of production*, but also a *technology of struggle*. There is one set of techniques for tilling the land, and quite a different set of techniques for capturing land and defending it against intruders.

The way of conflict does not necessarily involve violence. Among the usually nonviolent forms of contests are strikes and lockouts (industrial conflict) and lawsuits (legal conflict). Then there are back-biting maneuvers for advancement on the promotion ladder, and family squabbles ranging from the trivial to the deadly serious. In the world of business a firm might find ways of sabotaging competing enterprises without actually assassinating their executives. Nevertheless, although not all struggles involve violence, warfare serves as a convenient metaphor for strife and contention generally.

The way of production and exchange enlarges the social total of wealth. *The way of predation and conflict* merely redistributes that total (less whatever is dissipated in the struggle). In a world requiring defense against aggressors, even decisionmakers otherwise inclined to be pacific have to balance on the margin between these two strategies. And in fact all choices take place in the shadow of conflict. What a nation can achieve by diplomacy depends largely upon what would happen in the event of war. Deciding whether to plant a crop or build a factory will be influenced by ability to protect your investment against invasions, by enemies foreign or domestic. (Including the efforts of adversaries operating under color of law, such as tax collectors and class-action attorneys.)

Corresponding to the two strategies for making a living there are, in principle, two main branches of economics. Traditional economics has been almost exclusively devoted to one of these branches, the way of production and exchange. But the way of conflict and predation is equally "economic." It responds to the omnipresent fact of scarcity, there is scope for rational choice on the level of the decision-making agent, and decentralized choices interact to bring about a societal equilibrium. Mainline economics has not totally ignored conflictual activities: topics such as crime, litigation, labor-management struggles, rent-seeking contests, redistributive politics, and so forth have received a certain amount of attention. But these investigations have not been woven into the central fabric of economic thought. It is as if international trade, industrial organization, public finance, labor economics, and all the other traditional subdivisions of economic theory had developed as separate fields with no recognition of their common foundation in the microeconomics of production and exchange. A failing of exactly this type has occurred here. The first aim of conflict analysis in economics is therefore to provide an underlying theory of struggle that will be applicable to all the specific topical areas such as warfare, litigation, strikes and lockouts, crime, power politics, and family quarrels. Ultimately, a unified economic theory should allow for *both* of the two main forms of social interaction: on the one hand exchange and contract, and on the other hand struggle and contention.

Here are some illustrative questions – some obvious, some perhaps less so – upon which the articles reprinted here shed light:

1. What governs the intensity of struggle and the associated wastage of resources? When do contenders such as individuals, tribes,

and nations "fight" (literally in the case of warfare, or metaphorically in contexts like political campaigns and litigation) rather than come to an agreed settlement? Do interpersonal sympathy, greater wealth, improved productive opportunities, and increased economic interdependence conduce to peaceful settlement? What happens as conflict technology becomes more destructive? When the contestants are more equally matched, does conflict become more likely?

2. Who wins, and by how much? As determinants of conflictual outcomes, how important are disparities of wealth endowments, comparative advantages in production versus combat, differences in time-preferences or in risk-aversion, and so forth? For example, other things being equal, does conflict tend to improve the position of the initially better endowed side? That is, will the rich become richer and the poor poorer?
3. Is conflict usually or always a mistake on the part of one side or the other, so that better information will tend to promote peaceful settlement?
4. What are threats and promises? Why should they ever be believed? When are they likely to be effective? Conversely, when is "appeasement" likely to work?

Although I have complained about the relative lack of attention to conflictual competition, this volume is not the first to have addressed the topic. For one thing, just about every important social scientist has had something valuable to say about the contest for wealth and advantage. Adam Smith's *The Wealth of Nations* (1776) has dozens of references to war and perhaps hundreds to political quarrels, exploitative taxation, and the like. But Smith and other classic authors never pushed toward systematic analysis of the way of conflict. By the time of Alfred Marshall the central tendency of economic thought had narrowed drastically. War does not even appear in the index of Marshall's *Principles of Economics* (1920). In contrast, standing apart from the central tradition, Karl Marx in *Das Kapital* (1867) placed struggle – the class struggle in particular – at the center of human social activity. However incoherent his effort may have been from a scientific standpoint, Marx at least perceived the analytic gap that modern conflict theory has attempted to fill.

A few pioneering volumes have led the way. Schelling (1960) addressed topics such as threats and deterrence, especially with regard to national strategic policy. Boulding (1962) is wider-ranging, emphasizing the problem of *viability*: the circumstances in which a party to conflict can guarantee its own survival against opposed force. Tullock (1974) was perhaps the first to employ standard analytic building blocks such as preference functions and opportunity sets for dealing with conflict interactions. Of these volumes only Schelling's is at all well known and still in print. More recent monographs, once again hardly well known, include Bernholz (1985), dealing with power balances in international systems, and Usher (1992), who studied the viability of forms of government from despotism to liberal democracy.

Individual journal articles are of course far too numerous to cite extensively here. Two early contributions stand out, however. Bush and Mayer (1974) described a "natural equilibrium" generated by decision makers' competing predatory efforts ("stealing" from one another). Skogh and Stuart (1982) is more fully developed and was apparently the first to model both offense and defense in contesting for income. More recent years have seen a modest boom in analytic treatments of conflict interactions, warranting publication of several valuable edited collections of journal articles, among them Isard and Anderton (1992), Hartley and Sandler (1995), and Garfinkel and Skaperdas (1996). These contributions have addressed a wide range of topics, including – to name but a few – the sources of between-group and within-group conflicts, the conditions leading to compromise and settlement, the technology of warfare and other forms of struggle, the consequences of balances and imbalances of power, and the formation of coalitions and alliances.

This extremely condensed review of the literature undoubtedly displays parochial professional bias. Political scientists also, at least in recent years, have been generating analytic models of warfare and contests for power. (Some such studies are cited in the chapters in this volume.) And a few relevant writings in sociology are analytical in a way that economists would recognize. Even closer to economics – though this fact is largely unknown on both sides – is the work of evolutionary biologists and anthropologists on topics such as predator–prey interactions, contests for territory and dominance, and the power gradient within hierarchical social groups. I will only cite one truly remarkable early contribution, Robert H. MacArthur's *Geographical Ecology* (1972) (especially Chapter 2, "The Machinery of Competition and Predation"). That study developed, among other things, an evolutionary general-equilibrium model of contentious competition (for example, between predators and prey).

I will mention here several continuing themes:

1. Conflict theory shares with exchange theory the central analytic paradigms of *optimization* on the individual level of analysis and societal *equilibrium* on the aggregate level. Features like preference functions, competition, increasing and decreasing returns, and so forth play comparable roles in both branches of economic theorizing.
2. The key difference is that the social interactions dealt with in exchange theory are a source of *mutual* advantage, whereas in conflict theory any advantage gained by one party must come at the expense of its rival or rivals.
3. Any settlement or compromise arrived at, and even the process of exchange itself, takes place in the shadow of the potential conflict lurking in the background.
4. Human society, although of course unique in many ways, nevertheless exists within bounds established by Nature, which, through the evolutionary process, has fashioned important aspects of our morphology, biochemistry, and psychology and behavioral inclinations as well.

Many of these themes are illustrated in the opening essay, one that bears the same title as the book as a whole: "The Dark Side of the Force" (my 1993 Presidential Address to the Western Economic Association). The articles grouped in Part One fall under the general heading *Causes, Consequences, and Conduct of Conflict*. The selections in Part Two, under the heading *Evolutionary Approaches to Conflict and its Resolution*, show how modern evolutionary theory bears upon topics such as the development of law and social ethics and the viability of reciprocity strategies. Finally, the concluding article, "The Expanding Domain of Economics," addresses the imperial pretensions of economics to constitute a universal social science.

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1

The Dark Side of the Force

Western Economic Association International 1993 Presidential Address

*Jack Hirshleifer**

Background of this Chapter

The force referred to here is the pressure of self-interest. But can self-interest have a dark side? Isn't it dark all over? No, there is a bright side as well as a dark side. As Adam Smith famously explained, self-interest often impels a person to serve others. An employee can prosper by being a productive worker, a businessperson by selling desirable products at reasonable prices. Yet sometimes one can succeed – materially, though certainly not morally – by attacking competitors, stealing from one's employer, or defrauding one's customers. Mainline economics has been so concerned to convey the important though partial truth about the possible beneficence of self-interest as to almost forget there is still the dark side.

This 1993 Presidential Address to the Western Economic Association was an attempt to restore the analytic balance: to convince economists that not only the sunny side but also the dark side of self-interest contribute to shaping individual behavior and the forms of human societies. The article was published in *Economic Inquiry*, the flagship journal of the Western Economic Association.

. . . [T]he age of chivalry is gone. That of sophisters, economists, and calculators, has succeeded: and the glory of Europe is extinguished for ever.[1]

Edmund Burke wrote that accusation against our profession back in the year 1790. Yet, 200 years later, it seems we economists and sophisters have still not managed to extirpate chivalry and generosity. In an

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[1] Quoted in James [1984, p. 63].

article in the current issue of the *Journal of Economic Perspectives*[2] that received extensive journalistic coverage,[3] the authors reviewed the notorious evidence that people perversely persist in contributing to charities and public goods. And violating the self-interest postulate again, in Prisoners' Dilemma experiments most subjects choose COOPERATE rather than DEFECT. However, one walk of life stands out as an embarrassing exception. Who is it who turn out to be almost as selfish as economic theory makes out? The answer: only economists and their students! Thus, like Socrates, we economists are convicted not only of untruth but of corrupting the young.

Nevertheless, I am among those who remain skeptical about the significance of self-reported contributions to charity, or about behavior in hypothetical or small-stakes Prisoners' Dilemma experiments. My guess is that economists are not more selfish, but only more *acceptant* of human selfishness as a fact of life.

There's an updated proverb from Ecclesiastes:

> The race is not always to the swift, or the battle to the strong – but that's the way to bet.

Similarly, unselfishness certainly exists, but don't bet on it.

With regard to the power of love and chivalry as organizing principles of social life, as usual Adam Smith said it best:

> In civilized society [man] stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons.[4]

Love and friendship may sustain cooperation among a few partners, but the elaborate division of labor essential for modern life has to rely on the force of self-interest. Pushing this point to an extreme, Hayek has contended that only when people *learned* to be selfish, learned to overcome their innate instincts toward communal sharing, did it become possible to make the transition from primitive society to free civilized life. Adapting his words slightly:

> These habits [of generosity] had to be shed ... to make the transition to the ... open society possible. ... [The] mores [of the market economy] involve withholding from the known needy neighbours what they might require, in order to serve the unknown needs of thousands of unknown others.[5]

[2] Frank, Gilovich, and Regan [1993].
[3] See *The Economist*, 29 May 1993, p. 71.
[4] Smith [1937 (1776), p. 14]. See the excellent discussion of Smith's views on this topic in Coase [1976].
[5] Hayek [1979, Epilogue].

So, Hayek would claim, economists aren't corrupting the young by teaching them selfishness – we're civilizing them!

But my point today is different. I want to argue that our profession has on the whole taken not too harsh but rather too benign a view of the human enterprise. Recognizing the force of self-interest, the mainline Marshallian tradition has nevertheless almost entirely overlooked what I will call *the dark side of the force* – to wit: crime, war, and politics. That's like telling the story of Luke Skywalker and Obe Wan Ben Kenobe without mentioning Darth Vader.

"Crime," "war," "politics" – the words do not even appear in the index to Marshall's *Principles of Economics*.[6] Or take the characteristically flat and prosaic way Marshall defines economics on p. 1 of the *Principles*:

> . . . ECONOMICS is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being.

So, for Marshall, economics is bean-counting. Boring, boring, boring. The title page of the *Principles* carries the famous epigraph: "*Natura non facit saltum*" – Nature doesn't make leaps. What Marshall really meant was: "No excitement please, we're English here."[7]

By way of contrast, consider Vilfredo Pareto:

> The efforts of men are utilized in two different ways: they are directed to the production or transformation of economic goods, or else to the appropriation of goods produced by others.[8]

The rhetoric isn't too thrilling, I admit; perhaps something was lost in the translation. But the thought is more vigorous. Pareto is saying, sure, you can produce goods for the purpose of mutually beneficial exchange with other parties – OK, that's Marshall's "ordinary business." But there's another way to get rich: you can grab goods that someone else has produced. *Appropriating, grabbing, confiscating* what you want – and, on the flip side, *defending, protecting, sequestering* what you already have – that's economic activity too.

Take television. Cops chase robbers, victims are stalked by hitmen (or should I say hitpersons?), posses cut off rustlers at the pass, plaintiffs sue

6 Marshall [1920].
7 I hasten to add that Marshall's personal concerns went beyond this straightjacket definition. From many asides in the *Principles* and elsewhere, we know that his interests extended to questions like non-pecuniary motivations and the molding of human character. But, evidently, he regarded such matters as outside the scope of scientific economics.
8 Quoted in James [1984, p. 160].

defendants, exorcists cast spells against vampires. What is all this but *muscular economics*? Robbers, rustlers, hitpersons, litigants – they're all trying to make a living. Even vampires are making economic choices: sucking blood is presumably the cost-effective way of meeting their unusual nutritional needs.

The balance between these modes of economic activity – the one leading to greater aggregate wealth, and the other to conflict over who gets the wealth – provides the main story line of human history. Following my teacher Joseph Schumpeter I remind you that Karl Marx, though a flop as an economist, did appreciate the importance of the dark side, the conflict option. But Marx's vision was distorted by his preconceived idea that all kinds of conflict, including wars among nations and even the battle of the sexes, could be squeezed into the ill-fitting mold of the class struggle:

> The history of all . . . society is the history of class struggles.[9]

This one-dimensional outlook led him to what in principle he deplored, fatuous utopianism, in fantasizing that moderation of the class struggle would bring on universal peace:

> In proportion as the antagonism between classes within the nation vanishes, the hostility of one nation to another will come to an end.[10]

Marx had this totally wrong: the truth is the reverse. That in-group amity rises and falls in proportion to external menace, and vice versa, is a practically universal truth.[11]

Niccolo Machiavelli saw matters more clearly:

> It is not gold, but good soldiers that insure success . . . for it is impossible that good soldiers should not be able to procure gold.[12]

This is Machiavelli's version of the golden rule: *he who gets to rule, will get the gold*.

Human history is a record of the tension between the way of Niccolo Machiavelli and what might be called the way of Ronald Coase. According to Coase's Theorem, people will never pass up an opportunity to cooperate by means of mutually advantageous exchange. What might be called Machiavelli's Theorem says that no one will ever pass up an

[9] Quoted in Bartlett [1968, p. 686].
[10] Quoted in Bartlett [1968, p. 687].
[11] An excellent discussion appears in Ardrey [1966, Ch. 8].
[12] Quoted by Gilbert [1941, p. 15].