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The Review of Austrian Economics

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Dedication

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***The* Review of Austrian Economics**

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Articles

Eighteen Problematic Propositions in the Analysis of the Growth of Government

Robert Higgs*

Economists, public choice analysts, political scientists, and other scholars, especially during the past 10 to 15 years, have made many studies of the growth of government. As the literature has grown, a number of conventions have become established with respect to concepts, measures, assumptions and modes of analysis. Certain contributions have been viewed as paradigmatic and hence have served as models for subsequent contributors. No analytical consensus has emerged. Indeed, one can perceive the outlines of several competing “schools”— a Chicago school, a Washington school (see Proposition 16), a mainstream economics school, a libertarian school, several distinct positions within the public choice community of scholars, and others.

Despite the diversity of approaches and conclusions, much of the work has been premised, implicitly if not explicitly, on the acceptance of propositions that are questionable at best. In what follows, I shall state these propositions and criticize them. Although I shall provide citations and examples of scholars who have advanced or accepted the flawed propositions, my aim is not to compile a catalog of sinners. The examples are intended only to provide concrete illustrations of how various analysts have proceeded and to demonstrate that I am not quarreling with phantoms.

The discussion that follows pertains mainly to the growth of government as it has occurred in the countries of Western Europe and their overseas offshoots during the past two centuries, especially

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during the twentieth century. I have specific expertise with regard to only one case, the United States, so much of my discussion relates especially to that case. This restriction of the frame of reference does little harm, because the ideas I shall criticize have themselves been employed in the same empirical domain for the most part. Further, as will become obvious, I believe that attempts to achieve universally applicable explanations of the growth of government are doomed to fail in any event. I disavow at the start any pretension of contributing to the construction of a single all-encompassing theory.

Proposition 1

Government activities can be reduced to a single variable (the "size" of government), which can be accurately measured.

Modern governments undertake many distinct activities. They take money away from people by taxation and fines; they deliver the mail; they operate law courts where citizens resolve various disputes and tennis courts where people work on their backhands; they conduct medical research; and so forth in nearly endless variety. To sum up the various activities, one must measure each of them in a common unit—persons on the government payroll, for example, or dollars spent by the government. These methods of achieving commensurability seem to make sense until one inquires a bit deeper.

Suppose that, *ceteris paribus*, the government has added a billion dollars to its spending for operating the law courts and cut a billion dollars from its spending for farm subsidies. Has the government grown? If the changes had been reversed, would the government have grown? The answers are far from obvious. Government (as a set of activities) is what government (as a group of people) does, but because governments do so many diverse things, no common unit of account can scale the underlying reality satisfactorily.

Often government employees or dollars work at cross purposes in their impact on the economy. Many analysts have noted the prodigious "cross hauling" or "churning" associated with modern government activities (Becker 1983, p. 389; 1985, p. 341; Musgrave 1985, p. 305). On the one hand, government wheat researchers develop higher yielding varieties of the crop, thereby increasing the supply and decreasing the price. On the other hand, government acreage restrictions decrease the supply and increase the price. Such examples can be multiplied indefinitely. I do not mean to suggest that the churning is accidental or politically irrational in its inception, because interested parties set each part of the process in motion with their eyes open and their hands grasping. The implication for muddled measurement remains, however, regardless of the motives involved.

In view of the heterogeneity, incommensurability, and offsetting impacts of many government activities, the information content of any one-dimensional measure of "the" size of government verges on nil (Peters and Heisler 1983, pp. 178-81, 186; Rose 1983, p. 7). Much more informative would be an answer to the question: *What in particular* is government doing more frequently or less frequently? Most analysts of the growth of government simply ignore this problem.

Proposition 2

The best measure of the size of government is relative government spending, the ratio of government spending to the gross national product. Good alternative measures include relative tax revenues (the ratio of tax revenues to GNP) and relative government employment (the ratio of government employees to labor force).

Many analysts forgo entirely an attempt to justify measuring the size of government as the ratio of government spending to GNP. (Often GDP and occasionally NNP or National Income serve as the denominator.) They just plunge ahead (Lowery and Berry 1983, pp. 666-67; Mueller 1987, p. 115), noting, if anything, that "everybody does it." But choices still must be made. Should the analyst include all government spending, including transfer payments, or only the government's "exhaustive" spending for newly produced final goods and services, which is a component of GNP as conventionally defined? Both measures are used. Frequently, however, as in the United States during the past 40 years, the two measures behave quite differently—in this case the all-spending ratio tends to rise more or less steadily while the "exhaustive" measure remains more or less level (U.S. Council of Economic Advisers 1989, pp. 78, 397, 402). Regardless of the exact measure selected, using relative government spending to measure the size of government gives rise to many curiosities.

Consider some cases. (1) Suppose the cereal makers produce and sell more corn flakes, but nothing else changes. Implication: government has shrunk. (2) Suppose people from the Defense Department sit down with people from General Dynamics and agree to pay more per unit for this year's purchase of (the same number of) F-16s, but nothing else changes. Implication: government has grown. (3) Suppose the government switches, as it did in 1973, from a military conscription system to a volunteer military force, which will entail payment of higher salaries to military personnel, but nothing else changes. Very strange implication: government has grown. (4) Suppose that local governments across the country stop operating and

spending money for sewerage plants, mandating instead that every home or business releasing sewage into the system ensure that the effluent meets strict treatment standards, with all costs to be borne by the private sewage generators, but nothing else happens. Implication: government has shrunk. Such examples can be produced virtually without limit. Nor are the examples merely contrived. Arbitrary or counterintuitive determinants of changes in the government's relative spending are part and parcel of this measure of the size of government.

Similar observations, and many others, might be made with respect to using relative tax revenues as an index of the size of government. Whenever an index is a ratio with GNP as its denominator, all sorts of oddities may arise. In the workaday world of government fiscal reports, the repeated shuffling of various taxes, especially some or all of the Social Security tax, between on-budget and off-budget status further confuses the historical record (U.S. Office of Management and Budget 1989, p. 6).

Michael Boskin (1987, p. 60, emphasis added) recently concluded that, for various reasons, "the accounting problems are so fundamental and pervasive that federal budget figures can not be used to compile an accurate representation of our *fiscal* history." (See also the strictures of Stiglitz [1989, p. 68] on the misleading way the national accounts treat government enterprises.) *A fortiori*, these figures cannot serve as a reliable basis for measuring the overall size of government in all its significant economic dimensions.

How, for instance, should one take into account the various activities of government in the credit markets? Governments now make many types of loans on their own accounts, insure private loans, subsidize or grant tax breaks on the extension of certain loans, and insure—sometimes far beyond the explicit promise—deposits in banks and savings institutions. Joseph Stiglitz (1989, p. 63) notes that "in the US today, approximately a quarter of all lending (to the private sector) is either through a government agency or with government guarantees. . . . The magnitudes of the implicit subsidies and costs—both the total value, and who receives how much—are hidden."

Relative government employment also is a fragile index of the size of government, partly because governments hire millions of "contractors" (Hanrahan 1983). These workers are classified as members of the private labor force, even though they work exclusively on projects set in motion by governments and receive compensation entirely, if often indirectly, from government revenues. Why are they considered any more "private" than regular government employees? Only be-

Some analysts believe that it is better to smooth the data or even to omit certain deviant years from consideration (Meltzer and Richard 1983). These analysts view the unruly observations as unlikely stochastic deviations from a smoothly changing central tendency; they prefer that their statistical analysis not be contaminated by “outliers” (and maybe that their coefficients of determination not be diminished). I shall criticize the theoretical foundation of these views when I discuss Proposition 7 below. For now it suffices to observe that the crises of history, when government expanded abruptly, were real. People did not forget them. Indeed, people were deeply affected by such experiences and later behaved differently as a result.

Proposition 5

Government can be analyzed as something having an abstract “functional” relation to the economy; it is unnecessary to consider government officials as autonomous decision makers having genuine discretion and making real choices.

The approach implied by this proposition frequently appears as what I call the Modernization Hypothesis, which maintains that a modern, urban-industrial, technologically advanced economy simply must have a big, active government. Modern socio-economic affairs are so complex. How could they possibly take place successfully without the guiding, regulating, coordinating hand of government? “The increased complexities and interrelationships of modern life,” said Calvin Hoover (1959, p. 373), “necessitate this extension of the power of the state.” Supreme Court Justice William Brennan echoed this view in a 1985 speech. “The modern activist state,” he declared, “is a concomitant of the complexity of modern society; it is inevitably with us” (quoted by Kozinski n.d., p. 6).

One doubt arises immediately. Why is government so much bigger in some countries than in other, equally modernized countries (say, Sweden vis-à-vis Switzerland)? But this is not the most fundamental problem.

Anyone who has understood the message of Adam Smith, not to speak of the more penetrating and pertinent contributions of Ludwig von Mises and Friedrich Hayek, immediately doubts the Modernization Hypothesis. Indeed it seems backwards, for whereas government might be able to coordinate a simple pre-modern economy, it certainly could not coordinate successfully a complex modern economy. The now undeniable failure of all the centrally planned economies, confirming the early insights of Mises and Hayek, clearly supports the Austrian position on this question.

But my point is different; it has to do with methodological indi-

vidualism. Even if it were true that a modern economy “requires” bigger government for its effective coordination, the Modernization Hypothesis would be virtually worthless as an explanation of the growth of government. The fatal flaw is the absence of a human actor. Just because a course of action is “necessary” in some systemic sense for the successful operation of an economy does not ensure that anyone has a personal incentive to work toward fulfilling the requirement. In the Modernization Hypothesis the process is magical: the economy “needs” bigger government—POOF!—the government grows. But who did what to make it happen? And why did these actors find it in their interest to take such actions? To these questions, the Modernization Hypothesis, like every other “functional necessity” explanation, has no answer.

Functional necessity explanations implicitly view government officials as robots who lack genuine discretion and make no real choices, automatons programmed to accomplish whatever is necessary to optimally serve the known, unambiguous “public interest.” This view is mystical and obscurantist; it is also patently, empirically wrong. (For more general observations on methodological individualism and “the false organismic analogies of scientism,” see Rothbard [1979, pp. 15-17, 57-61] and sources cited there.)

Proposition 6

Government can be analyzed as if it were a single decision maker; it is unnecessary to consider conflicts of interest within government or migration back and forth between the ruling group and the ruled group.

The difficulties of formal modeling and the analytical attractions of simplicity have enticed many analysts to embrace this proposition. (An outstanding example is Auster and Silver [1979].) Of course, in ordinary discourse and in newspaper columns, we frequently encounter statements that “the government” did something or “the government” decided such and such, without any specification of which government officials in particular took the action. Sometimes such usage is a harmless abbreviation. But more is at stake when analysts adopt such a conception.

Even so astute a scholar as Douglass C. North (1981, pp. 20-32) built his “neoclassical theory of the state” on the assumption of “a state with a single ruler . . . a wealth- or utility-maximizing ruler” (p. 23) who can act in a way that his subjects cannot because, as a single person, “he has no free rider problem” (p. 32). However useful this conception may be in understanding a medieval lord of the manor or the court of Louis XIV, it has virtually no applicability to the govern-

ments of the western world whose growth during the last two centuries concerns us here.

Modern governments consist of thousands of important decision makers, not to mention the millions of minions who have at least a bit of discretion in carrying out delegated activities. In the United States today, for example, there are more than 80,000 separate governments, more than 60,000 with the power to tax (Higgs 1987a, p. 6). Moreover, people are constantly passing back and forth between the ruling group and the ruled group. The "revolving door" is notorious at the Department of Defense, but a similar phenomenon occurs at many other places in the government. In many instances, one would be warranted in regarding certain persons formally outside the government as more a part of it than most of those formally inside it—just think of the exogovernmental potency of such figures as Walter Lippmann, Felix Frankfurter, John J. McCloy, David Rockefeller, and Henry Kissinger, to name only a few notables among many. (For a plethora of contemporary examples, see Dye [1990].) In any event, no one person, no small group, calls the shots for the whole hydra-headed creature that is "the state." People within the ruling circles, though they may share at least one goal (retaining their own powers and privileges) constantly engage in internecine struggles. Supposing that the government operates as if it were a single decision maker cannot take us far toward a realistic understanding of modern government or its growth.

Proposition 7

There exists a structure of politico-economic behavioral relations (an "underlying model") whose workings generate the growth of government as a dynamic equilibrium outcome; and this structure does not change over time.

Whether they think about it or not, analysts who test their theories of the growth of government by fitting a linear regression model to the time-series data for a certain period are accepting this proposition. Econometric theory admits of no exception if the estimated coefficients are to have the meaning they are supposed to have. Thus, if the theory contains the equation

$$(1) \quad G = \alpha + \beta X + u$$

and, using linear regression techniques, one estimates the parameters α and β from time-series data for the years 1901-1989 as a and b , respectively, then one is assuming, *inter alia*, that the politico-economic world was working such that whenever X took the value x' , then G as a result took the value $a + b(x')$, plus or minus a purely

random amount u' , and this result was the case regardless of whether X took the value x' in 1901, in 1989, or in any other year during the time period to which the model is fitted. That is, the underlying model is assumed to be invariant as specified by equation (1). The econometric estimation is designed only to ascertain the numerical values of the parameters, not to test or otherwise call into question the functional specification of the model. The specification is presumed to be given to the investigator by his theory independent of any empirical observation—in effect, by divine revelation, though the source may well be one of the lesser deities.

Suppose that G denotes total government spending and X denotes total personal income as defined in the standard national income accounts. Suppose further that the estimated value of β turns out to be $b = 0.3$. The interpretation would be that every additional dollar of personal income gave rise to an additional 30 cents of government spending, *no matter when* during the period that extra dollar came into people's possession: the identical quantitative linkage existed for income changes occurring between 1901 and 1902, between 1988 and 1989, indeed between *any* two years in the test period, whether the pairs be 1933-1934, 1945-1946, or any other. The dates just don't matter—by assumption.

Is the assumption plausible? No. The world of 1901 differed in many pertinent ways from the world of 1989. Among other differences, people at the two dates had quite different ideas about what they wanted the government to do. In the United States in 1901 many people still thought in terms of a variant of classical liberal ideology. They wanted not much more than a night-watchman state, and they already had more than that (Higgs 1983; 1987a, pp. 77-105; 1989c, pp. 92-98). In 1989, in contrast, most Americans had relatively inflated ideas about the range of social and economic "problems" they wanted the government to "solve" (Smith 1987; Higgs 1989c, pp. 101-03). Even if the ideology had not changed—and historians may reasonably differ about precisely how and when it did shift—socio-economic and political conditions certainly had changed enormously. In 1901, a majority of the population still lived in rural areas and 43 percent of the labor force worked in farming, fishing, and mining. In 1989, less than a quarter of the population lived in rural areas (many of them with easy access to a city) and less than 4 percent of the labor force worked in farming, fishing, and mining. These differences in socio-economic conditions are but two of the many that starkly distinguish the people of 1901 from those of 1989. Wouldn't it be strange if people so differently situated, even without subscribing to different views concerning the desirable scope of government, should just

happen to get 30 cents of additional government spending every time their personal incomes rose by a dollar? Very strange indeed. If such constancy were found to have been the case, wouldn't the analyst be on firmer ground to interpret it as a coincidence, a parametric peculiarity, rather than the manifestation of a politico-economic law? After all, the meaning of 30 cents of additional government spending—the precise collection of goods and services associated with it—was dramatically different in 1901 and 1989.

Further, given that people's behavior depends on their ideas and that people learn from their experiences, it is extremely unlikely that an aggregative "behavioral" relation between a more or less inaccurate index of government activity and any of the usual "explanatory" variables would have remained invariant over nearly a century of tumultuous experience—wars, depressions, deflations, labor upheavals, inflations, energy crises, environmental panics, and so forth (contra Becker [1985, p. 332], who postulates a similar sort of constancy, and Peltzman [1985], who claims to have confirmed a related political stability econometrically). Can we really believe that none of these great events budged people's commitment to, or acquiescence in, spending 30 cents out of every additional dollar of personal income on government? Even regarding much shorter periods, similar doubts may be raised. Can anyone really believe, for example, that the structure of politico-economic behavioral relations did not change in the United States between 1929 and 1933?

We might well take seriously the conclusion reached by Assar Lindbeck (1985, pp. 325-26): "there is no compelling reason to model a process of an expansion of public spending [or the growth of government in other dimensions] as a series of static equilibria positions at different values of a set of exogenous variables, or even as a dynamic sequence of equilibria." We are dealing with "a disequilibrium process, the *speed* of which is determined by characteristics of political competition."

A final caveat, noted by Johan Myhrman (1985, p. 279), pertains to the example itself: "we have to avoid the temptation that many have fallen for and that is to conclude that rising income is the *cause* of the growth of government." Temporal association, no matter how close, does not establish a causal relation in any event.

Proposition 8

Which particular persons compose or influence the government doesn't matter. Only broad socio-economic changes and the relative strengths of interest groups need be considered.

In analyzing the operation of the market system, economists are accustomed to ignoring the personal identities of the actors; and usually they are justified in doing so. We can probably understand the demand for and supply of potatoes well enough without naming consumer Jones as a demander and farmer Smith as a supplier. In markets with many small demanders and suppliers, no one in particular has any perceptible influence over the prevailing price or the volume of sales. So nothing is gained by worrying about specific people.

When economic methodology has been carried over to the analysis of political, governmental, and legal matters, the nameless quality of the analysis also has been carried over. Hence, public choice scholars speak of voters, legislators, bureaucrats, and others only as anonymous members of categories of actors. The theory is supposed to apply regardless of which particular person occupies a theoretical category. The theory is supposed to be—indeed one of its imagined glories is that it is—general in the sense of abstract. (Like physics, you see: no one cares *which* uranium atom we work with.) For some analytical purposes, this approach may serve satisfactorily, but it has limits well short of its pretensions.

One fact that should give pause to the analysts is that the political actors themselves certainly seem to have acted as if particular personalities mattered to them. Legions of Roosevelt haters seethed with animosity toward “that man”—he is said to have agitated them so mightily that they could not stand even the sound of his name! Would they have hated any other democratic president as much and acted the same if, say Al Smith had been elected in 1932? Not likely. Smith himself served as an officer of the leading Roosevelt-haters’ group, the Liberty League (Leuchtenburg 1963, p. 92). Would nothing have changed had someone other than Woodrow Wilson been president during and immediately after World War I? Would the events of the 1980s have unfolded without essential difference if, say, Howard Baker had been president instead of Ronald Reagan? In the mid-1930s, when the Supreme Court was more or less evenly divided between those eager to affirm and those eager to deny the constitutionality of major New Deal programs, did nothing of substance depend on the personal character of Justice Owen J. Roberts, the famous “swing man”?

If merely raising these questions does not indicate obvious answers to them, then it must at least create serious doubts about political explanations devoid of personalities. To most historians, the significance of particular persons in determining the course of political history seems manifest. Politics is not, in this regard, like

economics. (Maybe economics [in reality] is not always like economics [in the models] either.) In politics one person can make a difference—not that very many can or do, but the potential exists when the right person and the right occasion conjoin. To understand the growth of government, which is obviously the outcome of a political process, we may need to attend to the roles played by particular actors at critical junctures.

Proposition 9

In studying the growth of government, econometric analysis is superior to historical analysis.

The idea that econometrics trumps history seems quite warranted if one accepts Proposition 7 (invariant structural model) and Proposition 8 (personalities are irrelevant). I have already criticized those propositions, but additional objections may be raised.

One problem has to do with the distinction between the creation of a new government power and its exercise, say, by means of government spending or employment. In the United States, authorization must precede the appropriation of public funds. Often certain political events prompt the creation of new authority, but a long time may pass before much money is spent under that authority.

Consider, for example, the Social Security system created in 1935. Clearly the program reflected the unique configuration of socio-economic and political conditions in the mid-1930s (Weaver 1983). For the next 20 years it remained a minor element in federal spending; as late as 1955, only \$4.3 billion was spent for Social Security (OASI) transfers to the aged and to eligible survivors (U.S. Office of Management and Budget 1989, p. 189). It is estimated that in 1990 these types of transfers will reach about \$218 billion, thereby accounting for a large share of the increase in federal spending over the past 35 years—a period when OASI payments grew from about 6 percent to about 16 percent of all federal spending (U.S. Office of Management and Budget 1989, p. 232; note that these data do not include other Social Security transfers, authorized later, such as disability payments or Medicare).

Of course, the increase in OASI transfers during 1955-1990 reflects the unfolding of political events during those years, as members of Congress catered to a segment of the electorate by expanding the scope of eligibility and increasing the allowable amount of payment per eligible recipient. But one who tracks the yearly pulling and hauling of events that resulted in changing amounts of aggregate spending, as the econometrician does in an abstract way, is attending to only one aspect of the growth of government, and it is a consequen-

tial or derivative rather than a fundamental aspect. The increase in Social Security transfers during each year of the 1960s, for example, resulted not simply from the playing out of the politics of the 1960s. It was also a lagged effect of the events and political actions of the 1930s. The increased OASI payments in the 1960s could not have occurred without a Social Security system in place, and that system owed its existence to much earlier events and actions. As Richard Rose (1984, p. 21) has remarked, the growth of government taxing and spending "is not so much a function of new laws as it is a consequence of the continuance of old laws."

An even more compelling example is the veterans' program. As recently described by Julie Johnson (*New York Times*, December 13, 1987),

The V.A. serves 27 million veterans and 53 million dependents and survivors, more than a third of the population. It is the largest independent agency in the Federal bureaucracy, with an annual budget of \$27 billion and more than 240,000 employees. It operates one of the largest health care systems in the world, and the number of patients it treats is expected to skyrocket as more World War II veterans age; it administers one of the largest home loan guarantee programs in the Federal Government, having guaranteed some \$263 billion in mortgage loans since 1944; and it has helped 18 million veterans go to college or get job training.

Here is a welfare state in itself. Again, one can ascertain that spending for the veterans' programs grew in connection with an ongoing political process during the past 45 years. But no one can really understand how this gargantuan complex of government activities emerged unless one understands how the G.I. Bill of 1944 gained enactment: 12 million people, most of them draftees, were serving in the armed forces, and an election was coming up (Ross 1969; Higgs 1987a, p. 229). Once the institutional apparatus of the VA had been established, its vast potential to serve as a single-agency welfare state had only to be exploited at the margin as events and political conditions permitted. To use an analogy from cosmology, none of this evolution could have occurred without the original Big Bang.

Econometric models of the growth of government typically relate the explicandum to contemporaneous events alone or to events a year or two earlier. Such models are ill suited to capture the distinction between what is essential or fundamental (creation of new powers expanding the scope of government action) and what is consequential or derivative (increased government spending within an unchanged scope of government powers). As a rule, the econometrician "falsely

assumes that the causes of government growth represent current choice rather than the inertia force of established commitments" (Rose 1983, p. 6). In modern democratic political systems, it is much easier to start a program than to terminate one; just keeping programs from growing, far from killing them, requires political courage and commitment of a sort rarely evinced.

Other problems arise because, by admitting only one aspect of reality (the quantifiable), econometric models of the growth of government, in effect, throw away information. Because no number can measure a politician's personality and its political import, the econometrician has no way to appreciate the difference in the potential for the growth of government between, say, a government headed by Franklin Roosevelt and a government (that might have been) headed by Herbert Hoover in 1933. Except as the measured variables allow, the econometrician cannot appreciate any difference between, say, 1929 and 1933. A year is a year is a year; a variable is a variable is a variable; and real people with all their quirks and fickleness don't exist at all. This quantitative homogenization squeezes all the life, blots all the color, freezes all the feeling out of human history in general and political strife in particular.

By characterizing only abstract aggregative variables linked by rigid functional relations, an econometric model of the growth of government implicitly affirms that people had *no real choice*. They could not have done otherwise but to act in accordance with fixed formulas; the only deviations allowed are stochastic, as if those who deviate from the formulaic central tendency are lunatics acting randomly. This way of representing human history is not just a simplification; it is a basic distortion, a denial of the very thing the Austrians call human action (Mises 1957; 1966; 1978; Rothbard 1979; Buchanan 1979, pp. 39-63).

Proposition 10

The process generating the growth of government is internal to each country; each one's relations with the rest of the world can be ignored.

Virtually all existing economic models of the growth of government are models of a behaviorally closed economy, that is, an economy operating and developing independently vis-à-vis the rest of the world. Of course, external events may indirectly enter the explanatory framework. For example, the gross national product may increase because net exports increase, and the rise in GNP may be assumed to increase the public's demand for government services. But in this model an identical effect would have resulted from an

increase in GNP occasioned by a rise in domestic spending; there is nothing distinctive about external demand as such.

"Rigorous" analysts usually ignore genuinely external causes of the growth of government in part because their models exclude any role for changes in economic or political ideas, which are readily "imported" and "exported." So, analysts of the twentieth-century growth of government in the United States suppose that the same politico-economic structure persisted throughout the past 90 years even though, roughly speaking, (a) traditional balanced-budget fiscal doctrines held sway for the first half of the period but Keynesian macroeconomic theory and chronic-deficit politics prevailed during the second half, (b) traditional "isolationist" doctrines had great influence on foreign policy during the first half of the period but virtually no influence during the second half, and (c) peacetime defense spending usually amounted to about 1 percent or less of GNP during the first half but more than 7 percent of GNP during the second half (Higgs 1988b, pp. 18-22).

Increased defense spending by itself accounts for over 35 percent (4.4 percentage points) of the increase in federal spending relative to GNP (12.4 percentage points) between fiscal year 1940 and 1988 (U.S. Office of Management and Budget 1989, pp. 46, 51). Can anyone seriously contend that this increase had nothing to do with external military and political events and hence with the ideas Americans held about international communism and the threats they came to believe it posed for their well-being after World War II? Readily available facts refute such a supposition (Higgs 1988b, pp. 11-19).

Readily available facts also attest to the power of ideas imported from abroad in various other realms of thought. Information about social and economic developments in the European welfare states, for example, has heavily influenced the political thinking and practices of Americans ever since the late nineteenth century with regard to income taxation, central banking, nationalized retirement and health insurance, public housing, and countless other matters. Keynes's ideas alone had an immense influence on macroeconomic policy in the quarter-century after World War II, an influence that is still alive today (Stein 1969; 1984; Buchanan and Wagner 1977), not to mention Keynes's and other British influences in establishing postwar institutions for the international financial system, including the International Monetary Fund and the World Bank. From the late nineteenth to the late twentieth century, western European thinking exerted a magnetic attraction pulling American thinking toward collectivism. To ignore this powerful external influence on the course of events is

to abstract from an essential aspect of the process whereby government grew in the United States.

Proposition 11

Putative "public demand," especially as expressed by voting, drives the political-governmental system. Elected officials (and hence the bureaucracy subordinate to them) may be viewed as perfect agents of the electorate.

Adherence to this proposition characterizes the bulk of all analysis dealing with the growth of government in the West, regardless of analytical tradition or ideological leaning. (Specific citations seem unnecessary. See virtually any issue of *Public Choice* as well as the widely cited articles by Meltzer and Richard [1978; 1981; 1983], Peltzman [1980; 1984; 1985], Becker [1983; 1985], and Borchering [1977; 1985]. The most recent and most extreme contribution along these lines is Wittman [1989].) This approach displays a professional deformity related to the economist's basic tool of analysis, the theory of markets with its component theories of demand and supply. Applying their familiar tools to the analysis of politics, economists immediately look for analogues. What is the "good" being traded? Who is the "supplier" and who the "demander"? What is the "price"? The answers seem obvious. Public policy is the good; the elected legislators are the suppliers; the voters are the demanders; votes are the currency in terms of which political business is being transacted. Thus voters "buy" the desired policies by spending their votes; the legislators "sell" policies in exchange for the votes electing them to office. (See Benson and Engen [1988] for an especially straightforward application of such analogues.) Economists view consumer demand in ordinary markets as ultimately decisive for the allocation of resources; hence consumer "sovereignty," a political metaphor imported into economics. Applying their familiar apparatus of thought to politics, economists tend to think that ultimately the political system gives the voters what they want. Therefore, if government grows, it does so because that is what the people want (Musgrave 1985, p. 306; Stiglitz 1989, p. 69). Demand creates its own supply. Voting is ultimately all that matters for determining the growth of government. As Dennis Mueller (1987, p. 142) has observed, "In the public choice literature the state often appears as simply a voting rule that transforms individual preferences into political outcomes."

It is easy—and probably healthy—to mock this view of the political process. Joseph Schumpeter (1954, p. 429) called it "the perfect example of a nursery tale." There are, after all, many significant

differences between ordinary markets and the "political market" (Higgs 1987a, pp. 14-15). Even Benson and Engen (1988, pp. 733, 741), adherents of this model, describe their output variable as "somewhat artificial and very restrictive" and their price variable as "clearly an incomplete proxy."

Not least of the problems is that voters rarely vote directly for or against policies. Rather, they vote for candidates for office. Winning candidates subsequently enact a multitude of policies, many of which neither the voters nor their representatives had thought about at the time of the campaign. It is not enough that voters know something about the general ideological reputation of office seekers (à la Dougan and Munger 1989); the devil is in the details. Besides, notwithstanding the elaborate theoretical and econometric attempts to show that politicians are perfect agents (Becker 1983; 1985; Peltzman 1984; 1985; Wittman 1989), we can easily demonstrate that political representatives frequently act in ways that must necessarily run counter to the dominant preference of their constituents. We see this in the U.S. Senate, for instance, every time the two senators who represent the same state split their votes—and such splitting occurs commonly (Higgs 1989d). Remarkably, and quite damningly for models that presume tight linkages between voters and their elected representatives, many of the vote-splitting senators are reelected time and again. So elections are reliable neither as an *ex ante* nor as an *ex post* check on the substantial autonomy of officeholders.

Perhaps the most important case in which legislators and other (including many *nonelected*) officials act independently of control by the voters concerns political action during crises. How many voters could possibly have known in the election of 1940 what the elected federal officials would do during their upcoming terms in office, which were to include, depending on the office, some or all of the years of World War II? How many voters in the election of 1972 had any idea how they wished their representatives to deal with the "energy crisis" of 1973-1974, or even that such a crisis loomed? Who anticipated that George Bush would send U.S. troops into Saudi Arabia to oppose Iraq? During crises, government officials, lacking any reliable means for discovering dominant constituent preferences, necessarily exercise more or less discretionary power. But they do act, often in dramatically important ways.

Once those actions were taken, in a world of path-dependent historical processes the course of events was changed irrevocably (Brennan and Buchanan 1985, pp. 16, 74; Higgs 1987a, pp. 30-33, 57-74). (Ratcheting growth of government spending associated with participation in global wars is confirmed statistically by Rasler and

Thompson [1985], using Box-Tiao tests.) If U.S. voters actually had preferred that the nation not go to war, it was too late to rectify the legislators' mistake in the election of 1942—the fat was already in the fire.

Further, political actions are usually followed by carefully crafted rationalizations, excuses, and propaganda emanating from the politicians and their friends who initiated or supported the actions. (How often do politicians admit policy mistakes?) In this way political preferences, public opinion, even the dominant ideology may be altered, becoming more congruent with what has been done and thereby reversing the direction of causality usually assumed in political models. (On ideology and policy as interactive, see Higgs 1985; 1987a, pp. 67-74; 1989c, pp. 96-98.)

Proposition 12

A corollary of Proposition 11: The judicial branch of government can be ignored.

If analytical political economists have greatly *overstated* the role of legislators (too often viewed as perfect agents of voters) in the growth of government, they have to an even greater degree *understated* the role of judges, at least in U.S. history, where legislation must withstand judicial review of its constitutionality to survive and have ongoing effect. The public choice and related analytical literatures contain almost nothing empirically concrete about the judiciary's role in the growth of American government, although the literature of law and economics offers some useful insights (several chapters in the volume edited by Gwartney and Wagner [1988], as well as Hughes [1977], are pertinent) and the literature on constitutional political economy offers suggestive insights, albeit at a very abstract, quasi-philosophical level (e.g., Friedrich Hayek's *Law, Legislation and Liberty* or various works by James Buchanan and his collaborators). The index of the recent, admirably comprehensive survey of public choice by Dennis Mueller (1989) has no entry for judges or judiciary. Mueller mentions but does not dwell on an oft-cited paper by William Landes and Richard Posner (1975), enticingly titled "The Independent Judiciary in an Interest-Group Perspective." Unfortunately, the thesis of this paper—legislators tolerate an independent judiciary only to augment the longevity and hence enhance the value of the legislative products they sell—is hard to take seriously, at least for anyone who has spent much time studying the constitutional history of the United States. (Cogent critics of the Landes-Posner paper include Buchanan [1975], Samuels [1975], and North [1981, pp. 56-57].)

The U.S. Supreme Court—nine persons appointed for life, answerable to no electorate, legislature, or interest group—played a key role in the growth of American government over the past century. (The relevant legal and historical literature is enormous. For selected references, see the footnotes and bibliography of Higgs [1987a].) Evidently, no one wants to deny this fact, but many analysts seem content to ignore it. The reason, one suspects, is that it doesn't fit into the profession's standard set of puzzles or lend itself to solution by the usual methods of analysis. It requires that one pay attention to particular autonomous individuals with specific values and beliefs. As North (1981, pp. 56-57) has observed, the behavior of the independent judiciary presents us with "the clearest instance of the dominant role of ideology." That fact makes most economists either run for cover or take up arms in visceral opposition.

Proposition 13

Ideology doesn't matter.

Indeed, the idea that people act on the basis of ideology strikes most mainstream economists, including many of those who have written about the growth of government (e.g., Becker and Stigler 1977; Peltzman 1984; 1985), as utterly anathematic. They flee from it as a vampire flees from holy water—perhaps for the same reason, too. Surprisingly, in view of his leading position in the Chicago School, Gary Becker (1985, p. 345) once wrote that "undoubtedly, the decline in laissez faire ideology contributed to the growth of government." He immediately backed away, however, issuing the obiter dictum: "but most of the decline was probably *induced* by the arguments and propaganda of the many groups seeking public largess."

More than 10 years ago, when a few neoclassical economists began to toy with the idea that ideologically motivated behavior might be the cause of certain apparent anomalies of public choice theory (e.g., why people vote), the economic literature took an unfortunate turn. Economists, political scientists, and public choice analysts began to produce an outpouring of problematic econometric studies of roll-call voting in the U.S. Congress. (Recent contributions, with many references to the earlier literature, include Nelson and Silberberg 1987; Lott 1987; 1988; McArthur and Marks 1988; Davis and Porter 1989; Dougan and Munger 1989; Lott and Reed 1989; Richardson and Munger 1990; Zupan 1990; Nollen and Iglarsh 1990.) Roll-call voting was a poor choice of observations for testing whether ideology matters—it was seized upon because it produces numbers that can be cranked through the econometric mill—though even in these studies it seems fairly clear that ideology does matter insofar

as the indexes used to measure it mean what they are supposed to mean.

Elsewhere, I have tried to clarify the concept of ideology, to show how ideology can be understood as consistent with rather than the antithesis of rational action, and to document how ideology affected and in turn was affected by the growth of American government over the past century (Higgs 1983; 1985; 1987a; 1989c). I shall not repeat everything I have written on this subject, but one point requires restatement and emphasis.

The existing thrust of the economic literature, the quest to determine econometrically whether ideology mattered in determining a certain set of political actions, seeks to answer a non-question. Of course it matters. *It always matters*, because people cannot even think about political questions, much less undertake political actions, without an ideology (Siegenthaler 1989; Higgs 1989a; 1989c, pp. 98-100).

How can I make such a claim? Economists are supposed to believe, or at least to postulate for analytical purposes, that people pursue their "economic interests." Open any mainstream text on economic theory and check the arguments of the utility function: sure enough, they consist of amounts of "goods" consumed by the individual; nothing about ideas here, just pounds of potatoes, bottles of beer, trips to the shore, hours of leisure, and so forth. In the words of Gary Becker (1983, p. 374, emphasis added), "the utility of each person . . . depends *only* on own commodities." To consume more of these things is, the mainstream economist supposes, precisely what is meant when one speaks of people's acting in their self-interest. In this context, to speak of a person's economic or material interest would be redundant, because the theory recognizes no other kind. Thus, Thomas Borcherding (1985, p. 378, emphasis added) declares it "an open question whether after the *obvious elements of self-interest* are separated from political action, scope for ideology remains."

The most charitable thing I can say about this view is that it is simply wrong. No one ever explained why it is wrong more clearly and succinctly than Mises (1957, pp. 140, 142, emphasis added):

In the world of reality, life, and human action there is no such thing as interests independent of ideas, preceding them temporally and logically. What a man *considers* his interest is the result of his ideas. . . . Free men do not act in accordance with their interests. They act in accordance with what they *believe* furthers their interests.

Nor are the Austrians alone in appreciating the dependence of interest on belief. Jon Elster (1989, p. 20), for example, recently wrote:

"What explains the action is the person's desires together with his *beliefs* about the opportunities. Because beliefs can be mistaken, the distinction is not trivial."

Ideologies are belief systems about social relations. Chief among their dimensions is the cognitive: ideologies structure and give meaning to a person's perceptions of social life. They also place affective weight on those apperceptions, designating some things good or right, other things bad or wrong. They also point toward a justifiable political program and open up the potential for solidarity with like-minded comrades. Such solidarity serves as an important means of establishing and maintaining a social identity; it helps to determine people's psychologically essential conceptions of who they are.

In myriad ways, the growth of government has involved collective action, a transcendence of the free-rider problem regarded by neoclassical theorists as more or less paralyzing. This transcendence reflects ideologically motivated action. It poses no great puzzle for those who understand that real people act on the basis of two equally propulsive—but inextricably intertwined—motives: to get something *and* to be someone (Higgs 1987b). (See also the discussions of "artifactual man" by Buchanan [1979, pp. 93-112] and "preferences for preferences" and "the role of norms" by Brennan and Buchanan [1985, pp. 68-73, 146-47]; and the discussion of self-interest and the free-rider problem by Hummel and Lavoie [1990].)

Proposition 14

Government grows in order to correct the distortions stemming from externalities.

This proposition, along with Proposition 5 and 15, lies at the heart of the theory of the growth of government usually embraced by mainstream economists (e.g., Baumol 1965; Stiglitz 1989, p. 57). The theory maintains that governments grew in a process of correcting emerging "market failures" associated with monopoly power, externalities, and public goods. As a positive theory of the growth of government the idea suffers, as already indicated, from reliance on magic: a market failure emerges—POOF!—government undertakes a program to remedy the associated deviation from the "efficient" allocation of resources. In the words of Richard Musgrave (1985, p. 287), "the assumption was that government, once advised of proper action, will proceed to carry it out." But no account is given of (a) why either the public or specific government officials know or care about systemic efficiency and (b) even if they do know, what personal incentives they have to take the implied corrective action. In short, a black box stands between the alleged cause and its presumed effect.

What actually fills the black box are the Two Big Collectivist Assumptions: government officials *know* what needs to be done to promote the public interest, and they *act* on the basis of that knowledge.

Apart from the implausibility of the theory because it has nothing to say about the personal incentives and constraints of actual decision makers, the theory does not stack up empirically. A reasonable survey of how the government has grown—that is, an accounting of what it has come to do more often and what it has undertaken now and then to do for the first time—must conclude that only a small proportion of all government activities has anything to do with externalities. One need only examine an organization chart for the government, leaf through the Federal Register, or scrutinize U.S. Statutes at Large, not to mention the detailed budget documents. Evidence of the alleged connection rarely appears. Studies that have sought to find a relation between the growth of government and proxies for growing externality problems (e.g., population density, urbanization, ratio of manufacturing to agricultural activities) have found little or nothing (Borcherding 1977, p. 53; 1985, p. 368; Mueller 1987, p. 119).

The theory of government as fixer of externalities is often quite backwards. Governments themselves compose “the prototypical sector in which decision makers do *not* take accurate account of all the costs as well as all the benefits of each activity” (Yeager 1983, p. 125). In reality, the government is more likely to cause a negative externality than to reduce one. Since the recent revelations in Eastern Europe and the Soviet Union, everyone has become aware of the vast environmental destruction wreaked by government officials there, but one need not rely on these egregious cases to establish the point. According to studies of the United States cited by James Bennett and Manuel Johnson (1980, pp. 133-34),

federal government agencies emit huge quantities of pollutants into the water and atmosphere. The U.S. Department of Defense alone discharges over 335 million gallons of human waste per day, of which 30 percent received secondary treatment or less. The Tennessee Valley Authority (TVA) is the country's largest sulfur dioxide polluter, accounting for 38 percent of total sulfur emissions in the Southeast U.S., and its compliance record with pollution laws is only 16 percent as compared to 74 percent for all utilities nationally.

Recent press reports tell us, and government spokesmen such as Energy Secretary James Watkins admit (*Wall Street Journal*, November 27, 1989), that the government's plants for manufacturing nuclear materials have been poisoning the surrounding air, land, and water for decades while hiding behind their top-secret national security classification. The Energy Department forecasts that the future

expense of cleaning up this mess will accumulate to more than \$80 billion (*Wall Street Journal*, December 12, 1988). Nor are the nuclear plants the only problem of this sort. Already 87 military installations have been placed on or proposed for the Superfund list of the nation's most dangerous toxic-waste sites, and more than a hundred other military facilities may be added to the list. A "Newsday" study concluded that "the armed forces have been slow to move, have resisted state regulators' efforts to force compliance with environmental laws, and continue to violate anti-pollution laws even as officials in Washington, D.C., insist their bases are trying to be better neighbors" (*Seattle Times*, February 5, 1990).

Still, one should not leap to the conclusion that the growth of government had *nothing* to do with programs in response to emerging externality problems, although one ought to refrain from immediately labeling those perceived problems "market failures." Historically, for example, urbanization created severe externality problems in relation to the spread of contagious diseases, and the (mainly local) governments' public health programs responded to these problems in a fashion that in retrospect seems remarkably successful (Higgs 1971, pp. 67-72; 1979; Meeker 1974). Other examples also might be found, perhaps in other areas where public health and safety are at stake. The point, however, is that such examples cannot bear much weight as significant explanations of the growth of government. They do not add up empirically to a big part of the relevant record.

Proposition 15

Government grows in order to supply public goods that the public demands but the free market won't supply.

As already indicated, this proposition belongs to the class of "market failure" explanations of the growth of government. Like all such explanations, it suffers from the infirmities of the behavioral black box. Empirically, however, it seems to possess greater warrant than its cousin, the externality proposition. Although many examples of public goods are problematic—they do not actually involve goods that are totally nonrival in consumption or nonpayers who cannot be excluded—at least one important case remains, namely, national defense. Especially when one conceives of defense as the deterrence of nuclear or other widely devastating attacks against national territory, it seems to be a genuine public good, one for which the free market would make insufficient provision. Nor is the necessity of government provision affirmed only by mainstream economists. Mises himself concluded that "in a world full of unswerving aggressors and enslavers . . . isolated attempts on the part of each individual

to resist are doomed to failure, [and therefore] the only workable way is to organize resistance by the government." Mises went even further, supporting conscription of people to serve in the armed forces (1966, p. 282).

As indicated above, increases in military spending over the past 50 years account for a substantial share, more than a third, of the rise of federal government spending relative to GNP. The arms industries also have become the most heavily regulated sector of the U.S. economy (Kovacic 1990). It would seem, then, that Proposition 15 has a good deal, both theoretically and empirically, to recommend it to students of the growth of government. Of course, the empirical weight that this explanation will bear needs to be kept in perspective: defense spending, for example, now amounts to only about a quarter of federal spending, less than a fifth of all government spending, less than 6 percent of GNP (U.S. Office of Management and Budget 1989, pp. 51, 364), and the defense spending shares are substantially below their levels during the 1950s and 1960s (Higgs 1988b, pp. 18-22).

Before embracing Proposition 15 fully, however, one needs to consider a rather difficult question: how much of the observed increase in the government's military activity represents a response to the public good dilemma (the free-rider problem) and how much represents self-serving exploitation of the public's insecurities by people making little or no contribution to the maintenance of genuine national security (the free-loader problem)?

No simple answer can be given, but some things are fairly obvious. Much military activity has served the interests not of the general public but of the government itself (Hummel and Lavoie 1990). The recent invasion of Panama is an example, as was the earlier invasion of Grenada. Far from seeking a "revelation" of the public's true demand for defensive actions and the derived demand for arms production, the national security establishment has engaged in a series of mendacious efforts to scare the public and stampede the taxpayers into supporting higher levels of military spending—just recall all the weapons "gaps" announced over the past 40 years, most of which were revealed in due course to be overblown or completely bogus (Higgs 1988b, pp. 11-19). Much military spending has done nothing to promote national security, for example, lavish officers' clubs and golf courses, cushy military retirement systems, and maintenance of obsolete facilities such as Fort Monroe, the fort with a moat. Members of Congress have twisted the defense program again and again to aid their quest for reelection (Higgs 1988a; 1989b; 1990a; and many of the chapters in the volume edited by Higgs [1990b]). Anyone who reads the newspapers, not to mention the literature on

military procurement, knows that the big defense contractors, in league with their friends at the Pentagon and in Congress, have siphoned many billions of dollars in rents out of the public treasury during the past half-century, never more than during the bonanza of the 1980s (Stubbing 1985; Fitzgerald 1989).

In sum, it is obvious that the growth of government via increased military activities represents far more than a straightforward effort to achieve a solution to the public good problem. To a large extent, it represents a poorly disguised form of redistributive politics.

Proposition 16

Government grows in order to reduce the transaction costs inherent in a complex modern economy, thereby facilitating a high degree of division of labor and enhancing productivity.

I call this proposition, which is a more sophisticated variant of the Modernization Hypothesis, the theory of the Washington School. Its prime proponent is Douglass C. North, long of the University of Washington (Seattle) and more recently of Washington University (St. Louis). North draws from theoretical work on measurement and transaction costs by Steven N. S. Cheung (formerly of the University of Washington) and Yoram Barzel (still there). Collaborating with North on empirical work connected with the theory has been John Wallis, who earned his Ph.D. at the University of Washington. The thesis began to take shape more than 10 years ago and appeared in North's *Structure and Change in Economic History* (1981, especially pp. 187-98 on the United States). Later papers (North and Wallis 1982; North 1985; Wallis and North 1986) clarified and extended the argument and presented empirical materials in support of it.

An early summary conveys the essence of the argument (North and Wallis 1982, p. 336):

The wedding of science and technology in the late nineteenth century made possible a technology of production whose potential was only realizable with an enormous increase in the resources devoted to political and economic organization—the transactions sector of the economy. A substantial part of this increase has occurred in the market and through voluntary organization, and a substantial share has also been undertaken by government.

The government's part evidently has outpaced the market's part; hence the growth of government.

North's argument traces virtually everything back to a single aspect of societal modernization, the increase in specialization. That increase caused the rise in productivity, hence economic growth; it

necessitated more "contracts across time and space and with unknown second parties," hence a demand for bigger government to supply "effective third party enforcement" (North 1989, p. 113); it fostered ideological divisions, hence the proliferation of politicized interest groups (North 1981, pp. 51, 196-98; 1985); it cheapened tax collection and hence shifted outward the supply schedule of government activities. (Becker [1985, p. 345] tells a similar tale.)

Although Wallis and North's empirical exercises in creative national income accounting are not compelling, partly because the empirical categories just don't match the theoretical counterparts (for some details, see Davis [1986]), there may be something to the Washington thesis. North continually emphasizes that government has grown throughout the Western world and elsewhere over the past century; and, by conventional measures, government is bigger in the more developed countries than in the less developed. A good theory, it seems, ought to account for the apparently pervasive association of economic progress and growth of government in the West. Because rising specialization marks every case, it would appear to resolve the issue. Perhaps to some extent it does, but problems remain.

One difficulty is that the theory is *too* general. Although it seems to match the long-term trend in every Western country—and many others as well—it cannot account for the marked irregularities that have appeared in most cases. The specific shape of the historical profile must be explained by auxiliary theories or in an *ad hoc* manner. The abrupt growth of government that occurred in the United States during the world wars and the Great Depression, for instance, would seem to have little to do, in any immediate way, with changes in the degree of societal specialization (Higgs 1987a, pp. 123-236). Similar questions can be raised about the precise paths followed by other countries.

Another problem: the theory is rather vague, and the attempts to give it empirical substance only heighten one's misgivings in this regard. The concepts of "transaction cost" and "transaction sector" have been stretched to the breaking point. The distinction between "transaction" and "production transformation," though central to the thesis, is blurry at best (Davis 1986).

Further, the explanation of why remote transactions and other features of modern economic life could not be accommodated in the market, an explanation that appeals to "moral hazard, adverse selection, and the demand for public goods" (North 1985, p. 392), is offered almost in passing and needs a much more extensive argument before it can become persuasive. (See Lindbeck [1985, pp. 315-16] for trenchant criticism with regard to the alleged roles of adverse selection

and moral hazard.) Myhrman (1985, p. 277) argues that while North's thesis may explain why governments got bigger during the early stages of economic growth, it does not account for why the growth of government has continued to exceed the growth of the private sector. (Davis [1986, p. 158] makes a similar point.)

Finally, stepping back from the theory and viewing it as a whole, one may get an eerie feeling of unreality. Many of us are convinced that, all things considered, modern governments—the American and just about all the others—hugely *increase* the costs of transacting mutually beneficial exchanges in comparison with what those costs would be in a minimal or night-watchman state. In view of all the taxes, all the direct, highly politicized government participation in markets, all the regulations, all the laws infringing economic liberties on every side, how can anyone suppose that *on balance* the growth of government has reduced transaction costs and promoted economic growth? Perhaps cause and effect have been reversed in the Washington Thesis; perhaps only economically progressive societies can *afford* the deadweight costs of ever bigger governments.

Proposition 17

Government is nothing but an engine of redistribution.

Many of the most cited contributions to the literature make this assumption their point of departure (Meltzer and Richard 1978; 1981; 1983; Peltzman 1980; 1985; Becker 1983; 1985; Benson and Engen 1988; and others cited by Mueller 1987, pp. 122-28). Evidently analysts adopt the assumption because it facilitates the construction of tractable formal models. To simplify the analysis further, investigators usually assume that the redistribution runs from richer to poorer. There is something to be said for simple models, but in this case it is not much.

These models lack even the elementary saving grace of positivism: they do not generate predictions that fit the facts. (For criticism, see Higgs [1987a, pp. 12-15] and Mueller [1987, pp. 126-28].) Peltzman, in his influential 1980 article, claims to present empirical confirmation, but the claims are too ill-founded to be acceptable. Indeed, the econometric methods employed in that article—presumptuous proxy variables, *ad hoc* substitutions for “missing” data, unwarranted specification switches, *inter alia*—fill a chamber of horrors sufficient to discredit the entire undertaking. The methods employed in Peltzman's 1985 article warrant a similar evaluation.

More fundamentally, assuming that government just redistributes wealth simply isn't true, isn't even an approximation to the truth. It's hard for the hard-core anarchists to swallow, but govern-

ments in the West do provide some desired services. Deterrence of foreign aggression, a degree of local protection of life and property, a body of property law and a system of courts for resolving civil disputes, a public health system, public water supplies and sewage disposal, the roads and the traffic rules—all seem to qualify as more or less public goods and as goods genuinely demanded by the overwhelming majority of the public. Of course, even these goods are supplied in ways that one might lodge many complaints against. But the point remains: they are not *just* means of redistribution, even though their financing, production, and distribution have many undeniable redistributive aspects.

National defense, perhaps the most important example, surely receives much political impetus from those who privately appropriate benefits from its provision (Higgs 1990a; Lee 1990; and other chapters in the volume edited by Higgs [1990b]). Still, not many citizens favor unilateral disarmament. Most people want the government to maintain a military establishment adequate to deter foreign aggression. (The evidence of public opinion polls and elections indicates that a substantial number also support military aggression against others, although one might apologize for at least some of those who maintain this position on the grounds that they have been duped to believe the aggression is actually defensive.) In any event, they do not support just giving money to the owners and employees of General Dynamics (GD) in the same way that they support Aid to Families with Dependent Children. Most of them want the military potency produced by the Trident submarines, M-1 tanks, and F-16 fighter planes; only a few of them care whether GD or somebody else supplies the weapons. For the general public, GD's rents are incidental, though of course they are far from incidental in the actual political process by which GD becomes the supplier (Goodwin 1985).

Proposition 18

The modern welfare state merely "filled the vacuum" left by the deterioration of private institutions.

This proposition is still another variant of the Modernization Hypothesis. Modern economic development, it is said, caused socio-economic transformations (e.g., urbanization, greater personal mobility, increased survival of the aged) that sapped the vitality of private institutions. Families, churches, and voluntary associations became less and less able to accomplish their traditional tasks. Hence, government increasingly substituted for them "as the principal institution assisting individuals in time of economic or social misfortune"

(Fuchs 1979, p. 13). Government had to hold the "safety net" when others no longer could or no longer would.

Certainly government activities in immense profusion—countless programs ranging from sex education to mental health care to the federal Foster Grandparents Program—can be viewed as illustrating this thesis. Perhaps the proposition contains more than a grain of truth. But as an explanation of the growth of government, the proposition by itself does not carry us far, and even that much is partly illusory.

A serious defect of the proposition is that once the alleged process of "vacuum filling" had got under way, if not before, the direction of causality must have run in both directions. Yes, perhaps certain socio-economic changes did, say, promote the breakdown of individual responsibility among family members. But the availability of governmentally provided substitute services lowered the cost of irresponsible private actions and hence increased their frequency. Government did not simply substitute for responsible private efforts; it also crowded them out. Without narrowing the focus to a specific activity, not much more can be said. But the crowding-out theory itself is logically unimpeachable, and those with normal eyesight and a little knowledge of history can see evidence of such crowding out on all sides. (See Wagner [1989] for an extended discussion and references.)

Of course, Proposition 18, as an explanation of the growth of government, presents us with yet another case of the black box. When we fill the box in a theoretically and empirically warranted manner, the nature of the explanation changes completely. Question: How do the kinds of people who need a government safety net—presumably those who are destitute, physically or mentally handicapped, aged and infirm, or otherwise in dire straits—exert enough political pressure to elicit the creation of a safety net by those who control the political process? Short answer: They don't. But notice the millions of middle-class administrators, school teachers, social workers, lawyers, urban planners, doctors, nurses, professional and technical specialists, and all the others who act as well paid providers and facilitators of governmentally funded services for the helpless, and then the politics of the welfare state becomes a lot plainer. Also plain is that the rise of the welfare state involved far more than unvarnished altruism (Weaver 1978; Higgs 1987a, pp. 248-51).

Not surprisingly, it involved a great deal of redistributive politics: redistribution not so much from the fortunate to the unfortunate as from the taxpayers to the bureaucrats, providers, and hangers-on. As Lindbeck (1985, p. 327) puts it, "the original 'welfare state,' designed

mainly to provide basic economic security, has gradually developed into a free-for-all competition for favors from the state, with 'every politician trying to buy votes from everybody.'"

Conclusion

In the literature on the growth of government, much that is misguided can be seen as unwarranted reduction. This in turn can be seen as arising almost inevitably from the positivist pretensions that underlie modern social science in general and modern mainstream economics in particular.

The drive toward reduction takes several forms. First, analysts strive to reduce empirical reality to *one measure* of the explicandum or dependent variable. Second, they strive to reduce the theory to *one independent variable* that can carry the entire explanatory load. Third, they strive to reduce historical and geographical diversity so that *one general explanation* applies to all times and places. In sum, the goal appears to be an equation of the form $G = f(X)$, where G is one simple measure of the size of government, X is one simple explanatory variable, and f is a fixed-coefficients functional relation connecting the values of X and G by what amounts to a law of history.

This reductive quest is nothing more than a species of scientism, the attempt to conduct the study of man with the same methods employed to study nonhuman nature. Research in political economy is being carried out as if it were research in physics or chemistry. But people are not atoms; the political economy is not a molecule; and the growth of government is not analogous to the natural growth processes analyzed in biochemistry. The prevailing reductivism, which is both positivist and historicist, founders on the reality that people are purposive, choosing actors whose actions are shaped by their (changeable) beliefs and values and whose personal and societal histories are marked by contingencies with significant consequences, including path dependencies (Mises 1957; 1966; 1978; Rothbard 1979; Higgs 1987a).

Strange to say, one can describe a large part of the recent research on the growth of government as attempts by researchers who neither know nor care much about history to discover laws of history. Small wonder that black boxes litter the field. But here, as in other areas of serious empirical research, there is no good substitute for knowing, quite literally, what we are talking about. One must, then, study history; one must comprehend the great variety of acting and interacting individuals whose actions compose our subject and the diverse and changing institutions that condition the actors' choices.

To this recommendation, a positivist might respond: If there are no laws of history to be discovered, what is the point of studying history? The answer is that there exists much valuable knowledge in the gap that separates unvariable law and utter chaos. Although no laws of history exist—indeed, as Mises (1957, p. 212) explained, “the notion of a law of historical change is self-contradictory”—the study of history can reveal patterns and probable relations. Mises (1957, pp. 264-84) called the search for this kind of understanding “thymology.” He maintained that

what thymology achieves is the elaboration of a catalogue of human traits. It can moreover establish the fact that certain traits appeared in the past as a rule in connection with certain other traits. But it can never know in advance with what weight the various factors will be operative in a definite future event.

So, even though one cannot rely on historical understanding to be apodictic, as one can rely on the pure logic of choice, which the Austrians call economic theory, one must, both in everyday life and in empirical research, constantly place bets. Although one cannot be certain that the relations on which one places the bets will (or did in the past) prevail, one confidently expects to come closer to the truth by taking thymological understanding into account than by closing one's eyes and throwing darts at the dartboard of all possibilities.

It is no accident that many of the leading lights of Austrian economics—Mises, Hayek, Rothbard—have taken historical understanding seriously and devoted much effort to historical research. Mises (1957, p. 293) went so far as to describe historical understanding as not only essential for practical action but worthwhile in another sense as well. “It opens the mind toward an understanding of human nature and destiny. It increases wisdom. It is the very essence of that much misinterpreted concept, a liberal education.”

In view of the wide extent to which the problematic propositions criticized above have been accepted by contributors to the recent literature on the growth of government, a Misesian might well reach the following conclusion. Many of the analysts thought they were formulating and testing economic theory, but in the Austrian sense they were not. Few of them thought they were writing economic history, but in the Austrian sense they were. Unfortunately, much of this inadvertently written economic history has been deeply flawed.

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An Evolutionary Contractarian View of Primitive Law: The Institutions and Incentives Arising Under Customary Indian Law

Bruce L. Benson*

The European conquest and absorption of native American Indian groups obviously produced tremendous changes in the way Indians live and interact with one another. One very important source of change in Indian life was the changes in the rules and institutions of Indian law. Few Indian groups had any sort of strong central legal authority before Europeans began to exert various types of influence on the evolution of Indian law. This does not mean that there was no law, however. Evolving unwritten social contracts among Indian groups had produced well-developed legal systems based on customary rules of conduct which emphasized individual rights and private property. Adjudication procedures were in place to solve disputes without violence. No state-like centralized authority applied sanctions, but sanctions were applied, primarily in the form of economic restitution. These sanctions were enforceable because of reciprocal arrangements between individuals for recognition of law, support of judgments, and community wide ostracism.¹ Such characteristics of primitive American Indian legal systems have been discovered through extensive study by anthropologists.

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¹As E. Adamson Hoebel (1954, p. 294), who is responsible for some of the most important anthropological studies of American Indian law, explained, in virtually all primitive groups:

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What can an economist add to the understanding of Indian law that has not already been said by anthropologists? Economic theory predicts human behavior by considering how individuals react to incentives and constraints in the context of rational choice models. In contrast, most anthropologists adopt an "empirical" approach to law: behavior is not predicted from a theoretical model, but rather observation presumably allows the anthropologist to discern behavior (Hoebel 1954, p. 5). Thus, the following examination will emphasize the institutions and incentives which influence the provision of law and its enforcement, in order to see if anthropologists' observations support economic theory's predictions. In particular, predictions, based on economic theory, will be made as to (1) how a legal system could induce recognition of rules of conduct without strong centralized authority, (2) how institutions and procedures for adjudication and legal change could be voluntarily established, (3) and why a non-centralized legal system dominated by voluntarily established institutions and procedures should emphasize individual rights and private property. In other words, predictions about the characteristics of the implicit evolving social contract which underlies a customary law system will be made based on economic theory, so that a *generalizable characterization* of such legal systems can be developed. Examples of Indian legal systems as they have been reported by anthropologists will then be examined in light of the theoretical predictions.²

The community group, although it may be ethnologically a segment of a tribe is autonomous and politically independent. There is no tribal state. Leadership resides in family or local group headmen who have little coercive authority and are hence lacking in both the means to exploit and the means to judge. They are not explicitly elected to office; rather, they lead by the tacit consent of their followers, and they lose their leadership when their people begin no longer to accept their suggestions . . . As it is, their leadership is confined to action in routine matters. The patriarchal tyrant of the primitive horde is nothing but a figment of nineteenth-century speculation . . . But primitive anarchy does not mean disorder. Anarchy as synonymous with disorder occurs only temporarily in complex societies when in a social cataclysm the regulating restraints of government and law are suddenly and disastrously removed.

²This is not the first time that primitive Indian legal systems have been analyzed from an economic perspective. Baden, Stroup and Thurman (1981) examined the resource management incentives of various American Indian tribes, for example, while Demsetz (1967) explained the incentives to establish property rights and applied his analysis with examples from American Indian history, and Johnsen (1986) explored the formation and protection of property rights among the Kwakiutl Indians. The presentation below follows the lead of these studies, but goes beyond the emphasis on incentives for and the process of property right formation to discuss the *legal institutions* formed for the enforcement of rights, adjudication of disputes, and legal change.

Customary Law as a Social Contract

If law is simply represented by any system of rules, as some have suggested,³ then “morality” and law would appear to be synonymous. However, Lon Fuller (1964, p.30) contended that “law,” when more appropriately “viewed as a direction of purposive human effort, consists in the enterprise of subjecting human conduct to the governance of rules.”⁴ Law and morality are not synonymous. Indeed, law as a purposive human effort can facilitate efficiency-enhancing interaction by reducing uncertainty, as explained below, and therefore it consists of both rules of conduct and the mechanisms or process for applying those rules. Individuals must have incentives to recognize rules of conduct, for example, or the rules tend to become irrelevant, so institutions for enforcement are a necessary component of the enterprise of law. Similarly, when a situation arises in which the implications of existing rules are unclear, a dispute becomes likely, so dispute resolution institutions will be required. Furthermore, as conditions change new rules may be needed, and mechanisms for development of new rules and changes in old rules must exist. Thus, legal systems include mechanisms to induce recognition and acceptance of rules, as well as procedures for dispute resolution and legal change, and consequently, they tend to evolve to display very similar structural characteristics (Fuller 1964, pp. 150-51). Fuller’s definition of law is accepted here, in part because it allows the analysis of law to focus on the institutions involved in the production and enforcement of legal rules, and on the incentives which both lead to the development of and arise as a consequence of those institutions. That is, it lends itself to an economic analysis of law.⁵

³For an example from the anthropological literature, see Malinowski (1926).

⁴This is but one definition or “theory” of law, however. For example, Friedman (1951, p. 281) proposed that “the rule of law simply means the ‘existence of public order.’ It means *organized government*, operating through the various instruments and channels of *legal command*” (emphasis added). Friedman’s perception of the law falls under the legal positivist (or “New Analytical Juristo”) umbrella which typically identifies law with the legal institutions that are observed: generally the state (see Hart [1961] for a forceful modern exposition of the legal positivist view in the tradition of Hobbes and Austin). Fuller, on the other hand, held an evolutionary (or “natural law”) perspective. One question emphasized below, of course, is whether state-like coercive power is required for effective law. Thus, one purpose of the following analysis is to support a natural law theory and reject legal positivist definitions of law which assume such a requirement.

⁵There are other reasons for adopting this definition as well. See note 4 above, for example, and Benson (1990) for more details.

Customary law

Individuals can be forced to recognize law, or they can be persuaded, thus voluntarily avoiding the proscribed behavior in recognition of personal benefits. Hayek (1973, pp. 96-97) explained that many issues of law are not “whether the parties have abused anybody’s will, but whether their actions have conformed to expectations which other parties had reasonably formed because they corresponded to the practices on which the everyday conduct of the members of the group was based. The significance of customs here is that they give rise to expectations that guide people’s actions, and what will be regarded as binding will therefore be those practices that everybody counts on being observed and which thereby condition the success of most activities.” Customary law is recognized, not because it is backed by the power of some strong individual or institution, but because each individual recognizes the benefits of behaving in accordance with other individuals’ expectations, *given* that others also behave as he expects. Alternatively, law can be coercively imposed from above by a minority.⁶ Of course, such law will require much more force to maintain social order than is required when law develops from the bottom through mutual recognition and acceptance.

Reciprocities are the basic source both of the recognition of duty to obey law and of law enforcement in a customary law system. That is, individuals must “exchange” recognition of certain behavioral rules with one another for their mutual benefit. Individual A must agree (perhaps explicitly as through a contract, or perhaps implicitly through behavioral patterns that establish expectations) to act in a certain way in his relationship with B in exchange for B acting in a certain way in his relationships with A. Fuller (1964, pp. 23-24) suggested three conditions which make a duty clear and acceptable to those affected: First, the relationship between the parties immediately affected must be voluntary; second, both parties must gain from the exchange; and third the parties must expect to interact fairly regularly so that the resulting duty can be reversible in the sense that what one individual is required to do at a particular time can be required of another at a different time.

Since the source of recognition of customary law is reciprocity, private property rights and the rights of individuals are likely to constitute the most important primary rules of conduct in such legal systems (Benson 1989a; 1990). After all, voluntarily recognition of

⁶For more detailed discussion of the differences between customary and authoritarian law, see Benson (1990).

laws and participation in their enforcement is likely to arise *only when substantial benefits from doing so can be internalized by each individual*. Individuals require incentives to become involved in any legal process, of course, and incentives can take the form of rewards (personal benefits) or punishments. Punishment is frequently the threat which induces recognition of law imposed from above, but when customary law prevails, incentives must be largely positive. Individuals must expect to gain as much or more than the costs they bear from voluntary involvement in the legal system. Protection of personal property and individual rights is a very attractive benefit.⁷

Under customary law, offenses are treated as torts (private wrongs or injuries) rather than crimes (offenses against the state, the tribe, or the "society" at large). This is inevitable since interaction between individuals is required for something to become an issue of law. Thus, a potential action by one person has to impact someone else before any question of legality can arise. Any action which is not clearly of this kind, such as what a person does alone, or in voluntary cooperation with someone else but in a manner which clearly harms no one, is not likely to become the subject of a rule of conduct under customary law. Indeed, Fuller (1981, p. 213) proposed that "customary law" might best be described as a "language of interaction." This function of facilitating interaction can only be accomplished with recognition of clear (although not necessarily written) codes of conduct enforced through reciprocally acceptable, well established adjudication arrangements accompanied by effective legal sanctions.

Customary law as an unwritten constitution

James Buchanan (1972a, p. 37) posed the following question: if government is dismantled, "how do rights re-emerge and come to

⁷Private property is not a European or capitalist invention, nor is it exclusive to free market economic systems. It is a key characteristic of all societies wherein custom is the primary source of law and reciprocity is the primary impetus for recognition. Thus, for example, private property has been a central component of primitive legal systems, at least until authority begins to be centralized and backed by organized coercive power that can be used to attenuate and transfer such rights (Benson 1989a; 1990). As Hayek (1973, p. 108) explained, it is an

erroneous idea that property had at some late stage been 'invented' and that before that there had existed an earlier state of primitive communism. This myth has been completely refuted by anthropological research. There can be no question now that the recognition of property preceded the rise of even the most primitive cultures, and that certainly all that we call civilization has grown up on the basis of that spontaneous order of actions which is made possible by the delimitation of protected domains of individuals and groups.

command respect?" How do "laws" emerge that carry with them general respect for their "legitimacy?" He contended that collective action would be necessary to devise a "social contract" or "constitution" designed to define the rights of the people in the first place and to establish the institutions to enforce those rights (1972a; 1972b). However, collective action for the production of law can be achieved through the process of individual agreements, with the resulting rules spreading to other members of a group if they are useful rules. For instance, Demsetz (1967) explained that property rights will be defined when the benefits of doing so cover the costs of defining and enforcing such rights. Such benefits may become evident because a dispute arises, for example, perhaps implying that existing rules do not adequately cover some new situation. The parties involved must expect the benefits from resolving the dispute (e.g., avoiding a violent confrontation), and of establishing a new rule, to outweigh the cost of resolving the dispute and enforcing the resulting judgment, or they would not take it to the adjudication system.

Dispute resolution actually can be a major source of legal change since in most types of interaction, situations arise wherein uncertainty exists as to what expectations are legitimate. Consequently, it becomes necessary to appeal to an arbitrator or mediator (the development of such institutions is discussed below) if violence is to be prevented. Such an adjudicator will often have to make more precise those rules about which differences of opinion exist, and at times even to supply new rules because no generally recognized rules exist to cover a new situation (Hayek 1973, p. 99). If the relevant group accepts the ruling it will affect other individuals' behavior as well: "Even in the absence of any formalized doctrine of *stare decisis* or *res judicata*, an adjudicative determination will normally enter in some degree into the litigants' future relations and into the future relations of other parties who see themselves as possible litigants before the same tribunal. Even if there is no statement by the tribunal of the reasons for its decision, some reason will be perceived or guessed at, and the parties will tend to govern their conduct accordingly" (Fuller 1981, p. 90).

An adjudicated decision becomes part of customary law only if it is seen as a desirable rule by all affected parties, however. It is not coercively imposed on a group by some authority backing the court. Thus, good rules which facilitate interaction tend to be selected over time, while bad decisions are ignored (Benson 1988). For new rules to be accepted by the members of an affected group, they generally must build upon, and indeed, extend existing rules. That is, the fundamental principles of customary law (e.g., private property and

individual rights) do not change.⁸ They are simply extended to cover new situations. As Fuller emphasized, "Tradition is not something constant but the product of a process guided . . . by success" (1964, p. 90). Fuller's characterization of customary law is therefore quite consistent with Hayek's (1973) view of an evolving social contract.⁹

Dispute resolution is not the only source of legal evolution under customary law. Rules of conduct evolve in many ways as individuals interact with one another. Individuals may simply observe that others are behaving in a particular way in light of a new situation, and adopt similar behavior themselves, recognizing the benefit of avoid-

⁸As Epstein (1980, p. 266) explained, for example:

the merits of freedom of contract in no way depend upon the accidents of time and place. Acceptance of that basic principle will not however put an end to all contractual disputes. It remains to discover the terms of given contracts, usually gathered from language itself, and the circumstances of its formation and performance. Even with these aids, many contractual gaps will remain, and the courts will be obliged, especially with partially executed contracts, to fashion the terms which the parties have not fashioned themselves. To fill the gaps, the courts have looked often to the custom or industry practice. The judicial practice makes good sense and for our purposes introduces an element of dynamism into the system . . . But it by no means follows that conduct in conformity with the custom of one generation is acceptable conduct in the next. The principles for the implication of terms, I believe, remain constant over generations. Yet the specific rules of conduct so implied will vary with time and with place.

The basic rules of private property and freedom of contract characterize customary law systems. As such systems evolve, the need for extensions of these basic principles to cover unanticipated circumstances always arise, however, and the customary law adapts through spontaneous collaboration, building on the existing base of substantive principles.

⁹Buchanan has been critical of some evolutionist analysis of the development of legal constraints, of course. For example, (Buchanan 1989, p. 44):

A generalization of the evolutionist paradigm may suggest that, although institutions of social interaction do change through time, these changes can only emerge through the long process of cultural evolution. According to this perception, it is not legitimate to infer that basic institutions of social order, basic rules for the socio-economic-legal-political "game," can be "chosen" in any manner analogous to the choices of options that are available to persons, in a collective decision process, within an existing set of institutional rules.

However, in the case of customary legal systems which spontaneously evolve, all changes in the institutions and rules reflect individual choices. Rules and institutions can be "deliberately chosen" (see Benson [1988] for an example of a deliberately induced change in customary law) in a manner which is very analogous to one particular type of collective decision—Wicksell's unanimity or consensus rule. If a new rule or institutional arrangement is acceptable by all the affected parties it becomes part of customary law. The outcome of this process of constitutional choice is not "government" as popularly conceived, perhaps even by those who advocate a constitutionally limited government such as Buchanan, but individuals still end up being "governed" by a set of enforceable rules of conduct.

ing a confrontation by trying to establish a different type of behavior. As a consequence of adopting such behavior, the individuals create an obligation to one another to continue the behavioral pattern, and a new rule of customary law has been created. Fuller (1981, pp. 227-28) explained:

Where customary law does in fact spread we must not be misled as to the process by which this extension takes place. It has sometimes been thought of as if it involved a kind of inarticulate expression of group will. . . . This kind of explanation abstracts from the interactional process underlying customary law and ignores their ever-present communicative aspect.

Thus, customary law evolves as the benefits of adopting new practices and customs are recognized by individuals.

Institutions for enforcement similarly evolve due to recognition of reciprocal benefits. Consequently, customary law is appropriately viewed (Fuller 1964, pp. 128-29) as:

a branch of constitutional law, largely and properly developed outside the framework of our written constitutions. It is constitutional law in that it involves the allocation among various institutions . . . of legal power, that is, the authority to enact rules and to reach decisions that will be regarded as properly binding on those affected by them.

Consider the development of dispute resolution procedures. No state-like coercive authority exists in a customary system to force disputants into a court, so some other means of inducing disputants to peacefully resolve their disagreement must evolve. Since rules of obligation under customary law are in the nature of torts it is up to the aggrieved party to pursue prosecution. Consequently, individuals have strong reciprocal incentives to join with others to form mutual support groups for legal matters.¹⁰ The resulting group contract makes group members obligated to aid any other member in a valid dispute, given that member has fulfilled his obligations to the group in the past. Thus, ability to obtain support in a dispute depends upon an exchange of reciprocal loyalty.

¹⁰The makeup of such groups may reflect family (as it frequently was in primitive societies [Hoebel 1954; Barton 1967; Benson 1989a]), religion (as in some primitive groups [Goldsmidt 1951]), geographic proximity (e.g., as in Anglo-Saxon England [Benson 1990]), functional similarity (as with commercial law [Trakman 1983; Berman 1983; Benson 1989b]), contractual arrangements (e.g., as in medieval Ireland, and in medieval Iceland [Peden 1977; Friedman 1979], and see Anderson and Hill [1979], Umbeck [1981a] and Benson [1989c] for examples from American history, such as mining camps, land clubs, and wagon trains of the eighteenth-century West), or some combination of these sources of recognition and trust.

Reciprocal support groups give individuals a position of strength should a dispute arise. This does not mean that disputes are settled by warfare between groups, however. Violence is a potential means of solving a dispute, but it is a very costly one. After all, if the accuser and his support group attacks the accused, members of the accused's group are obliged to avenge the attack. Thus, group members (as well as non-group residents in the vicinity of those directly involved) are generally very anxious for a peaceful settlement in order to avoid an extended violent confrontation.¹¹ Consequently, arrangements and procedures for non-violent dispute resolution should evolve very quickly in customary law systems.

The impetus for accepting adjudication to settle a dispute in a customary legal system (as well as an authoritarian system¹²) is the ever present threat of force, but use of such force is certainly not likely to be the norm. Rather, an agreement between the parties must be negotiated. Frequently, a mutually acceptable arbitrator or mediator is chosen to consider the dispute. This individual (or group of individuals) will have no vested authority to impose a solution on disputants, however. The ruling, therefore must be acceptable to the groups to which both parties in the dispute belong. An arbitrator or mediator's only real power under such a system is that of persuasion.¹³

Since customary law is in the nature of tort law rather than criminal law, if the accused offender is determined to be guilty, the "punishment" tends to be economic in nature: restitution in the form of a fine or indemnity to be paid to the plaintiff by the offender. Other forms of punishment (e.g., imprisonment) are inefficient, after all, in that they are costly for the group to administer and do not generate sufficient benefits to restore a victim. Liability, intent, the value of the damages, and the status of the offended person all may be considered in determining the indemnity. Every invasion of person or property is generally valued in terms of property.

A judgment under customary law that is acceptable to individuals

¹¹In fact, under customary law a great number of rules of adjudication typically prevent a direct physical confrontation between the two parties in a dispute as long as some other means of working towards a settlement is available (e.g., see Barton 1967; Pospisil 1971; or Benson 1989a).

¹²The threat of violence is ultimately what backs any system of property rights (Umbeck 1981a; 1981b).

¹³In this light, Fuller (1981, p. 134) observed that "A serious study of mediation can serve . . . to offset the tendency of modern thought to assume that all social order must be imposed by some kind of 'authority.' When we perceive how a mediator, claiming no 'authority,' can help the parties give order and coherence to their relationship, we may in the process come to realize . . . that social order can often arise directly out of the interactions it seems to govern and direct."

in all the affected groups is typically enforceable because of an effective threat of total ostracism by the members of the entire community. Reciprocities between the groups, recognizing the high cost of refusal to accept good judgments, takes any individual who refuses such a judgement outside his support group, and he becomes an outcast, or outlaw. Fear of this severe boycott sanction means that the adjudicated solutions tend to be accepted, of course. Once again, the threat of violence does not, in itself, imply that violence must be the norm. Indeed, the threat of violent punishment is a significant deterrent to illegal behavior in every legal system, but as stressed above, customary legal systems have as one of their basic impetuses the desire by individuals to avoid violence.

We are now in a position to examine examples of customary law systems among American Indians. One group which remained relatively isolated from European influence at least until the second half of the nineteenth century was the Yurok Indians and their Northern California neighbors.

Yurok Law

The Yurok Indians of the nineteenth century lived along the lower reaches of the Klamath River and the nearby Pacific Coast (Kroeber 1925). Fishing and food gathering were major sources of subsistence, but sufficient production occurred to allow for a considerable amount of trade, relative to many other American Indian groups of the period (exchange was facilitated by a monetary system). In order to facilitate interaction, including trade, these Indians had "a welter of legal relationships in the realm of personal law" (Hoebel 1954, p. 52). In particular, as Goldsmidt (1951, p. 506) found, after studying the Yurok, Hupa, Karok and some of their Northern California neighbors, property was universally held in individual private ownership. Indeed, property was extremely important for the maintenance of personal status and prestige (Hoebel 1954, p. 52). Thus, private property rights were sharply defined with regard to both privileges and liabilities. Title considerations, for instance, included: (1) separation of title to different types of products; (2) ownership rights within the territory of an alien group (e.g., Hupas owned property inside Yurok territory, etc.); and (3) the division of title between persons. Ownership was complete and transferable.

Consider an example. A canoe owner had exclusive rights of use of the canoe. If someone used a canoe without permission, or in some way misused or harmed the canoe, the owner could collect damages. In addition the owner could transfer the property rights to another through sale or as a gift. However, there were also well recognized

duties or obligations which went with canoe ownership (Hoebel 1954, p. 57). For instance, a canoe owner was obliged to ferry a traveler across the river if it was requested. Refusal resulted in restitution to the traveler. In this regard, however, the traveler was liable for any damages suffered by the canoe owner as a consequence of ferrying. For instance, if the canoe owner's house burned down while he was ferrying a traveler, the traveler was liable for full damages. Property rights clearly could be quite complex.

Similarly, for instance, the owner of a fishing spot on the banks of the Klamath had exclusive use of the site. However, he could sell a temporary right of use to a second party if he wished. Extension of such a right carried with it a liability as well (Hoebel 1954, p. 55). The owner was responsible for seeing that the user was not injured while fishing. If a user slipped on a rock, for example, and suffered an injury, the owner had to pay damages. Ownership rights for a fishing spot could also be permanently divided in the sense that several individuals could hold limited ownership rights to the same spot, with each having exclusive rights (including liability) to its use during certain specified times.

In addition to rules of conduct, the Yurok and their neighbors also developed an enterprise of law. Socially, these Indians were organized in households and villages. There were no class or other inalienable group affiliations, and no vested authoritarian position—that is, *no state-like tribal government* with coercive power (Goldsmidt 1951, p. 511):

We may dismiss the village and tribe with a word. Though persons were identified by their village of residence and their tribe of origin, neither of these groups had any direct claim upon the action of the individual, there was no village nor national government, no village or tribal action in wars. Significantly, the affiliation could effectively be broken by moving to a distance or to one of the other tribes within the orbit of the culture.

These Indians, nonetheless, had a well-developed system of private judging (Hoebel 1954, pp. 52-53; Landes and Posner 1979, p. 243). Each man in these tribes was a member of a "sweathouse group"—a clique of the men from three or more neighboring houses who shared a sudatoria (Goldsmidt 1951, p. 512). These groups often consisted of members of the same family, but family relationships were not necessary. An individual was free to join any group as long as others in the group agreed. The groups were more than just social organizations, however. They carried out religious rituals *and* they acted in mutual support in the case of a dispute. Each member had

strong incentives to provide such support because at some point in the future he might find himself in a dispute and require the current disputant to reciprocate (the Yurok also believed that religious or supernatural benefits were achieved by joining such groups, and of course, other personal benefits were also associated with socializing with neighbors).

Fuller's three conditions for reciprocal recognition of a legal duty were clearly met within in the Yurok sweathouse groups. The arrangements were voluntarily entered into. An individual exchanged a commitment to support others in the case of a legal dispute, for the equivalent commitment from those other individuals for the same support should he find himself in such a dispute. And finally, the arrangement was symmetrical in the sense that each individual had strong incentives to support a victim in the event of a dispute, because he realized that he might require the same kind of backing in the future. The fact that men voluntarily entered into such reciprocal arrangements implies that the accompanying duties were clearly spelled out and generally fulfilled when a dispute arose.

It was up to the victim or his support group to institute proceedings against an offender, but formal procedures had to be followed. Victims did not have the right to seek revenge or collect damages directly. Rather, if a Yurok wanted to process a legal claim he would hire two, three or four "crossers"—non-relatives from a community other than his own. The defendant in the claim would also hire crossers and the entire group hired by both parties would act as go betweens, ascertaining claims and defenses and gathering evidence. The crossers would render a judgment for damages after hearing all the evidence. Note that crossers were similar to modern arbitrators or mediators rather than public sector judges, because their judgments were not backed by the police powers of a centralized authority.

A large range of offenses were recognized by these Northern California tribes, ranging from murder to adultery, theft and poaching, to curses and minor insults (Goldsmidt 1951, p. 512). All offenses were against the person since there was no formalized social unit. Yurok law contained a clearly indicated fine or indemnity to be paid to the plaintiff by the offender, given the crossers' judgment was that the defendant was guilty. Liability, intent, the value of the damages and the status of the offended person were all considered in determining the indemnity. Every invasion of person or property could be valued in terms of property, however, and each required exact compensation. Again, law was clearly in the nature of modern tort law rather than criminal law.

The crossers' judgment was enforceable because there was an effective threat of total ostracism by the entire community of tribes. In the case of this Northern California society, if someone failed to pay the fine he automatically became the plaintiff's wage slave. If he refused to submit to this he became an outlaw which meant that anyone could kill him without any liability for the killing. In particular, if an offender became an outlaw, the offended individual's sweat-house group would back his effort for physical retribution. The rest of the "community" would not interfere, again through reciprocal recognition that any member of the society might at some time require such community support in ostracizing a law breaker. Fear of this severe boycott sanction meant that the crossers' judgment tended to be accepted, of course. As in other societies, then, obeying the Yurok's laws led to relatively predictable consequences. Disobeying, and the resulting ostracism by the community, meant living outside the social order, and the added uncertainty that entailed provided strong incentives to obey the laws, or yield to whatever punishment the crossers' proposed in the case of a violation. Recognition of the authority of Yurok law and support of the adjudication procedure that they developed was, therefore at least in part, a consequence of the reduced uncertainty that legal system provided.

If a victim chose not to follow the formal adjudicative procedures, then he violated the law and was liable for damages. Consider an example involving ownership rights to a beach. Owners had to allow seal hunters access to the water, but in exchange the land owner was to receive the flippers of all sea lions caught on his beach. A case which took place during the 1860s involved a wealthy and powerful individual who owned about four miles of beach around his village (see Hoebel 1954, pp. 54-55; or Spott and Kroeber 1943, pp. 182-99). A particular seal hunter disregarded the owner's property rights on several occasions by failing to give him the sea lion flippers he had a right to, but rather than follow the formal procedures of law, the beach owner took revenge by assaulting the hunter's father and wounding him. The hunter's support group, consisting of members of his family in this case, then instituted a suit against the beach owner for damages. The crossers ruled that the assault damages were slightly less than the original damages that the beach owner could have claimed against the hunter, but under the circumstances both legal claims were nullified. Nonetheless, the hunter remained antagonistic against the beach owner, and two days later he cursed the beach owner. This was a violation of Yurok law, and the beach owner entered a legal claim. While the crossers were at work, however, a

relative of the beach owner assaulted the hunter and killed him. Thus, a member of the beach owner's support group simultaneously disregarded due process while adjudication was under way, and took the life of a member of the society—both were very serious violations of Yurok law. At this point a blood feud might have broken out. However, the incentives to avoid such a costly action were strong, and the slain hunter's mother entered a legal claim for restitution. Specifically, she maintained that the beach owner's property rights to the flippers of sea lions killed on his beach should be transferred to her family. She won the award, and was backed by the community at large. Further violence was avoided. This case illustrates that even the very powerful and wealthy were subject to the law. Of course, it also illustrates that individuals broke the law and resorted to violence on occasion. But the same is true of any legal system. Members of urban gangs regularly kill members of rival gangs today, and public police kill hundreds of individuals annually who refuse to yield to the criminal justice system. The Yurok system did stop the violence from escalating further and endangering the social order of the community.

Naturally, it is difficult to judge the actual degree of certainty and efficiency of this primitive legal system. However, there is some indirect evidence. For one thing, these California Indians were "... a busy and creative people . . . [and] poverty was not found here" (Goldsmidt 1951, pp. 513-14). If incentives were in place to induce "busy and creative" behavior it is likely that individuals and their private property rights were quite well protected. In fact, the very existence of the relatively complex customary system of private property indicates that the legal system was relatively efficient as compared to what it evolved from. As Hayek explained, individuals adopt and follow rules of conduct "because actions in accordance with them have proved more successful than those of competing individuals or groups" (1973, p. 18).¹⁴

¹⁴Actual examples of changes in Yurok law are not documented. This is, unfortunately, true of much of the anthropology literature, although not all of it (Benson 1988). As Pospisil explained, "Since many societies have been studied for a relatively brief period (one or two consecutive years), and since many investigators have been heavily influenced by the early sociological dogma that divorces the individual from the 'social process,' it follows that there are very few accounts of volitional innovations [in primitive law]" (1971, p. 215). Nonetheless, crossers, in the process of settling disputes, were likely to, on occasion, make new rules.

There is, in fact, a more fundamental reason to expect that the laws of the Yurok could and did change. After all, those laws were not imposed on this society by some sovereign. They *developed* or *evolved* internally. Clearly the Indians of Northern California were a very homogeneous group by the time their laws and legal procedures

In this regard, it should be stressed, however, that the success of one group over competing groups does not imply conquest through warfare. In the case of the Yurok, for instance, the earliest sweat-house groups probably proved to be an effective social arrangement for internalizing reciprocal legal and religious benefits, *relative* to previously existing arrangements. Others saw those benefits and either joined existing groups or copied their successful characteristics and formed new groups. In the process the arrangements may have been improved upon, become more formal (almost contractual) and effective. It is perfectly conceivable that neither members of the earliest groups nor those which followed even understood what particular aspect of the contract actually facilitated interactions that led to an improved social order—they may have viewed the religious function to be their main purpose and paid little attention to the consequence of their legal functions, for instance. Customary law and society develop spontaneously and conterminously. Those customs and associated legal institutions that survive are relatively efficient because the evolutionary process is one of voluntary “natural selection” where laws or procedures that serve social interaction relatively poorly are ultimately replaced by improved laws and procedures.

The discussion of the Yurok legal system has introduced several general features that probably characterized virtually all primitive Indian legal systems at some point prior to the pressures put on these legal systems by the arrival and continual westward movement of Europeans (the Yuroks were simply one of the last Indian groups to feel this pressure). Naturally, many of these legal systems have not and cannot be studied, so it cannot be said with certainty that all such systems displayed these features at some point in their development. Nonetheless, there are theoretical reasons to expect that they did and anthropological studies of many primitive systems support these expectations.¹⁵ These features are: (1) rules of conduct which emphasized a predominant concern for *individual rights and private property*; (2) the responsibility of law enforcement falling to the victim backed by *reciprocal arrangements for protection and support when*

evolved to the level described above, but this homogeneity had to develop in conjunction with an evolving process of interaction and reciprocity facilitated by customary law.

¹⁵Legal systems all over the world have, at one time or another, been characterizable in the same way that the Indian systems discussed above were characterized. Some anthropologists and legal scholars distinguish between “stages” of legal development, for instance, and would put such customary systems in one or more of the stages occurring before centralization of political power and formal institutions of government arise (e.g., Malinowski 1926; Diamond 1950). Also see note 14 above in this regard, as well as Benson (1988; 1989a).

a dispute arose; (3) standard *adjudicative procedures* established in order to avoid violent forms of dispute resolution; (4) offenses treated as torts punishable by *economic payments in restitution*; (5) strong *incentives to yield to prescribed punishment* when guilty of an offense due to the reciprocally established *threat of social ostracism* which led to physical retribution; and (6) legal change arising through an *evolutionary process of developing customs and norms*. Let us turn to another example (among many) of the primitive Indian systems that anthropologists have studied—the Comanche.¹⁶ We shall find that the same characteristics listed here apply, even though the actual institutions and procedures differed in some ways.

Nineteenth-Century Comanche Law

By the nineteenth century tremendous changes had already occurred in the life of the plains Indians, as a direct result of the movement of Europeans into America (Hoebel 1954, pp. 126-27). Before the arrival of the Spanish, for instance, these Indians were largely river bound, and rarely traveled over the plains. Thus, their lives were probably similar to the Yuroks in many ways. The introduction of horses by the Spanish allowed the plains Indians to significantly expand their hunting territories. Many became nomadic tepee-dwelling buffalo hunters as a consequence of this and other factors set in motion by the arrival of Europeans. One of those factors was British and French settlement of the eastern part of the continent which began to displace many of the Eastern woodland Indians. As these Indians moved west, conflicts between tribes began to occur. Previously peaceful Indians were forced to become warriors in an effort to protect their homes, property, and hunting territories. On top of this, the fur trade created an additional reason for this conflict. British companies gave guns to certain tribes and encouraged them to drive off tribes which traded with the French. The French responded in kind. Tribes with relatively poor arms were driven westward, and more new tribes entered the plains. Tribes native to the plains were displaced as a consequence. One of these tribes was the Comanche.

In the sixteenth century the Comanche were part of the Shoshonean group of tribes occupying the headwaters of the Missouri and Yellowstone Rivers. They were not at all warlike (Hoebel 1954, p. 129). The Shoshonean lived in isolated family bands that were economically self-sufficient. By the eighteenth century, the Com-

¹⁶Hoebel explained that the Comanche provides only one example of many such primitive societies where law existed without a political state (1967, p. 188).

anche had split from the rest of the Shoshonean as they were pushed to the southern plains while the Shoshones were driven over the Rocky Mountains by tribes coming in from the east. This led to a tremendous change in the Comanche way of life, in part because the Comanche were one of the first Indian groups to acquire horses. Their numbers grew, and they became very militant as they strove to defend their newly claimed territory and wealth from other Indians and from the advancing Europeans. Military prowess became a source of considerable pride and prestige for the individual Comanche.

The Comanche population of the nineteenth century was distributed among a large number of loosely organized, autonomous bands. "The tribe was no more than a congerie of bands held together as a peace group by the bonds of common tongue and culture. There appears to have been no machinery for institutionalized political action on a tribal scale" (Hoebel 1967, p. 184). Beyond that, there was no clan organization and even kinship principles were weak. There was not even a formal organization for warfare. "War chiefs" were simply outstanding fighters with long records of accomplishments against enemies. Anyone was free to organize a war party *if* he could convince others to follow him, but such individuals had leadership roles only when others voluntarily followed, and only for the period of the raid (Hoebel 1954, p. 132). They had no authority in internal tribal matters such as law. There were also band headmen or "peace chiefs," but they too had no formal authority. They were typically well-respected wise men of the band who made certain routine decisions regarding the day to day operation of the band, such as when and where to move the camp. However, "Anyone who did not like his decision simply ignored it. If in time a good many people ignored his announcements and preferred to stay behind with some other man of influence, or perhaps to move in another direction with other men, the chief had lost his following. He was no longer chief, and another had quietly superseded him" (Hoebel 1954, p. 132). A respected peace chief might have relatively more influence in important decisions of the band as well, because he was typically a wise man with considerable experience—people respected his opinion. However, he had no special authority in such decisions, and all men of the band were free to have their say. In particular, he had no "law-speaking or law-enforcing authority" (Hoebel 1954, p. 133). Yet there was an implicit social contract establishing an enterprise of law.

In this apparently very unorganized society there was a very clear, widely held set of rules of conduct. These rules reflected individual rights to private property. Indeed, among the Comanche, "the individual is supreme in all things" (Hoebel 1954, p. 131). Some have

suggested that the plains Indians did not recognize private property because private land holdings by individuals were not recognized. However, property rights are developed only after the benefits of doing so outweigh the costs (Demsetz 1967), and the nomadic hunting and gathering lifestyle of the plains Indians, particularly after the introduction of horses, meant that individual's rights to specific tracks of land would be worth very little. Furthermore, prior to settlement of the region by white men, land was still very abundant within the range of most of the plains tribes, so private property rights to land were largely unnecessary (groups of individuals, such as bands and clans claimed certain hunting territories, of course). Other goods (e.g., horses, weapons, food, etc.) were privately held.

Reciprocally recognized ostracism in the society provided the incentives which backed the rules regarding individual rights, just as with the Yurok. In fact, among the Comanche, a male who suffered a legal wrong had to take action against the offender or face social disgrace as a coward, so a form of social ostracism played a significant role in inducing victims to bring suit. For example, adultery and the taking of another's wife were considered as direct attacks against the husband. The husband had to respond to such an attack in order to maintain his reputation. "Ridicule was the weapon used by society to cause a man to proceed after the cause for action had become public" (Hoebel 1967, p. 189). Thus, the aggrieved could either confront the accused directly and publicly by stating the offense and demanding what he considered appropriate compensation for damages, or send a representative to prosecute the claim, implying the matter was not worth his personal attention, or form a group to prosecute. However, if an individual lacked self confidence and/or had insufficient status to gather a prosecuting group, Comanche "legal procedure" allowed for two options. First, the plaintiff could ask a war chief—or "champion-at-law"—to act for him, and if this warrior agreed he would then be obliged to see the process through to the end (see further discussion below). Or second, an old woman could be sent to prosecute, ". . . hoping through presenting his cause pitifully to touch the compassion of the offender and so gain larger damages than he himself would dare demand" (Hoebel 1967, p. 191).

Once the charges were made under any of the procedures noted above, the next step was bargaining. Thus, the rules of adjudication delineated a system more closely aligned with modern mediation than with arbitration. Adjudication was even less clearly associated with persons than it was under the Yurok system of crossers. Nonetheless, it existed. Widely held rules of adjudication procedure were followed. For instance, there were virtually no cases in which evi-

dence or witnesses were presented. The accuser was expected to ascertain guilt before confronting the offender so no evidence was necessary. Of course, guilt could be denied, and it is not clear what the procedure was under such circumstances. The fact is that, "Denial of guilt by an accused . . . was so uncommon that there are not cases enough to draw sound conclusions" (Hoebel 1967, p. 192). Indeed, the defendant typically recognized that he would have to pay restitution when he committed an offense (Hoebel 1954, p. 134), since the Comanche rules of obligation were well known. He simply hoped to use the adjudication process to keep the payment light, while the plaintiff naturally hoped for a large payment. The plaintiff or his representatives typically would state his demands for damages with formal politeness in front of other members of the group, but there was no judge or arbitrator to determine the compensation to be paid. And unlike the Yurok's, there was no customary code of payments relating to various offenses. Therefore, cases could only be settled by mutual agreement reached through bargaining. Previous legal decisions might serve as a guide, of course, and in this respect Comanche law was case law (Hoebel 1954, p. 135).

As Hoebel (1967, p. 193) explained, "A reputation as a doughty slayer of enemies was a handy thing," since the solution reached in the bargaining process often reflected the relative skills of the two parties in warfare. In Comanche law, as in all law, the ultimate threat was violence. If the bargaining process broke down the parties had the right to use force. Nonetheless, the obvious implication drawn from this discussion that "might makes right" is clearly inappropriate in the Comanche case. As noted above, a plaintiff need not prosecute his claim by himself. Only those who were sure of their courage relative to the defendant actually did so. If an offended individual was not confident of his bargaining strength he could gather his relatives (particularly his brothers) and perhaps other friends together to aid him in seeking compensation. This was a much less formal arrangement than the Yurok's sweathouse cliques, but a person's ability to put together a group for support still was clearly a reciprocal arrangement—friends and relatives were willing to provide support because they might need the plaintiff's support in some future dispute. Among the Comanche, however, this privilege was apparently not granted to the offender (Hoebel 1967, p. 196). Thus, the legal procedures gave added protection to the aggrieved.

Of course, this could lead to such a large show of force that the defendant could be cowed into paying unduly high restitution. One clear advantage of giving an overbalancing of force to the prosecuting side rather than the defenders side, of course, is that such a system

provides a relatively strong deterrent to illegal behavior. Nonetheless, the over-balancing was not as great a problem as it might appear (Hoebel 1967, p. 196). One constraint on the size of a plaintiff's group, and therefore on the show of force, for instance, was that any friend or relative called upon to join the group received a share of the damages paid, and group participants' claims to shares of the compensation took precedent over the plaintiff's claim. Punishment was in the form of economic restitution, but if too large a group was gathered, the offended party might end up with virtually nothing as restitution for the harm done to him. Beyond that, the need for a large show of force meant that the plaintiff lost considerable prestige within the band. Thus, he had incentives to keep the support group in any dispute to a minimum.

The strongest reciprocal linkage among the Comanche was between brothers, and this was the primary source of support in a dispute. Some individuals had no brothers, perhaps because they had died in warfare, or perhaps because the individual had initially been captured from another tribe. The Comanche were constantly recouping their losses in warfare with captives taken as children. These children acquired full rights in Comanche society and many were adopted by Comanche families, thus establishing kinship linkages (Hoebel 1954, p. 137). Some captives were not adopted, however, and while they achieved free status, they never established the reciprocal kinship ties necessary in a dispute with a strong defendant. Nonetheless, even those injured parties who could not gather a group for support had recourse, as noted earlier—"men whose status was so low that on the personal and kinship basis they were, in effect, without status were still guaranteed protection under the Comanche law . . . There was the institution of *champion-at-law*" (Hoebel 1967, p. 198). The champion-at-law was not an arbitrator or even a mediator. He served to represent a damage claim in the bargaining process and, if need be, in physical combat.

There were no payments to convince a warrior to act as a champion. He did not receive a share of the compensation paid by the offender. Threat of ridicule seems to have provided sufficient incentives, however, since any warrior who refused to serve as a champion was held to have done so because he feared the defendant. No war chief was willing to admit fear. Hoebel felt that the "institutional capitalization of these factors is an amazing piece of social engineering" (1967, p. 200). But as Fuller (1981, pp. 243-44) noted, one advantage of customary law is that it "does not limit itself to requiring or prohibiting precisely defined acts, but may also designate roles and functions, and then, when the occasion arises, hold those discharging

these roles and functions to an accounting for their performances. . . . Stable interactional expectancies can arise with reference to roles and functions as well as to specific acts; a language of interaction will contain not only a vocabulary of deeds but also a basic grammar that will organize deeds into meaningful patterns."

Procedures developed by the Comanche were clearly designed to tip the scales of relative strength in such a way as to generate a bargained settlement—that is, to *avoid a violent confrontation*. The accused was not necessarily put at a tremendous disadvantage but there appears to have been sufficient force arrayed against him to convince him that he was likely to be better off bargaining in good faith. The ". . . Comanche legal system is therefore to be viewed as a not so badly balanced mechanism, which operated without the organization of government" (Hoebel 1967, p. 200). Given the primitive, warlike nature of nineteenth-century Comanche society, their unwritten social contract produced rules and legal institutions which represent a remarkably efficient, violence-free system of internal order.

Conclusions:

Amendments Imposed on the Social Contract

As pressures from European settlement mounted, the way of life of American Indians changed dramatically. They were forced into military confrontations among themselves and with the advancing white settlers. The resulting changes set the stage for amendments to implicit social contracts within some tribes, even before the American government subjugated them, suppressed their law, and put them on reservations. For example, some tribes began to organize and centralize authority, primarily for warfare, and this centralization frequently had legal ramifications. Consider the Cheyenne, for instance. Before 1600 they were a food-gathering society residing around the lakes near the headwaters of the Mississippi River (Hoebel 1954, p. 144). They were pushed westward during the seventeenth century and sought sanctuary along the Missouri river in the Dakotas, where they built earth-lodge villages and adopted corn farming. During the eighteenth century they were pushed further and became a nomadic horse tribe of the plains. Unlike the Comanche, however, the Cheyenne clearly recognized the advantages of organization for warfare. They developed a formalized military system consisting of six "soldier societies," and the beginnings of a centralized tribal government in the form of tenured chiefs in a tribal council. Law took on a tribal, or communal nature as a consequence of the growing power of the soldier societies and tribal council. Hoebel suggested that there were

"social purposes" of Cheyenne law by the nineteenth century (1954, p. 130), but this simply means that the individual and his rights were no longer paramount in all things. Indeed, individuals were considered to be subordinate to supernatural forces and spirit beings, who in turn were represented by the central tribal council; this council presumably had ultimate authority over all other elements in Cheyenne society (Hoebel 1954, pp. 142-43).¹⁷

Cheyenne bands scattered during the winter months, but during the summer they joined together as a tribe. Here the tribal council of 44 chiefs ruled. These chiefs were appointed for specific tenure (unlike chiefs among the Comanche, for example), and each chief, upon completion of his tenure, appointed his own successor. If a chief died his successor was appointed by the other chiefs. These council members were the individual bands' peace chiefs as well, and one duty of the chief was to act as a mediator in disputes. Thus, justice was becoming centralized. The soldier societies also developed legal functions. Initially, this was limited to the maintenance of order on communal hunts and during tribal ceremonies, but "in the dynamic flow of crisis and cultural change in which the Cheyenne were caught in the nineteenth century the military societies were steadily expanding the area of their legal powers . . . the Cheyenne military societies *assumed jurisdiction* in a large variety of dispute and misbehavior situations . . ." (Hoebel 1954, p. 155, emphasis added). They made new law and frequently enforced their decisions with physical punishment and or banishment.¹⁸

The Cheyenne legal system prior to the advent of this outside pressure apparently was, like most North American Indians' legal systems, characterized by a social contract which established decentralized institutions and customary law, emphasizing individual rights and private property.¹⁹ The social contract was amended, not by mutual recognition of all affected parties arising out of reciprocity, but by the use of organized power which came about as a consequence of external forces resulting from the advancing tide of European

¹⁷This is very similar to the development of kingship in Europe, where kings claimed that they had legal authority because they were descendants of gods, or later under Christianity, because they had divine rights to rule (Benson 1990; Berman 1983).

¹⁸The importance of military power in the early development of centralized legal authority is also similar to what occurred under European kings (see note 17 above), as is the increasing use of physical punishment instead of economic restitution (Benson 1990). With the rise of coercive authority, punishment becomes more arbitrary.

¹⁹This cannot be stated with certainty, but see footnote 15 above and the textual discussion to which it refers.

settlement.²⁰ The consequences of such amendments can be seen even today. The institutions of American Indian law that have developed on reservations since the federal government began to loosen its control over reservation Indians and their property rights in the early to mid 1970s are dominated by the centralized authority of tribal governments with their tribal councils, courts and tribal police. Beyond that, many of the property rights on reservations are increasingly designated as tribal or communal, under the control of the centralized tribal governments. This is exemplified by a large increase in tribal ownership of reservation lands (see Anderson and Lueck 1989), but tribal governments are also making decisions regarding the allocation of many other economic resources on reservations for activities like large development projects. Cornell (1987, pp. 63-64) points out that many tribal councils cite a commitment to preserving Indian culture and traditions as a primary justification for not releasing control over tribal resources to individual Indians, and for not decentralizing reservation institutions. If today's Indian political leaders mean maintaining the traditions and culture inherited from the very brief period of Indian history during which external forces led to centralization and increasing emphasis on communal rights, then for the most part, they are really speaking of a culture which was already tremendously influenced by the coming of the white man. If Indian leaders truly wish to preserve Indian tradition as it was when Europeans began to influence Indian society, however, then they should be *reestablishing* private property rights and decentralizing the legal system.

²⁰One weakness in a customary social contract established under a unanimity rule (see note 9 above) is an apparent inability to prevent amendments imposed by powerful minorities when they become organized enough to exert their will. Of course, it is not clear that any constitution can prevent such actions once groups organize sufficiently to become powerful. Thus, an important feature of a social contract, assuming the normative goal of preserving individual liberties, should be the establishment of institutions and constraints which limit the incentives to organize and centralize power. A customary social contract can be quite effective in that regard, in the absence of external pressures such as military invasions by other organized groups (Benson 1990).

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Austrian Capital and Interest Theory: Wieser's Contribution and the Menger Tradition

A. M. Endres*

Doctrinal investigation has now established that fundamental theoretical points of divergence separated the founder of the Austrian economics tradition, Carl Menger, and another leading Austrian economist, Eugen von Böhm-Bawerk. Böhm-Bawerk's capital and interest theory, in particular, stressed a degree of classical materiality and adopted a level of aggregation sharply in conflict with the basis of Menger's contribution (Endres 1987). As Streissler and Weber (1973, p. 231) speculate: "Böhm-Bawerk's Menger cannot be the whole Menger." Menger's successor in the chair of economics in Vienna was Friedrich Wieser.¹ On the occasion of the centenary of one of Wieser's principal contributions to economic theory—*Natural Value* (1889)—the time seems apposite to assess whether, and to what extent, the economic-theoretic legacy of Carl Menger endured in Wieser's work.² Standard renditions of early Austrian economics in history of economic thought textbooks usually suggest that Wieser's work can be placed squarely in the Menger tradition.³ Indeed, going from Wieser's (1923) biographical account of Menger and from Wieser's (1891) survey of Austrian value theory, we should not be led to suspect otherwise.⁴ However, Wieser's place in furthering the tradition of economic theory begun by Menger is

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¹For two recent general appreciations of Wieser and his work see Streissler 1986 and 1987.

²Wieser 1889 was an elaboration and refinement of Wieser 1884. The latter is well-known for introducing the equi-marginal principle into the theory of production and for its subjective cost theory.

³For example, Hutchison (1953, p. 153) argues that Wieser (1889) bears "strong family resemblances to Menger's *Grundsätze*." Rothschild (1973, p. 209) is of the view that "Wieser built on his [Menger's] foundations."

⁴See also the "Preface" in Wieser (1889, especially pp. xxxiv-xxxv).

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impugned in Streissler's revealing analysis of Menger's contribution. Streissler (1972, pp. 429, 430) suggests that Menger's followers in the Austrian tradition, including Wieser, progressively "escaped" their master over time and "assimilated other traditions" with the consequence that "much of what was genuinely Menger's tradition got lost."⁵

It has been said of Wieser that he "occupies a position of indisputable importance in the history of economics" and that he "presented one of the best theories of capital which had emerged" in his time (Stigler 1941, pp. 158, 177).⁶ Yet Wieser's (1889) theory of capital and interest which is later enunciated and extended in Wieser (1891 and 1914) is mostly still unappreciated in the literature.⁷ Instead, there has been extensive analysis of the putative apotheosis of "Austrian" capital and interest theory provided originally by Böhm-Bawerk in 1888 and as later refined by Wicksell (e.g., Kregel, 1976, pp. 28-33; Blaug 1978, pp. 498-569; Brems 1988). As well, Streissler (1972, pp. 434-36) concentrates exclusively on those elements in Böhm-Bawerk's capital and interest theory which possibly displeased Menger. To anticipate one of our conclusions, Streissler leaves out of account Menger's probable *sympathy* for Wieser's formulations of the capital and interest problem.⁸

Accordingly, in this article we give special consideration to Wieser's much-neglected capital and interest theory in order to assess its origins and composition, and ultimately to estimate the extent of Wieser's departure from the Menger tradition. We compare, as and where the detail of our exposition demands, Wieser's theory of capital and interest with other contemporary Austrian and non-Austrian treatments of that subject. Our attention will also be focused on the relations between Wieser's theory and the broad directions given by Menger for the construction of an adequate theory of capital and interest—a theory which, regrettably, Menger (1888 and 1950) left very much inchoate.

⁵An example, as Streissler and Weber (1973, p. 227 4n) explain, is Menger's monetary theory for which Wieser, when rewriting Menger's article on "Money" for the *Handwörterbuch der Staatswissenschaften* substituted an entirely different version.

⁶Cf. Knight (1950, p. 31), who praises Wieser's capital theory, regarding it as "sounder" than both Menger's and Böhm-Bawerk's views on the subject. Knight (1935, p. 158) also pays tribute to Wieser's theory of interest.

⁷Two exceptions in recent literature are Rothschild (1973) and Streissler (1987) which touch *tangentially* on matters of concern in this article.

⁸To be sure, Streissler and Weber (1973, p. 229) allude, all too briefly, to one crucial theoretical point of separation between Menger and Wieser: Menger's "vision of production was a time consuming multi-stage process—an approach that did not appeal to Wieser."

Wieser's Concept of Capital

The protean nature of the term "capital" in both economic theory and everyday use, necessitates extended discussion of the term in Wieser's work. Menger (1888) insists that economists should take cognizance of the popular, everyday concept of capital as a pecuniary magnitude; capital in this view is, for the *individual*, a fund of purchasing power which consists of money and productive assets calculated in terms of money.⁹ Wieser (1889, p. 125 1n) complains, in deference to Menger's concept, that the popular concept is too broad because it encapsulates "all the parent wealth of an acquisitive economy existing in or calculated in money, without respect to the technical nature of the instruments of acquisition." Wieser searches for a universal capital concept applicable in a communistic state as well as in a private, acquisitive economy.¹⁰ Thus, "to take note of those forms of capital which serve in the formation of income outside of production" as loosely implied in Menger's concept, is "too closely connect[ed] with the specific condition of the existing economic order of things" (Wieser 1889, p. 125 1n).¹¹ Wieser rejects identification of the subsistence fund with capital *à la* Jevons and Böhm-Bawerk. The subsistence fund exists to maintain labor whereas capital must be associated with things upon which laborers employ their labor power. Therefore, the form of capital—"natural" or "productive" capital as Wieser terms it—is confined to "perishable or . . . movable means of production," in other words, to producers' technical means of production. Computations of the value of such capital may be made in monetary units. The implication is that Menger was led astray in identifying the monetary valuation of capital as substantially identical to the enduring content of productive or natural capital as Wieser (1914, pp. 296-98) understands it. Wicksell (1893, pp. 104-05) concurs with Wieser's view and adopts Wieser's definition in his own work.¹² Hayek (1941, p. 46) also finds Wieser's definition useful (see Figure 1).

⁹On Menger's concept compared with Böhm-Bawerk's see Endres (1987).

¹⁰Cf. Wieser (1914, p. 62): "All references . . . to the nature of capital must be such as will meet the approval not only of the supporters of the existing order but also the most radical apostles of socialistic views. To accomplish this, it is necessary to eliminate from the current, practical concept every reference to the pecuniary form of capital and to private property."

¹¹Cf. Schumpeter's (1934, pp. 120-21) remarks on Menger's concept. For Schumpeter capital includes various means of payment and other circulating media which serve to provide entrepreneurs with control over capital goods.

¹²In drawing a distinction between capital and non-capital, Wicksell (1893, p. 105) rejects Böhm-Bawerk's division between the aggregate of intermediate goods (social capital) and a national subsistence fund (national capital) in favor of Wieser's view that capital "must be more related to the 'consumability and mobility' and therefore ready availability and utilization of capital-goods in the narrower sense."

Kinds of Resources	Permanent (non-consumable)	Non-permanent (consumable)
Non-producible ("original")	a	b
Producible ("augmentable")	c	d

Figure 1
Hayek's Delineation of Alternative Types of Capital

Source: F. A. Hayek, *The Pure Theory of Capital* (Chicago: University of Chicago Press, 1941), p. 58 2n.

Chronologically speaking, as far as definitions are concerned Wieser, Wicksell, and Hayek restrict the form and content of capital to *b* and *d* in Figure 1. Restricting the capital concept to non-permanent resources enables Wieser to state, and to attempt to solve, the "capital problem" under a specific set of stationary economy conditions.

The Capital and Interest Problem in a Stationary Economy

For Wieser, "one of the most important and difficult problems of economic theory [is] . . . to explain the fact that capital yields a net return" (1889, p. 124). Three sets of economic circumstances are distinguished. First, he conjectures that there was a period in economic history where there was "almost no capital," zero property in capital and therefore "zero of return from capital." Second, and more pertinent to the economic system under consideration in *Natural Value*, there was the stationary economy case defined by a constant, positive net return to capital; a positive, "prevailing" or natural rate of interest; neutral time preference; and zero capital accumulation (1889, pp. 149-50). Third, a "progressing" or growing economy case is distinguished where there is a positive, possibly increasing, net return to capital; a positive, but fluctuating rate of interest which depends on the rate of technical change; and net capital accumulation (1889, p. 50; 1914, pp. 134, 348).¹³

¹³The stationary and progressing cases are often discussed side-by-side in Wieser's work. For example, see the discussion of capital value and interest in *Natural Value* (1889, Book 4) and in *Social Economics* (1914, pp. 29-35).

Following Hayek's terminology in Figure 1 capital for Wieser is a stock of non-permanent resources which are periodically consumed and reproduced. Capital is designated "production" or "natural" if it yields a net return. Productive capital may permit production in a progressing economy to be maintained at a permanently higher level than would be possible without it. In a stationary economy, where there is no net capital accumulation (after reproduction and maintenance), the net return of capital is transformed into consumption goods (Wieser 1914, pp. 71, 134).¹⁴ Capital productivity may have either a physical or value basis. Both physical and value productivity relate to Wieser's concept of the net return:

Physical productivity exists where the *amount* of goods which form the gross return is greater than the amount of capital goods destroyed . . . Value productivity exists where the value of the gross return is greater than the value of the capital consumed. (1889, p. 126, his emphasis)

Proof of physical productivity is a necessary precondition for proof of value productivity. To resolve the capital problem the economist's ultimate task is to show that capital has value productivity.

In formulating the capital problem for the stationary economy Wieser postulates (implicitly) that all capital is completely consumed in the hypothetical production interval. The production process is repetitive but *not* statical—in the sense that production takes place in a time interval and in the sense that there is not strict simultaneity between the use of inputs and the production of outputs. *All* output arrives at the *end* of the production process, that is to say, at the end of the life of the capital goods. In short, we have a point input-point output theory of production. The amount of capital in use, both in terms of volume and quality, is fixed for the purpose of simplification; there are fixed production coefficients and diminishing returns are inadmissible (Wieser 1889, pp. 125-44).¹⁵ Output prices at the begin-

¹⁴In a stationary economy "capital is used only to bring forth consumption goods. In a progressing society it is also used to bring about an increase of productive commodities" (Wieser 1914, p. 71).

¹⁵It is as if Wieser is maintaining that the conditions of capital supply are fixed by nature. Cf. Stigler (1941, p. 174), who states rather imprecisely that "the total supply of capital" is assumed fixed in Wieser's theory. Wieser, it should be emphasized did not assume that the amounts of capital in use could be varied in a stationary economy; there was no given supply *schedule* of capital evident in Wieser's stationary economy model. Similarly, Robbins (1930, p. 208) states that Wieser was "assuming fixity of supply" by which, Robbins proceeds to explain correctly, is meant that a fixed volume and quality of capital is assumed to be in use. No allowance is made by Wieser for flexible supplies along a given capital supply schedule; instead, he reasons in terms of *single* point price-quantity relations.

ning of the production interval are expected to be constant, and in conditions of perfect certainty in the stationary economy, such expectations cannot be disappointed. One consequence of constant output prices is that physical and value productivity must be proportional. Wieser's theory of imputation is developed under these assumptions as early as 1884, and indicates that a portion of output must be assigned to capital. Following Thünen, capital is *asserted* to have a given net physical productivity, otherwise it would not be employed (Wieser 1884, pp. 139-41; 1889, pp. 126, 131).¹⁶ Capital produces a gross physical product some of which—a physical surplus—is not consumed in production. In value terms the value of capital cannot exceed the value of the gross product. In Wieser's example, the

materials . . . out of which . . . bread is produced, cannot possibly be worth more than the bread itself. And those things from which the materials . . . themselves are produced, and which, consequently, are the producers of bread one stage removed, have, in the prospective gross return—the perishable bread—a maximum limit of value. (1889, p. 140)

The physical or net return produced cannot wholly be absorbed by capital reproduction; thus if "from the value of 105, 5 are set aside as fruits which may be consumed without preventing the full replacement of capital, only the remainder of 100 can be reckoned as capital value" (1889, pp. 140-41).

In commenting on Wieser's 'solution' of the capital problem, Stigler (1941, p. 177) complains from a standard neoclassical equilibrium perspective that the assumption of constant output value

eliminates the problem of the relation of physical to value productivity, and consequently ignores also the problem of effects of variations of factor supplies on their relative shares of the product.

Wieser's stationary economy is *not* formulated as a Walrasian or Marshallian-type equilibrium. He does not, in particular, envision inputs, including capital, along fixed market supply *schedules* with the stationary behavior of the amounts of the factors actively used in production emerging *pari passu* with the fixity of all the unknowns of a solution as a consequence of a determinate general equilibrium system. This point is missed in Dobb (1973, p. 195) which, in evaluating Stigler's criticism of Wieser's 'solution,' maintains that Wieser may have been aware of the possibility that "an appropriate equilibrium-condition (e.g. equality of costs and revenue) can be postulated

¹⁶Wieser comes dangerously close to assuming what he originally aims to prove at this point. See Böhm-Bawerk's (1914) criticisms of Wieser's procedure, also detailed in the "Wieser's Hybrid Capital and Interest Theory in Retrospect" section below.

to allow for some *mutual adjustment* of product-prices and output and prices of producers' goods *in the course of reaching equilibrium*" (emphasis added). However, no such simultaneous mutual adjustment or equilibrating process is evident in Wieser's stationary economy. Wieser's (1889, pp. 86-92) elucidation of factor pricing in the "general imputation" process (where factors have alternative uses) provides the main ground for doubting the applicability of Marshallian or Walrasian equilibrium notions to his work. He emphasizes discrete, manifold, distinguishable units of producers' goods. In the stationary economy capital goods are not always readily substitutable with other factors; they exhibit strong degrees of complementarity and indivisibility.¹⁷ As is well known, his "general imputation" theory assumes a number of unique optimal production coefficients—a number exactly equal to the number of factors. The assumption of fixed coefficients makes no allowance for variations in factor supplies during or between production intervals. Furthermore, the exclusive determinants or 'causes' of factor costs are final demands for consumer goods. (Thus, for instance, labor supply could not vary along some given supply schedule subject to the disutility of labor).¹⁸ Brems (1986, p. 11) wrongly characterizes Austrian imputation theory, including Wieser's as,

dealing with static general equilibria. In such equilibria, mathematics—even the rudimentary mathematics used by Walras—would have taught them [Menger, Wieser and Böhm-Bawerk] the lesson that a variable is neither the "cause" nor the "effect" of any other. All variables are determined on an equal footing and simultaneously, and all are the effects of the only causes found in the model, i.e., its parameters.

Following Menger in spirit and workmanship, Wieser's construction of imputation theory attempts in principle to remain consistent with the underlying ultimate or generative causes of economic phenomena, that is, to isolate the simplest elements from the complexity of everything real. This Austrian philosophical position rejected any notion of *strictly mathematical determination* of variables in a static general equilibrium system. As demonstrated in the Menger-Walras correspondence:

¹⁷As Rothschild (1973, p. 219) observes, Wieser could be regarded as a forerunner of economists in the twentieth century who reasoned in terms of a finite number of production plans and in terms of discontinuities or "corners" in aggregate production functions (e.g., Leontief, linear activity analysts).

¹⁸See Edgeworth's review of *Natural Value* in Edgeworth (1925, pp. 51-52). For a more recent account see Rothschild (1973, p. 216).

Having been taught by his father to regard universal concomitance and exact proportionality [between *raretés* and prices] as the criteria of causality, Léon Walras felt that his construction of an overall system of simultaneous equations bound together by the marginal utility principle had proved that *rareté* was the cause of value. Menger, on the other hand, thought that the object of economic research was to discover those laws governing market phenomena which can be traced back to their ultimate genetic determinants in man's . . . nature. Mathematics cannot do this. . . . (Jaffé 1976, pp. 521-22)

Wieser was also a captive of Menger's philosophic outlook. Wieser's method, like Menger's, was causal-genetic rather than mathematical-functional and causal relations were sequential for both writers.

The assumption of fixed production coefficients affects Wieser's results in the strong case, stationary economy context. It is precisely in this context that Wieser's capital and interest theory is developed. Beyond the strong case, Wieser (1889, pp. 89-90), like Menger (1950, pp. 162-63), recognizes both the diversity of possible factor combinations and the likelihood that these would outnumber the types of producers' goods available. He does not pursue the possibility of a determinate, static, general equilibrium solution which would have dealt with these complications. Stigler (1941, p. 170) therefore labels Wieser's theory of imputation "distasteful" since it is "overdeterminate" and derivation of a "stable equilibrium" solution is rendered impossible. Wieser's very recognition of heterogeneity in the sphere of production implies that equilibrium solutions for factor pricing of the kind desired by Stigler could not capture demonstrably more fluid and more concrete situations where factor combinations exhibited extreme diversity. Indeed, argues Wieser (1889, 90n),

[a]mong all the different kinds of goods employed in production, it would be difficult to find one which . . . would always be combined with others according to the same unalterably fixed formula.

Moreover, in acknowledging that factor combinations are changing and changeable (Wieser 1889, 90n), it is implied that the problem of factor pricing may only systematically be discussed as a disequilibrating process.¹⁹ Lastly in this connection, to suggest, following

¹⁹Mathematical refinement and "analytical sophistication" may well have allowed Wieser to produce a more determinate, equilibrium (even Wicksellian) solution for this imputation theory, as Rothschild (1973, pp. 220-23) demonstrates. Considering what Wieser (1914) has to offer, it is seriously to be doubted whether Wieser would have been comfortable with intellectual concentration on the stationary economy and the general imputation theory with which stationariness was associated. Wieser (1914) hardly shows unstinting devotion to equilibrium theorizing.

Stigler (1941, p. 170), that Wieser's assumption of constant output prices is equivalent in content to assuming that final demands are infinitely elastic along a determinate, continuous, demand schedule, attributes more to Wieser's work than is textually supportable. Demand *schedules* are not evident in Wieser's sketch of the stationary economy; the potential for 'stationary'-like movements along either a fixed demand or supply schedule as a consequence of an *emergent*, equilibrium solution is not contemplated by Wieser since he reduced notions of supply and demand to *single* point, price-quantity relations. The economy is already at rest; factors are already optimally arranged as far as Wieser is concerned.²⁰

We turn now to the related problem of interest on capital. How does Wieser explain it? Interest on capital and 'profit' coincide in the stationary economy.²¹ Interest expresses some "definite relation between capital value and net return." An interest *rate* is the percentage of net increment to capital employed in a specific production interval. In a stationary economy in a large number of "connected" cases of production *the* rate of interest is the general percentage of increment to all capital in the market (Wieser 1889, pp. 141, 144). Wieser is guarded about generalizing the rate of interest to all forms of property, perhaps heeding Menger's earlier warning (Menger 1888, p. 181). Wieser restricts his analysis of interest to producers' capital.²² Nevertheless there are allusions in *Natural Value* to possible equalization of interest rates in the strong stationary economy case, between interest on various forms of producers' capital and on consumption loans, and, on another level, equalization between money market rates and rates ruling in markets for different types of producers' capital. Effectively, the demand and supply of money and the demand and supply of producers' capital are regarded as identical. In the stationary case, the equalized natural rate of interest is determined independently of monetary factors, and solely by the rate of return

²⁰Cf. one of Dobb's (1973, p. 196) suggested interpretations of Wieser's procedure where it is conjectured that it resembled Marshallian short-period equilibrium analysis. Again, this interpretation cannot be sustained since the Marshallian short-period allowed producers' decisions to alter quantities of inputs supplied with respect to price and marginal cost (Marshall 1920, pp. 314-15, 412).

²¹In the dynamic, progressive economy, interest and profit become different income categories. See the "Capital and the Trend of Interest in a Progressing Economy" section of this paper.

²²It is essential to recall Wieser's concept of natural capital at this point. It excluded durable consumption goods including "material possessions of service trades and goods rented for use [e.g., dwellings] and including loan-capital for lending on these goods" (Wieser 1914, p. 297).

on capital invested in producers' goods. The amount and value of capital goods is brought into strict conformity with the costs of producing them, thus regulating the interest rate (Wieser 1889, pp. 145, 155ff).

Time preference is allowed to vary between individuals but the net societal effect is to value present goods as equal to future goods of like quantity and quality. Time preference is therefore neutral and not apparently relevant in explaining *the existence* of a positive rate of interest (Wieser 1889, pp. 16-19; 1914, p. 131). Instead Wieser adopts another ground for *explaining* interest as if it were a sufficient condition for a positive rate of interest to obtain in a stationary economy as he conceives it. That is, he appeals to the inherent productivity of capital as a cause of the differences in valuation in the present and in the future.²³ Wieser's productivity theory of interest is founded upon the assumption that the net physical productivity of capital, which cannot directly be observed, has been established by imputation, supplemented if necessary by introspection if the logic of his imputation theory is not fully accepted.²⁴ A net physical return on capital creates a value discount on the future. For Wieser, *present* possession of capital was equivalent to having received a net return from the use of that capital in the immediately *preceding* production interval. In a stationary economy possession of capital at a *future* date (the end of the next production interval) guaranteed the same net return but at the *end* of that interval.²⁵ Therefore, if

wants are continuously to find the same satisfaction, equal amounts of return must continuously be produced. And if equal amounts of return are continuously produced, capital must remain continuously the same in substance. But if capital is actually to remain the same

²³That the asserted technical productivity of capital is neither a necessary nor a sufficient condition for explaining the existence of a positive rate of interest in a stationary economy (following Irving Fisher) is now very well known, and need not detain us here. For a standard textbook treatment see Blaug (1978, pp. 531-32).

²⁴Wieser would not have been deterred by criticisms of his imputation theory. His case that capital yields a net return and that interest represents the net increment of capital could, he believed, be clinched by facts gleaned by the method of introspective psychology. In "testimony to . . . [the] correctness" of his capital and interest theory Wieser had merely submitted "axioms which every layman recognises," "axioms of ripened experience" (1889, pp. 143-44).

²⁵Thus "capital which, in twelve months from the date of possession yields the same gross return (say 105) and the same net return (say 5), is valued at the date of possession at the same amount (say 100). It is, nevertheless, not a matter of indifference whether the capital comes into possession now or only at the end of the twelve months inasmuch as possession now guarantees a return of interest besides" (Wieser 1889, pp. 142-43).

in substance, and so is able to yield continuously *the same returns*, this must find expression in a valuation which ascribes to capital a higher value, the *earlier* point in time it comes into our possession. For the earlier point of time, the earlier and consequently the greater, the return that may be expected. (Wieser 1889, p. 143, emphasis added)

This passage is hardly unambiguous. Indeed, Wieser might be mistakenly arraigned for introducing dynamic elements into his theory of interest which contradicts conditions outlined earlier for production in a stationary economy. The notion of 'continuous' renewal of capital substance is misleading if taken too literally. To remain consistent with his concept of stationariness we must think of discrete, hypothetical production intervals. Whatever the length of the production interval the economy "shows neither progress nor retrogression." Constant returns in *value* terms for any particular stationary economy are ultimately determined by "future need values" which do not change (Wieser 1914, pp. 71, 141). Capital in Wieser's sense is used-up completely in each interval and, from interval-to-interval, in order for production to *recur*, interest presumably exists in order to ensure reallocation of the same 'capital substance' to the same uses as in previous intervals. This is to say also, that a positive net yield on capital is required to ensure capital reproduction and therefore to keep the 'stationary' economy 'stationary' in Wieser's sense. For heuristic purposes the stationary intervals themselves may potentially have different hypothetical durations which completely depend, correspondingly, on the assumed physical productivity of capital.

We are now in a better position to comprehend the preceding passage quoted from *Natural Value* (p. 143). In that passage, Wieser is implicitly comparing recurring production processes in a stationary context; each process yields the same constant *physical* product at the *end* of each production interval, but each is characterized by different production intervals and therefore by different qualities of capital.²⁶ Wieser suggests, in other words, that capital employed in a shorter production interval and which yields the same physical rate of return in each recurring interval, has a higher *value* productivity than capital with the same physical productivity but which takes a longer production interval. This interpretation has two important implications. First, Wieser *presupposes* a positive interest rate; he

²⁶ This conclusion is in broad agreement with Wieser's theory of imputation which uses fixed coefficients. Every form of capital of better quality than another has a higher return imputed to it. In comparing qualities of capital it is the net return that decides the imputation (Wieser 1889, pp. 131-33).

does not prove that the interest rate will be positive. Second, a higher opportunity cost of waiting is entailed for the same physical returns that arrive at the end of a longer production interval. Interpreted in this way, Wieser's 'explanation' of interest in his model of the stationary economy does not admit diminishing returns. By contrast, in Böhm-Bawerk's well-known explanation of the reason for a positive rate of interest, present capital goods yield a larger physical product than an equal quantity of future capital goods at a future date applied to roundabout production because of diminishing returns from a lengthening production interval. Parenthetically, there is a "period of production" notion in Wieser's theory although *not* one which involves the *introduction* of more productive time-consuming processes. Wieser's production interval is one characterized by a given production process yielding constant physical returns.

Despite Wieser's attempt to assert neutral time preference, we cannot avoid the implication in his stationary economy that a degree of impatience is involved on the part of producers who have rights of possession (entrepreneurs or central planners as the case demands) over a given volume of capital of the same quality (as opposed to capital of lesser quality) which is merely periodically duplicated. Furthermore, it seems for Wieser that these possessors avowedly desire quicker physical returns, and thence greater value returns, over successive recurring production intervals. In respect of *consumers* in a stationary economy Wieser is more explicit but does not recognize an inconsistency with his earlier pronouncements repudiating any significant role for time preference:

consumption goods are available only as such and are useless for anything else. However, the latter may be turned over into consumption goods *more or less slowly*. The *more rapidly they are despatched*, the sooner will the new production process have to be set on foot. (Wieser 1914, p. 132, emphasis added)

His position on the existence of interest in a stationary economy would have been more defensible if he had given time preference a more central role. Instead, the order of his 'explanation' of interest makes productivity causal and primary; time discount is merely the resultant. Capital productivity, in other words, has exclusive influence on comparison of present and future gratifications. The burden of Wieser's *explanation* of interest therefore rests precariously on the existence of a technical net productivity of capital.²⁷

²⁷ All this relates to interest on productive capital. Interest on consumption loans cannot be *explained* by productivity as Wieser (1891, p. 116 1n) expressly recognizes. Wieser explains interest on consumption loans in *psychological* terms, comparing the needs of debtors with those of creditors.

Capital and the Trend of Interest in a Progressing Economy

In reading Wieser's work we find that the stationary and progressing economy form two separate, though not competing, stages of exposition. Fragmentary discussion of the progressing economy is evident at frequent points in *Natural Value*. It is more fully enunciated in *Social Economics*, a work recently dubbed "the definitive textbook of the Austrian School" for the early decades of the twentieth century (Streissler 1987, p. 921). In a dynamic "progressing social economy" discussed extensively in *Social Economics*, capital is both reproduced and augmented (Wieser 1914, p. 71).

In outlining the simple stationary economy in *Natural Value* and again in the early sections of *Social Economics* Wieser always appears to be ready to break out of the strong case theorizing which is required of him. First, his discussion of the physical productivity of capital shows acute awareness of the *varieties* of capital goods which complicate calculations of a return to capital *as a whole* even though such a return may be imagined in principle (Wieser 1889, p. 133). Second, competition will assist in generating movement toward a uniform, natural rate of interest across the economy, but institutional impediments often conspire against such an outcome. He exclaims, for example, that

the individualism of our present economic order distributes production among individual undertakings . . . yet at how many points do we find great gaps; how many dislocations through excessive accumulation of means of production at the wrong places; how often things go too quickly, how often not fast enough! (1889, p. 145)

Third, in circumstances of "private ownership" the money markets and capital goods markets are not always well-synchronized; under a "communistic regime" the central planner's calculation of a general interest rate may be easier in the absence of a private commercial money market (1889, p. 144). Private money markets are buffeted by alternating and irregular periods of "intensive activity" and of "quiescent business" such that commercial money rates of interest can exhibit a high variance in the short period, that is, "within a year" (Wieser 1914, p. 348). Time horizons and associated contractual obligations in the market for money credit destined for more permanent productive investment are much longer and substantially different from horizons which normally obtain in the market for consumption loans. Wieser is therefore driven to doubt the applicability of his Law of the Equalization of Price, and of interest equalization in particular, in the dynamic, progressing economy. He doubts the exis-

tence of a single loan interest rate which through the action of strong equilibrating forces, is adjusted into conformity with a common market rate of interest on all forms of income generating assets, broadly conceived. In the case of money and capital markets:

[e]ven with complete security of the loans, the *interests of the different groups are too diverse* as regards the period of the loan and a number of other conditions for a central market to form in which the law of the unity of price might prevail. (Wieser 1914, p. 304, emphasis added)

An undeniable implication here is Wieser's leaning toward the Marxian view that interest rates on money capital are determined temporarily and perhaps permanently by causes which are independent of what happens to the rate of interest on producer's capital.²⁸ As well, Wieser is also aware of Menger's view expounded in "Zur Theorie des Kapitals" (1888), which insists that the rate of interest on money markets, the yield on industrial capital, and the yield on other categories of income bearing assets "need separate explanation each according to its nature and its different origins. The problem of the return on property (*Vermögensertrag*) is, for practical purposes . . . in no way synonymous with the problem of interest" (Menger 1888, p. 181). Wieser's sympathy toward both the Marxian and Mengerian views places his theory of interest, especially in *Social Economics*, outside the typical marginalist tradition in economics which included Jevons and Walras and which recognized first, that money rates of interest could vary only temporarily from some natural rate, and second that the money rate was determined exclusively by the rate of return on various forms of producers' capital. *Per contra*, Wieser leaves the way open for the possibility of monetary influences on the latter. No longer can we be sure after reading relevant sections of *Social Economics* that a permanent change in the money market interest rate would affect costs of production in the same manner, and would ultimately amount to the same thing as, a permanent, equivalent change in the rate of interest (or profit) on producers' capital.²⁹

Wieser's Law of the Equalization of Price (*Gesetz des Priessaus gleiches*) is certainly an important analytical device in the *Ursprung* and in *Natural Value*. Streissler (1972, p. 438) interprets the law as "rather evocative of a process leading to equilibrium, not of equilibrium itself." The fact that Wieser jettisons his Law in respect of

²⁸Incidentally, Hilferding's *Das Finanzkapital* (2nd edition) is listed among Wieser's (1914, p. 238) references in the section on money and credit.

²⁹On the disjunction between "interest" and "profit" (or the rate of return on producers' capital) in the history of economic thought, see Panico (1987).

pricing in money and capital markets in the progressing economy context in *Social Economics*, adds further weight to the proposition that he *not* be classified as a typical, fledgling, equilibrium economist who wished generally to *determine* equilibrium price and analyze equilibrium positions. His affinity with Menger in this connection is more striking than has been recognized hitherto.³⁰

In *Natural Value* there are allusions to "solitary" instances of rises in interest on a particular form of capital input (perhaps because of a one-off invention but Wieser is not explicit), while the prevailing rate of interest remains unaltered on other capital goods. Furthermore, alterations in the prevailing rate may result from "changes in supply, in demand [and] in technique" (1889, pp. 147, 150). *Universally* adopted inventions, for example, "would cause a general rise in the net return to capital" *relative* to "those capitals which had no part in the effects of the invention" (1889, p. 150). In a progressing economy an increase in the amount of capital of the same kind as used before necessarily leads to a decline in the interest rate; a simultaneous increase in new varieties of "specific capital" will counterbalance this effect (1914, p. 140). Here Wieser is clearly aware of the fact that inventions and improvements are not introduced at one fell swoop. Wieser is noncommittal about the certainty and regularity of changes in the quality of capital; it is precisely this outlook which lends itself to an open-ended serial process analysis rather than equilibrium theorizing. Indeed, such a process comes to the fore in Wieser's distinction between interest on capital and entrepreneurial profit—the latter being positive only in the progressing economy (1914, pp. 355-56). For Wieser, profit is not to be confused with *regular* wages of management, although such wages form part of entrepreneurs' income. Economic progress requires rare skills—necessary for "a specific command of capital[;] . . . specific in its unique character or else in its magnitude." These skills return a profit so long as they have not become "common property." Entrepreneurs also secure a preferred market position of a specific character for their enterprise. In their superior leadership they were originally "pioneers of unusual ability and training, combining technical knowledge and capacity with market experience and organizing power" (1914, pp. 356, 357). Such power coupled with the "talent of economic leadership" often gets its return from capital gains on property; from audacious innovations; from promotion of joint stock companies and from various forms of "creative speculation" and arbitrage activity

³⁰For an account of Menger's departure from equilibrium economics in the strict sense, see Streissler (1972), Mirowski (1984, pp. 370-72) and Vaughn (1989).

which assist in the process of price *formation* (rather than full determination in a mathematical sense) in a progressing economy (1914, pp. 357-66).

In the case of diverse types of *fixed* capital where "instead of one single future return there are several returns," Wieser maintains that in the ideal stationary economy case these returns are determined by discounting using the uniform natural rate of interest determined in respect of circulating capital. However, Wieser leaves room for expectations and uncertainty. The complications introduced by "uncertainty [as to] . . . whether the returns expected will actually be received at all" made calculation of the value of fixed capital subject to some uniform interest rate, more difficult in the progressing economy. Insurance is mentioned as one way out of the dilemma, although Wieser does not indicate that such a device could be effective in all cases where uncertainty appears (1889, p. 152). In addition, vast aggregations of indivisible items of fixed capital ("mammoth capital") in a dynamic, advanced capitalist economy tend to thwart competitive pressures making for a natural, equilibrium rate of interest on the use of such capital (Wieser 1914, pp. 209-10).

The process of new capital formation in a progressing economy where there is widespread monetary calculation and exchange is represented in Wieser's work as a complex time consuming exercise "distributed over a large number of individuals" (1914, pp. 298, 299-303). It involves distinct capitalistic and entrepreneurial activities. In the first place, a supply of new savings has to be forthcoming although the *economic* mechanism to encourage savings such as an interest rate incentive, is not given much emphasis.³¹ Second, "money capitalists" advance money capital to consumers and to "speculating" capital-employing entrepreneurs. The latter, in advanced forms of capitalistic economic organization, may also assume the role of money capitalists. Entrepreneurs cannot usually employ productive capital until capital goods are purchased from capital-producing entrepreneurs, who in turn may also require money credit from money capitalists in order to make their enterprises into going concerns. In short, money and credit facilitate the accumulation of productive capital in Wieser's sense. Money and credit could also potentially prove an obstacle to capital accumulation depending on the conditions—including power relationships and state regulations—of trad-

³¹Ethical reasons for saving are instead brought to account, *viz.*, the "spirit of self denial" and "deprivation" (1914, p. 300). An interest rate factor is mentioned *en passant* much later (1914, p. 350).

ing on financial markets.³² There are rudiments here of a monetary theory of the rate of interest (or profit) on productive capital; it is merely a glimpse made apparent by Wieser's terminology. Finally, only when capital-employing entrepreneurs actually realize a (previously prospective) net gain from the use of productive capital can capital formation be said to have taken place (Wieser 1914, p. 299).

The long-run movement of *the* interest rate on capital in the progressing economy is not well charted in Wieser's analysis. Indubitably, he follows English and German classical economists in believing that the rate of interest displays a clear, downward secular trend.³³ In *Natural Value* he argues that the interest rate "rises from the beginning" and goes on "growing so long as the economic world thrives" (1889, p. 151). This is apparently contradicted in *Social Economics* where it is insisted that "[d]uring *the entire course* of economic development the trend of the rate of productive interest is downward" (emphasis added). Despite all technical progress, continues Wieser, "the increase of capital reduces its marginal yield" (1914, p. 348).³⁴ Wieser's meaning is hardly straightforward; the meaning lies between as much as within the lines. Successive increases of capital of the *same* quality would, it appears, lead to diminishing returns. Is this Wieser's likely meaning, otherwise technical progress could carry on indefinitely to keep up the trend of interest rates or at least keep the interest rate from falling? Textual interpretation is not assisted by another passing statement Wieser (1914, p. 357) makes implying that there is an intrinsic limit on investment opportunities in a progressing economy—a limit approached as productive capital becomes more abundant. Nowhere, incidentally, does Wieser suggest when remarking on the likelihood of a falling rate of interest in a progressing economy, that the interest rate would eventually fall to zero, and the possibility that a zero rate may be approached asymptotically is not broached (1889, p. 151; 1914, p. 348). At least partial reconciliation of Wieser's scattered statements on this matter rest on drawing a distinction (which he often does) between isolated "specific

³²Wieser's position is remarkably close to Menger's on this matter. Both appreciate the function of money as a mediator and potential obstacle to the trade in capital goods. See Menger (1936, p. 59). It is disappointing as Roll (1936, p. 456) correctly reports, that Menger's "description of the role of money in the capital market is . . . not as suggestive of further analysis as other parts" of Menger's work on money.

³³Cf. Schumpeter (1934), originally published in 1911, which is not mentioned in Wieser's (1914) references (e.g., 1914, p. 30) where it might have been expected. Schumpeter, by the way, labels the classical line of the secular trend of interest as a "dogma" (1934, p. 210).

³⁴Cf. also Wieser (1914, p. 350): "the rate of interest is lowered owing to the continuous increase of capital."

capital" investments incorporating particular inventions on the one hand, and "universally effective invention" or the most generally adopted technique on the other (1889, p. 150). The former are not sufficient to keep up the general interest rate, although individual entrepreneurs who first adopt a new technique would, for a while, reap the higher net profit return on specific capital investments. Wieser's distinction is probably due to his reading of Marx, to whom Wieser pays tribute in the *Ursprung* (1884). Streissler (1987, p. 921) notices that some of Wieser's "terminology" owes something to Marx; here we are suggesting that Wieser's general outlook on long run economic development presupposes a law of the falling rate of interest or profit which had classical and of course, Marxian connotations. Of these connotations Wieser was doubtless aware. He does not exaggerate the differences between his economic-theoretic innovations and those of his classical predecessors.³⁵ Wieser (1889, pp. 200ff) definitely aims to refute the labor theory of value and Marxian exploitation theory, although the refutation was nowhere near as successful and uncompromising as Böhm-Bawerk's well-known critique. And, of course, Wieser is a critic of Ricardian theory although it should be remembered that he uses *classical* differential theory to 'explain' returns to factors other than land in his analyses of "specific imputation" problems where factors had no alternative uses.

Wieser's Hybrid Capital and Interest Theory in Retrospect

On the occasion of the third edition of *History and Critique of Interest Theories*, Böhm-Bawerk (1914, pp. 411ff) pays obeisance to the "marked individuality" of Wieser's capital and interest theory although he is not prepared to accept its validity. Wieser (1914) appears to have remained impervious to Böhm-Bawerk's earlier criticisms, thus inciting Böhm-Bawerk (1914, p. 484 40n) to provide another critique. We have already mentioned Wieser's penchant to assume, implicitly, what he proposes to prove in attempting to *separate* a net return of capital from the net return attributable to other factors. Böhm-Bawerk (1914, p. 415) expresses this problem with Wieser's "proof" as follows:

It is true that a *net return of production* . . . is concededly present when the total gross return yielded by all three collaborating factors exceeds the value of the capital consumed. But a *net return of capital*

³⁵ As Wieser (1889, p. xxxiv) admits in respect of the German classical school: "in great part, the German school long ago formulated the conceptions, leaving for us only the task of filling them out. . . ."

is not present until the individual *aliquot share* which is attributed to capital out of the gross return exceeds the capital consumed. And the existence of the first condition, by very reason of the radical difference in the presuppositions, leaves absolutely no ground for inferring the existence of the second.

Böhm-Bawerk grants that Wieser's "general imputation" theory ascertains the portions contributed by the various factors to *gross* product. A theory of interest on capital must, by contrast, show the portion of *net* product contributed by the factor "capital." Wieser always maintains, by assumption, that capital in the stationary economy would not be employed if it did not produce net physical and value productivity. Such an assumption rests, in the final analysis, on introspective knowledge—on adequate *understanding* of producers' concrete *plans* which always include an "interest" category. Böhm-Bawerk (1914, p. 415) notices that Wieser may wish to fall back on this ground, *viz.*, the supposition that the economist "knows as a fact within our experience that the portion of the gross return attributable to capital exceeds the amount of capital consumed." On the demand side Wieser had already given much weight to the economist's casual, introspective knowledge in constructing and evaluating the theory of consumers' wants and diminishing marginal utility. However, in this connection, Böhm-Bawerk (1912, p. 430 81n) warns that Wieser appears "to go somewhat too far" in relying on the methods used by "psychological laymen." These methods, according to Böhm-Bawerk, Wieser uses as explanatory devices when the powers of pure psychology (*Wissenschaftliche*) and of pure economic theory provide a sounder basis for a proper scientific treatment. Böhm-Bawerk (1912, p. 195) had originally judged that Wieser meant only that the "training of universal experience" offered "relatively superficial facts" which economists needed to explain with *other* methods. Now he was no longer so sure of that judgment.

If Wieser's capital and interest theory cannot firmly be located in the Böhm-Bawerkian, 'Austrian' tradition then what were its doctrinal origins? An heirloom from von Thünen—a simple productivity theory of capital—is Wieser's explicit point of departure. Wieser's imputation theory, from which his theory of capital and interest is further developed, is motivated by lacunae in Menger's approach to imputation based on the "loss principle." Wieser values capital inputs assuming fixed coefficients while simultaneously capturing important aspects of interdependence between production processes and aspects of factor complementarity. Böhm-Bawerk, on the other hand, avoids explicit analysis of interdependence between production processes, instead reducing capital inputs to dated labor quantities. In

the theory of the *stationary economy*, Wieser (a) does not give coordinate rank and mutual influence as between technical productivity and time preference; (b) he conceives of the interest problem as connected only with produced means of production as did German classical economists; and (c) he systematically formulates by way of imputation theory, the specific productivity or productive contribution of each factor input—the productivity of capital, in particular, serving to ‘explain’ both the amount yielded by a group of capital goods and the rate of yield calculated on the valuation of the principal or capital substance. In respect of (a) he is at one with Menger but inconsistent with Böhm-Bawerk. Wieser’s orientation in both (b) and (c) earned the fervid denunciation of F. A. Fetter (1914), the Austro-American theorist and contemporary of Wieser who developed interest theory along pure time preference lines. As for (c), Wieser has many points in common with J.B. Clark (Fetter 1927, p. 272). Lastly, in considering the mixed origins and allegiances of Wieser’s capital and interest theory, our study would not be complete without investigating F.H. Knight’s (1950, p. 31) tribute to Wieser’s theory as being far “sounder” than other Austrian theories on the subject. First, for Knight, time preference plays no role in the determination of the rate of interest—a rate which in his view always remains positive since, conceptually, a zero limit could not be reached. Second, Knight argues that the ability of capital to yield services—its productivity—becomes the basis for interest, the rate of which is defined as the “anticipated productivity ratio” (Knight 1916, p. 298). Third, Knight (1934) also conceives of production as involving a collection of highly specific, complementary capital goods. These three facets of Knight’s capital and interest theory have much in common with Wieser’s, so it comes as no surprise that Knight liked Wieser’s theory.

It remains for us to draw attention to the place of Wieser’s capital and interest theory and certain other related components of his economic thought, in the early Austrian tradition. Noteworthy is Hennings’s (1986, p. 232) authoritative survey which makes out a case, first, for distinguishing Wieser and Böhm-Bawerk on the reasoning that Wieser places “less emphasis” on the temporal nature of production than Böhm-Bawerk.³⁶ Following our account of Wieser’s theory, this interpretation deserves qualification. Hennings’s claim is valid in relation to the stationary economy model; Wieser’s concept of stationariness implicitly excludes consideration of the effects of

³⁶Streissler and Weber (1973, p. 229) concur with Hennings insofar as they maintain that Wieser would not have liked Menger’s view of production as a time consuming, multi-stage process.

temporal integration of production processes in the Böhm-Bawerkian sense. In Wieser's stationary economy the Law of the Equalization of Price prevails and the separation of monetary from real variables is complete. However, close textual study reveals Wieser's impatience with attempts at explaining and refining the logic of the stationary case. He is led perforce to consider at length production in a progressing economy where temporal issues, indeed real historical changes, are pervasive.

Hennings's (1986, p. 237) second conclusion is that "Menger, Böhm-Bawerk and to a lesser extent Wieser, were much more concerned with disequilibrium processes" than early equilibrium economists who dealt with production theory. Again, this is not an accurate portrayal of Wieser's concerns relative to Menger's and Böhm-Bawerk's, especially if his *Social Economics* is given the studious attention it deserves. It should be remembered that *Social Economics* was Wieser's "last and ripest message on pure theory" (Schumpeter 1951, p. 300). Our explanation, which includes consideration of *Social Economics*, demonstrates Wieser's concern for everchanging production plans and uncovers his suggestive hints relating to the strategic influence of monetary factors on these plans in the progressing economy. We have seen how Wieser's capital and interest theory is a special hybrid, composed in other words, of mixed doctrinal elements, although on many fundamental points his work remains closer to Menger's than Böhm-Bawerk's. Wieser's avowed intention not to overgeneralize the interest concept suggests, like Menger, uneasiness with the notion of interest as a broad macroeconomic category. Very much like Menger, Wieser justifies a return to capital from its function as a unique cooperating element in production. While process analysis in the *Ursprung* and in *Natural Value* is diffuse and subdued, Wieser nevertheless makes some portentous digressions on such matters as the diversity of factor combinations; the tendency of factor combinations to change and on the general discontinuous nature of production functions. Furthermore, Wieser is not generally inclined to reason in terms of continuous, determinate schedules of demand and supply. In *Social Economics* Wieser's more generous allowance for disequilibrium processes *à la* Menger is exemplary.

It would be misleading to draw the comparisons between Wieser and Menger too favorably such that the former might be placed squarely in the Menger tradition. Nonetheless, the existing historical record has neglected points of theoretical convergence between these two leading 'first generation' Austrians. After all, Menger was not moved to make the charge of a 'great error' in regard to Wieser's construction of a capital and interest theory, as he was to do in

Böhm-Bawerk's case (Schumpeter 1954, p. 847n). Wieser not only remained loyal to Menger's subjective theory of value; he heeded Menger's fragmentary adumbrations for developing a coherent theory of capital and interest. Wieser subsequently produced a hybrid theory which revealed certain distinguishing characteristics inherited from Menger. These characteristics were particularly discernible, although not exclusively so, in the variant of Wieser's theory which applied to a progressing economy. Wieser's break from the Menger tradition was therefore neither as fundamental nor as decisive as Böhm-Bawerk's.

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New Classical and Old Austrian Economics: Equilibrium Business Cycle Theory in Perspective

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The recent flourishing of New Classical economics, and especially its Equilibrium Business Cycle Theory (EBCT), has given a fresh hearing to the Old—but still developing—Austrian Business Cycle Theory (ABCT). While the New and the Old differ radically in both substance and methods, they exhibit a certain formal congruency that has captured the attention of both schools. The formal similarities between EBCT and ABCT invites a point-by-point comparison, but the comparison itself dramatizes differences between the two views in a way that adds to the integrity and plausibility of the Austrian theory.

In modern macroeconomic literature, the label EBCT is applied sometimes so broadly as to include New Keynesian as well as New Classical constructions and sometimes so narrowly as to preclude the very developments within the New Classical school that are most closely related to ABCT. So-called Real Business Cycle Theory, in which cyclical movements of macroeconomic variables are characterized by both market clearing and Pareto optimality, is sometimes designated as the only true equilibrium construction. The comparison of New Classical and Old Austrian theories is best facilitated by letting EBCT refer to those theories in which (a) individuals make the best use of the information available to them and (b) an informational deficiency temporarily masks the interventions of the monetary authority. As expositied by Robert Lucas (1981), Robert Barro (1981) and others, EBCT so conceived accounts for business cycles in terms of the actions of market participants confronted with what has come to be known as a signal-extraction problem. Difficulties in

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interpreting price signals during a monetary expansion also lie at the root of ABCT as introduced by Ludwig von Mises (1953) and developed by Friedrich A. Hayek (1967).

Comparing Lucas's EBCT with Hayek's ABCT, R. W. van Zijp (1990) argues that Lucas is not a Hayekian on the grounds of the differing goals of the two theorists. Hayek sought to explain the business cycle in terms of a multitude of partially conflicting individual plans; Lucas seeks to predict the behavior of the "representative individual" during the course of the business cycle (p. 20). Kim Kyun (1988) provides an historical perspective by finding links between modern EBCT and business-cycle theories of the inter-war period. He concludes that the New Classical economists have so revolutionized the style of argument that their ability to challenge old views and deal with key issues is seriously restricted (pp. 112-14). William Butos (1985) assesses the claims that Hayek pioneered modern EBCT and finds them misleading. While Hayek took the equilibrium relationships established by price theory as the point of departure for his business-cycle theory, the technique-bound EBC theories take those same relationships to be effective constraints throughout the course of the business cycle (pp. 337 and 341). These treatments of the relationship between EBCT and ABCT are mutually reinforcing and are consistent with my own Austrian perspective on New Classicism (Garrison 1986, pp 443-45; 1989, pp. 19-23).

Substance and Method

It is possible to describe a business cycle in such general terms that the description is consistent with both EBCT and ABCT yet distinct from, say, Keynesian and Marxian theories. The common ground can most easily be identified in terms of the reactions of market participants to a price change whose origins are possibly real, possibly monetary, or possibly both. Similarities between EBCT and ABCT reveal themselves despite the fact that the particular price featured in the two theorists is the price of output (in EBCT) and the price of credit (in ABCT).¹ Points of congruency derive from the fact, emphasized in each theory, that market participants cannot easily (or costlessly) distinguish between the real and the monetary component of the change.

¹The difference in terms of the particular price featured in the two theories accounts for an anonymous referee's observation that in EBCT the cycle is initiated by a rise in the interest rate [in the sense of a greater spread between input and output prices], while in ABCT the cycle is initiated by a fall in the interest rate [in the sense of cheaper credit].

The appropriateness of the response to the price change clearly depends upon the origin, or cause, of the change. An alteration in the underlying economic realities requires accommodation in real terms; monetary manipulation does not. Until the true nature of the price change is known, market participants will respond, at least in part, as if its causes were real. If the price change is, in fact, purely of monetary origins, then market participants will eventually readjust their activities in recognition of the actual, and pre-existing, economic realities. Thus, both EBCT and ABCT allow for a certain non-trivial and systematic non-neutrality of money during the period the economy is adjusting to an increased money supply.²

If EBC models could be taken at face value, the substantive differences between these models and Austrian theory would be easy to identify. In their most basic formulations (e.g., Barro 1981, pp. 80-83; and Hayek 1967, pp. 69-100), the initial response by market participants takes the form of an increase in labor services in response to high nominal output prices (in the EBC model); of an inherently unsustainable capital restructuring in response to an artificially low interest rate (in ABC theory). The subsequent response takes the form of a reversion to the initial level of labor services (in the EBC model), of a time-consuming liquidation of malinvested capital (in ABC theory). If these differences were the essential ones separating EBCT and ABCT, then the two theories could rightly be viewed as variations on a theme. And there is even some overlap in the variations as evidenced by discussions in the Austrian literature (e.g., Hayek 1967 and 1975) of the misdirection of labor and by developments within New Classicism which incorporate a capital stock variable (e.g., Lucas 1981, p. 179ff) and even "time-to-build" considerations (Kydland and Prescott [1982], as discussed by Lucas [1987]). Seemingly, EBCT and ABCT have much common ground.

But EBC models are not to be taken at face value. An EBC model is not offered as a theoretical account of some actual or possible historical episode. Rather, EBCT is only a modeling technique designed to demonstrate that a model economy can exhibit cyclical

²Extending the comparison to encompass Monetarism would involve too great a detour. In general, the qualifier "non-trivial" distinguishes this general description from the Monetarist view, which characteristically trivializes all short-run monetary non-neutralities with the label "first-round effects." Otherwise, the Friedman-Phelps treatment of short-run and long-run Phillips curves identifies a market process similar to the ones identified by EBCT and ABCT. This similarity is the focus of Bellante and Garrison (1988). But for an argument that the Friedman-Phelps dynamics is not an integral part of Monetarism, see Garrison (1991).

patterns in macroeconomic variables without violating the constraints imposed by general equilibrium theory. Equilibrium conditions hold for the model economy throughout the course of the cycle. In the New Classical view, the constraint imposed by the logic of general equilibrium confers theoretical respectability on the model; econometric testing as suggested by exercising the model economy and performed on extended time-series data descriptive of the real-world economy establish the model's empirical relevance.

This New Classical technique is foreign to ABCT, which treats the business cycle as an instance of systematic intertemporal *disequilibrium*. In the Austrian formulation, the very language used to describe the course of the cycle is the language of disequilibrium: credit expansion suppresses the rate of interest below its natural level; the artificially low interest rate results in forced saving, which unduly restricts consumption; capital is malinvested; the boom is unsustainable; entrepreneurial errors are revealed in the inevitable bust. These notions cannot be described in the language of equilibrium without doing violence to their meaning.

Old and New Uses of Equilibrium

The Austrians, particularly Hayek, have made explicit but limited use of the concept of equilibrium in the exposition of their business-cycle theory. But, as van Zijp, Kim, and Butos have noted or implied, the limited use made does not qualify ABCT as a specific instance of EBCT. For the Austrians, the appropriate role for some suitable equilibrium construct is mandated by a self-evident methodological consideration: Any account of the origins of phenomena characteristic of business cycles, such as an uncoordinated capital structure, massive unemployment of labor, and other instances of widespread resource idleness, cannot assume those phenomena to exist at the beginning of the account. Theory, in short, is logically incapable of explaining what it assumes. Hayek (1948, p. 34) undoubtedly had Keynes in mind when he insisted that before we can even ask how things can go wrong, we need to understand how things could ever go right.

The very meaning of disequilibrium in the context of business-cycle theory derives from its being compared to some relevant equilibrium. That is, adopting a suitable equilibrium concept establishes the initial conditions and facilitates the analysis of an ensuing disequilibrium caused, say, by the central bank's cheap-credit policy. It allows our understanding of the particular kind of disequilibrium associated with the business cycle to be dovetailed with our understanding of the equilibrium that would have prevailed in the absence

of the monetary disturbance.

This essential but limited role for an equilibrium concept is not at all what the New Classical economists have in mind. For them (e.g., Lucas 1981, pp. 287 and *passim*), the concept of disequilibrium is of no use in understanding business cycles. The phrase “equilibrium theory” is pleonastic and means, simply, “theory”; “disequilibrium theory” is self-contradictory and can only mean “non-theory.” The methodological precept that underlies EBCT is that each phase of the business cycle can be understood as an equilibrium set of prices and quantities, or it cannot be understood at all.

The all-inclusiveness of the equilibrium concept in New Classicism warns against comparisons of EBCT and ABCT that ignore the radically different methodological contexts. For instance, the inevitable bust that figures importantly in ABCT cannot easily be translated into the language of EBCT. For the Austrians, “equilibrium bust” is a term at war with itself; for the New Classicists, “disequilibrium bust” can only mean an unexplainable downturn (cf. Lucas 1981, pp. 225 and 231).

The Evenly Rotating Economy and the Fully Articulated Artificial Economy

Criticism of even the limited use of equilibrium made by the Austrian theorists can help to assess the fruitfulness of “equilibrium theorizing” in each context. Cowen and Fink (1985) find a contradiction between ABCT and the assumed initial conditions that link business-cycle theory with established price theory. They base their case on the most thorough-going concept of equilibrium in the Austrian literature, the Evenly Rotating Economy (ERE) so designated by Mises (1966, pp. 244-50). The complete coordination of all economic activities, which defines the ERE, precludes disequilibrium of any sort. The ERE allows for no uncertainty and hence has no role for the real-world institutions that help market participants deal with uncertainty. Monetary institutions and even money itself are no part of the ERE—hence the contradiction between a theory of money-induced disequilibrium grafted onto a concept of moneyless general equilibrium.

All Cowen and Fink have shown, however, is that Mises’s ERE is not the appropriate equilibrium concept to serve as the initial conditions for ABCT. It is not necessary for the initial conditions to preclude *all* kinds of disequilibria but only to preclude systematic intertemporal disequilibrium—the kind of disequilibrium for which the theory itself accounts. This limited equilibrium construct complies fully with both the logic and the spirit of ABCT.

In view of the differing uses of equilibrium constructs in EBCT and in ABCT, contradictions of the sort identified by Cowen and Fink are much more telling against EBCT. The equilibrium construct that underlies both the initial conditions and all subsequent phases of the business cycle is a clear rival for the ERE in terms of its severity and other-worldliness. The cyclical variations that mimic the ups and downs in a real-world economy play themselves out in the context of a "Fully Articulated Artificial Economy" (FAAE), in which all markets continuously clear (as in Lucas 1981, pp. 271 and *passim*; and in Barro 1981, p. 81-83).

In order that full articulation be possible, the FAAE must assume away virtually all the features that give economics its subject matter. The FAAE disallows diversity among market participants in terms of knowledge and entrepreneurial ability. Output typically takes the form of a single service indistinguishable from the labor that renders it. The price system is non-existent except in the trivial sense of the ratio of output to leisure. And except in some similarly trivial sense, there is no role in the FAAE for a monetary institution or even for money itself. Yet, a monetary impulse is what triggers the cyclical variation of output and prices. Money is injected into an artificial economy that has no non-trivial use for money.³

Any attempt to articulate the process through which a hypothetical monetary injection affects output and prices in the artificial economy inevitably draws on our understanding of how actual monetary injections affect the real-world economy. The characteristic effects of an actual monetary injection derive largely from the nature and limitations of the price system. Broadly conceived, the price system serves as a communications network, but any individual price signal, by itself, may be ambiguous. This limitation in the ability of the price system to communicate real changes in economic conditions underlies monetary theory from Richard Cantillon to David Hume to Friedrich Hayek. Hayek's "The Use of Knowledge in Society," (in Hayek 1948) virtually redefines the economic problem as a communications problem inherent in a society in which knowledge is widely dispersed among market participants.

Specifically underlying EBCT is the fact that market participants

³Garrison (1989, p. 21) discusses what, in effect, is the Cowen-and-Fink contradiction in the context of Barro's back-scratching economy. Lucas (1987) attempts to "motivate the use of money" (p. 74) by introducing the concept of "cash goods," which—for reasons plausible enough to participants in the real-world economy—can be purchased only with cash.

have no timely and failsafe method of distinguishing between real and monetary components of a price change. But a FAAE in which there is no dispersion of knowledge and only one output has little need for communications and even less scope for ambiguity. The communications network exists, if at all, in its most degenerate form.

Scope for ambiguity of a price change is incorporated into EBC models by a technique originated by Edmund Phelps (1970, pp. 6-7). A global economy consists of numerous local, or island, economies, such that inter-island communication lags intra-island communication. Such models allow economic agents to observe price changes on their own island instantly and price changes on other islands belatedly. Ambiguity about the true meaning of price changes characterizes the period marked by the instantly perceived and the belatedly received price information.

Economic agents would react one way if a particular price change is attributable to monetary expansion, which is presumed to affect all islands equally, and another way if the change is attributable to underlying economic conditions, which is presumed to affect only the one island. But during the wait for the inter-island information, which will clarify the meaning of the local price change, economic agents must react in *some* way. Possible reactions during the period of partial information is constrained by the assumptions of optimizing behavior and continuous market clearing. The supposed behavior of the model's agents, however, depends upon whether the implicit reasoning has a supply or a demand orientation (Friedman 1978, p.76). That is, a supply-side adjustment plus assumed market clearing and a demand-side adjustment plus assumed market clearing imply different behavior and different outcomes. While the virtue of the FAAE is believed to lie in its being fully articulated, the behavior of its inhabitants varies substantially from one model to another and invariably leaves much to the imagination.

Difficulties in understanding why agents in the FAAE would use money at all are transformed into difficulties in understanding how (or why) these agents would react to monetary expansion. Accounts of their supposed behavior derive their plausibility from—rather than confer their plausibility upon—our understanding of the effects of monetary expansion in real-world economies. The FAAE, then, which contains just the sort of contradiction identified by Cowen and Fink, cannot help us understand the real world. Rather, it is the implicit and intuitive understanding of the effects of actual monetary expansions that has concealed the contradictory construction of the EBC models.

The Wicksell Connection

Except for Marxian theories, nearly all modern theories of the business cycle have essential elements that trace back to Knut Wicksell's turn-of-the-century writings on interest and prices. Austrians, New Classicists, Monetarists, and even Keynesians can legitimately claim a kinship on this basis. Accordingly, the recognition that both the Austrians and the New Classicists have a Swedish ancestry does not translate into a meaningful claim that the two schools are essentially similar. To the contrary, identifying their particular relationships to Wicksellian ideas, like comparing the two formally similar business-cycle theories themselves, reveals more differences than similarities.

Central to Wicksell's treatment of the relationship between prices and interest was the distinction between the natural rate of interest and bank rate of interest and the recognition that the bank rate can diverge from the natural rate. These are the ideas that directly influenced Mises and subsequent Austrian theorists. The institutional setting in which the interest rate reflects both the intertemporal preferences of market participants and the actions of policy makers, then, figures importantly in the Austrian account of the artificial boom and inevitable bust. Fritz Machlup (1976, p. 23) accurately summarized the Austrian view with the statement that "*monetary factors cause the cycle but real phenomena constitute it.*" But to establish the essential difference between the Austrians and the New Classicists, it needs to be added that the focus of the Austrian theory is on the actual market process that translates the monetary cause into the real phenomena and hence on the institutional setting in which this process plays itself out.

The New Classicists deliberately abstract from institutional considerations and specifically deny, on the basis of empirical evidence, that the interest rate plays a significant role in cyclical fluctuations (Lucas 1981, p. 237 15n). Thus, Wicksell's *Interest and Prices* is at best only half relevant to EBCT. More relevant, in establishing the Wicksell connection, is Ragnar Frisch's (1933) work on "impulse and propagation." This separation of issues in Frisch's writing formally parallels Machlup's characterization of the Austrian view, but the difference in the extent of the separation translates into a fundamental difference between EBCT and ABCT.

Frisch (1933, p. 198) took as his inspiration a metaphor that he attributed to Wicksell. Cyclical fluctuations in economic activity is mimicked by the motion of a child's rocking horse. The metaphor is intended to suggest that understanding the horse's rocking, or even

its propensity to rock, requires an analysis of its structure. Further, the questions "What sets the horse to rocking?" and "What are the structural parameters that underlie its rocking motion?" are completely separate. The impulse that causes the motion need not have any particular relationship to the activated propagation mechanism that constitutes the motion. Taking the Wicksellian metaphor as their cue, the New Classicists are led away from the pre-eminent Austrian concern about the actual market process that transforms cause into effect and towards the belief that a full specification of the economy's structure, which is possible only in the context of an artificial economy, can shed light on an effect whose nature is fundamentally independent of the cause.⁴

Dichotomizing the analysis as it relates either to questions about the impulse that initiates cyclical movements or to questions about the economic structure in which cyclical movements can occur has allowed for developments within New Classicism that transcend the traditional categories of business cycle theories. Theories traditionally categorized as "monetary" and "non-monetary" can now belong to the same category. Within the context of New Classicism, Real Business-Cycle Theory (RBCT) is distinguished mainly in terms of the nature of the impulse that is thought to set the economic structure into its cyclical motion. In RBCT, business cycles are initiated by real supply shocks rather than by monetary shocks. And while the hard-drawn version of RBCT's propagation mechanism (Long and Plosser 1983), assigns no role at all to money, more accommodating accounts (King and Plosser 1984) allow for money and credit to become involved through "reverse causation."

Dispute or agnosticism about the true nature of the impulse has only a minimal effect on the empirical research inspired by the monetary EBCT or the non-monetary RBCT. Lucas (1987, p. 70-71), for instance, favors the former over the latter on the basis of the comparison of the amplitude of cyclical fluctuations with the magnitude of nineteenth- and twentieth-century supply shocks. The fact that monetary considerations can be ruled in or ruled out on such grounds suggests that money and monetary institutions are not nearly so central to New Classical theory as they are to Wicksellian and Old Austrian theories.

⁴In his historical perspective Kim (1988) gives some play to Frisch and the rocking horse as a link between Wicksell and EBCT and argues that EBCT is a "child of the Cowles Commission method," which was the method pioneered by Frisch.

Broadly Historical or Narrowly Empirical Analysis

Fundamental differences between the process analysis of ABCT and the structural analysis of EBCT imply corresponding differences in the respective historical, or empirical, treatments of cyclical fluctuations. The Austrian theory finds empirical expression in actual historical episodes in which a credit-driven boom is followed by an economywide bust. The policies of the Federal Reserve System during the 1920s in the light of the subsequent crash in 1929, for example, provide primary raw materials for an historical study. The theory establishes the causal connection between the boom and the bust and explains many of the features of both, such as the movements of capital-goods prices relative to consumer-goods prices during the boom, the high real interest rate immediately preceding the bust, and the disproportionately low value of long-term capital goods during the depression.

In the spirit of Mises (1969), theory and history are shown to yield complementary accounts of a particular instance of boom and bust, an instance that is understood to have occurred independent of our theoretical understanding of it. And the process analysis that provides the theoretical understanding requires, as its empirical complement, an economic history that gives full play to monetary institutions, policy goals, and beliefs held by opinion makers, public officials and key Federal Reserve operatives, as well as to the more narrowly conceived macroeconomic data.

The structural approach of EBCT leads to a fundamentally different kind of empirical research. Wicksell's rocking horse can help to explain. The motion of the rocking horse can be understood and predicted exclusively on the basis of knowledge of its structure. And in principle, as applied literally to a rocking horse, knowledge of the structure can be acquired without the horse rocking at all. Values of a few structural parameters, such as weight, center of gravity, and curvature of the runners, are enough to fully specify the parameters of the horse's motion.

Structural properties of the economy, however, cannot be measured independently of relative movements of economic variables. But the relative movements needed for the identification of the economic structure need not be movements that any contemporary historian has identified as a boom-bust cycle in the sense of ABCT. All that is required is that there be enough variation in the independent variables to allow for statistically significant estimates of the system's parametric values. In other words, the metaphorical rocking

horse cannot be observed directly by econometricians. Available data consist only of the points of contact between runners and floor. Thus, inferring the structure from the data requires that there be some movement in these points of contact.

Since the needed variation in the independent variables falls as the sample size increases, the prospects for identifying the economic structure increase with the length of the period that serves as the basis for the empirical research. The typical data base used is the time series of macroeconomic variables from the end of World War II to the latest quarter for which data are available. Parameter estimates, then, are based upon data for the entire period whether or not the constituent sub-periods were part of a noticeable or a not-so-noticeable cyclical episode. Revealingly, the most noticeable of all cyclical episodes, the Great Depression, is viewed by New Classicists as an outlier that defies explanation by existing economic analysis (Lucas 1981, p. 284).

Contrasting examples of Austrian-based historical research and New Classicist-based empirical research are easily identified. Lionel Robbins's *The Great Depression* (1934) and Murray Rothbard's *America's Great Depression* (1975) clearly exemplify the analysis of a particular historical episode as the empirical counterpart of ABCT. The econometric testing of hypotheses consistent with EBCT is exemplified by Robert Barro's "Unanticipated Money Growth and Economic Activity in the United States" (in Barro 1981) and Thomas Sargent's "A Classical Model for the United States" (1976), both of which test an extended time series for relative movements in macroeconomic variables thought to be characteristic of cyclical activity. An interesting hybrid is Charles Wainhouse's "Empirical Evidence for Hayek's Theory of Economic Fluctuations," in which a number of hypotheses derived from ABCT are tested on the basis of monthly data for the period January 1959 through June 1981. There seems to be no hybrid of the other sort, in which EBCT is shown to illuminate some historical account of a particular cyclical episode.

Concluding Remarks

EBCT in its Lucas and Barro formulations and ABCT as spelled out by Mises and Hayek have a certain formal similarity. The two theories both owe something—though something different—to Knut Wicksell. Policy implications of the two theories, not discussed in this article, are clearly similar. Yet, in terms of the well recognized methodological distinctions that separate the Austrian school from the modern orthodoxy, EBCT and ABCT are worlds apart. Theorists who are more at home with ABCT than with EBCT will do well, though, to monitor

developments of EBCT. These New Classical models continue to provide a forum for Old Austrian ideas.

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Review Essay

Marxism, Capitalism and Mercantilism

David Osterfeld*

Traders Versus the State: Anthropological Approaches to Unofficial Economics, by Gracia Clark (Boulder, Colo.: Westview Press, 1988).

T*raders Versus the State: Anthropological Approaches to Unofficial Economics* is at once both a frustrating book to read and a fascinating book to review. One might suppose from its title that the book deals with conflict between government officials on the one hand and those engaged in trading or merchandising on the other. And one might suppose from reading the subtitle that the book focuses on the activities of those in the “black” or “informal” markets. The book, however, does not deal with trade or traders, as such, but with the activities of the small-scale street vendor. Nor is its focus solely on the “illegal” or “black market” or “informal sector” activities. Several of the articles deal specifically with the activities of “licensed street vendors.” The meaning of “unofficial” is made clear in the introductory chapter by Gracia Clark.

The purpose of the book is to analyze the “petty commodity mode of production.” The term “traders” is restricted to those engaged in small-scale production and commerce, in particular the street vendors; the term “unofficial” means those economic activities that pose a threat to the position of the more established, capital-intensive middle- and upper-class merchants. The activities of the “petty commodity traders” jeopardize the established positions of the “capitalists” or “bourgeoisie.” Since the latter tend to control the state, they are able not only to defend their own position by using the coercive arm of the state to regulate and control the activities of the petty traders but, according to Johanna Lessinger (p. 141), they are even

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able to enhance their positions by using the state to "appropriate the often sizeable patches of real estate on which existing markets are located," thereby facilitating "the process of capitalist development." Thus, she concludes, "the process of capitalist development has a very direct role in accentuating class differences," as the bourgeoisie continually solidify and improve their positions at the expense of the poor, whose position deteriorates over time. The origins and growth of "petty commerce" is traceable, according to Florence Babb (p. 30), "to the contradictory, and uneven development of capitalism. . . ." In short, the real enemies of the "traders," who are actually small scale street vendors, is not so much the state but the "bourgeoisie" who control the state and use it for their own purposes. *Traders Versus the State* would be more accurately entitled: *Street Vendors Versus the Middle Class Merchants*. A more appropriate subtitle would be: *A Marxist Viewpoint*.

The lengths to which one can go in order to blame all evils on "capitalism" is illustrated in the article on the "Informal Trade Sector in Tanzania" by Donna Kerner. Kerner notes that President Julius Nyerere committed Tanzania to a policy of "socialist development" as early as 1967, required peasants to market their food crops through "parastatal crop authorities," i.e., state-run marketing boards; introduced a policy of massive price controls; and nationalized the banks and nearly all businesses and labor unions. These policies resulted in massive shortages and extensive black market activities.

The government responded to the economic crisis by mandating that "every able-bodied citizen" be "engaged in productive labor," and defining "labor" so as to exclude traders or "intermediaries." It then began a massive campaign of arresting "jobless loiterers" and sending them to work on government-owned plantations. Within three months well over 15,000 "random arrests" had been made. This only aggravated the shortages, making the economic crisis more severe.

The government responded to the extensive black-market activities by introducing a program known as "The War Against Economic Sabotage." The program mobilized the police and military to arrest nearly everyone engaged in trade as an "enemy of socialism." Eventually, with economic output below 50%, many essential items completely disappearing, and the country on the brink of massive starvation, Tanzania, under pressure from the World Bank and the IMF, abandoned many of its interventionist policies. The result, according to Kerner, is that "recent reports indicate that imported and local goods now flood the government stores." Yet, astonishingly, the Tanzanian tragedy is blamed not on Nyerere's commitment to socialism; nor is it blamed on the interventionist measures designed to elimi-

nate private trading. It is blamed on *capitalism*! Tanzania exists on “the periphery of international capitalism,” she says, and what took place in that country represents “a distorted form of capitalism.”

The Marxist jargon that permeates most of the articles in *Traders Versus the State* is irritating, as is the Leninist penchant for referring to any multinational corporation such as Purina or Nestle as a “monopoly.” (Although the two notable exceptions are the superb articles on the economics and strategies of street hawking in Hong Kong by Josephine and Alan Smart. The articles deal with such things as the use of roof-top spotters, armed with walkie-talkies, to provide hawkers with a sort of early-warning system when the police are approaching. The articles, it should be noted, are devoid of ideological terminology.) But in order to understand the book’s significance it is first necessary to clarify two distinct approaches or “paradigms” to political economy: the Marxist and the classical liberal.

Marxism, Liberalism and Power

Nearly all the articles in *Traders Versus the State* are based on the Marxist paradigm. There are numerous references to class conflict and the contradictions of capitalism. Economics is viewed as a system of power relations, or as a zero-sum game, in which one person’s gain is offset by another’s loss. Since both the market and the state are tools which are used by the wealthy elite to protect and enhance their own privileged positions by oppressing and exploiting the poorer, working class, there is no need to distinguish between them. The market no less than the state is an institution infused with power relationships.

This, of course, is in direct contrast to the liberal paradigm in which power relations simply do not exist on the market. The market is nothing more than the nexus of voluntary exchange. And precisely because it is voluntary, any exchange must therefore be to the mutual benefit of all parties concerned; if this were not the case, then the exchange would not be consummated. Thus, for the liberal, exchange is a positive-sum process.

Capitalism and Mercantilism

But these two outlooks are not as incompatible as they may appear at first. For the liberal free trade is positive-sum, but coerced trade is not. While the market is a purely voluntary institution, it is in the state—the apparatus of compulsion and control—that power is concentrated. This means that the distinction between the market and the state, far from being meaningless as it is for the Marxist, is, for the liberal, fundamental. Since the Marxist views both the market

and the state as nothing more than alternative methods by which the ruling class is able to dominate and exploit the rest of society, he is unable to distinguish between the market process itself, and the effect of government restrictions on the market. And this, in turn, means that the Marxist cannot distinguish between what is commonly referred to as capitalism, or a system of free trade, and mercantilism, or a system in which the operation of the market is impeded by extensive government restrictions for the benefit of the ruling group. It is important to realize that it is not simply that the Marxist does not distinguish between capitalism and mercantilism. It is that the Marxist paradigm quite literally renders him *incapable* of making such a distinction. As Robert Schenk (1986, p. 676) has put it:

At the center of neoclassical analysis is mutually advantageous exchange. At the center of radical [Marxist] analysis are power relationships in the form of class conflicts. Any framework or paradigm focuses attention on certain features of the subject under investigation. Imperialism, exploitation and alienation flow readily from a framework emphasizing power. . . . To extend the framework of power relationships into socialism would deny the essence of what radicals want to achieve with socialism—a society without power relationships. . . . [But] if a theory of socialism is based on a framework other than power relations, another problem will arise. Trying to integrate such a theory with the core of radical analysis could force changes in the original paradigm. For example, the radical literature has rejected theories of market socialism because they need the concept of voluntary exchange, and voluntary exchange does not fit well with radical analysis.

In contrast, the strength of the liberal paradigm lies in precisely its ability to provide an analytical distinction between voluntarism and power, market, and government. This distinction has been at the center of liberal thought from its very inception. Adam Smith, for example, wrote his massive *Wealth of Nations* specifically to refute the doctrine of mercantilism. Smith argues that under mercantilism monopolistic privileges were granted to a few favored firms, permitting them to sell at exorbitant prices, while tariffs were enacted to keep out foreign competitors. But if a nation were to eliminate imports it would need to have its own exclusive colonies in order to obtain raw materials. The power of the state, of course, was ideally suited to carve out and police the resulting colonial system. Smith charged that the mercantilist system not only hurt those in the colonies but the workers in the mother country as well. Its only beneficiaries, he says, were “the rich and powerful.” Permitting the

colonists to buy only from merchants in the mother country enabled those merchants to sell at monopoly prices in the colonies. The colonists, therefore, were unable to pay for the administration of colonial government as well, so the workers in the home-country were heavily taxed to defray this cost, thereby perpetuating the profits of the state-favored merchants. The effect of mercantilism, said Smith, was that "the interest of one little order of men in one country" was promoted at the expense of "the interests of all other orders of men in that country and of all other orders of men in all other countries" (Smith 1776, p. 578). What Smith urged was the replacement of mercantilism by free trade. This, of course, would logically entail the abandonment of the entire colonial empire and Smith did not shrink from drawing that conclusion.

One finds similar statements in the writings of other early liberal thinkers including J. B. Say, Charles Comte, and Charles Donoyer in France (Weinberg 1978; Liggio 1977), John Trenchard and Thomas Gordon (1965; this is the first reprinting of the *Cato Papers* since 1755), and Richard Cobden and John Bright (Read 1968) in England, and William Leggett and the Locofocos (Leggett 1984; Dorfman 1946, pp. 652-61; Hofstadter 1948, pp. 45-62) as well as the quasi-liberal, John C. Calhoun (1953; see also Hofstadter 1948, pp. 68-92) in America, to name but a few. Moreover, the distinction between market and government, between voluntarism and power, has remained at the core of liberal thought down to the present. For example, Ludwig von Mises has written (1978, pp. 3-4) that:

Our age is full of serious conflicts of economic interests. But these conflicts are not inherent in the operation of the unhampered capitalist economy. They are the necessary outcome of government policies interfering with the operation of the market . . . They are brought about by the fact that mankind has gone back to group privileges and thereby to a new caste system.

While Mises sees peace as the necessary precondition for free trade, mercantilism, he says tersely, is "the philosophy of war." Similarly, Murray Rothbard (1970, pp. 194-96) draws a sharp contrast between the market principle, personified by individual freedom, mutual harmony and peace, and the state, or "the hegemonic principle," characterized by "coercion," the "benefit of one group at the expense of another," "caste conflict," and "war." Similarly, Milton Friedman is fond of drawing attention to the fact that while such policies as tariffs are "pro-business," they are "anti-free trade."

The inability of the Marxist paradigm to distinguish between capitalism and mercantilism has resulted in an unfortunate termino-

logical confusion which has meant that classical liberals and Marxists have often talked past one another when they were, in fact, in substantial agreement, at least on certain key issues regarding the state, such as its role in generating class conflict and turning trade into a situation in which one group benefits at the expense of another. This is precisely the case with *Traders Versus the State*. What the authors of *Traders Versus the State* condemn as "capitalism" is nearly identical to what liberals criticize as "mercantilism."

Interventionism and Social Conflict

The problem, so graphically underscored in *Traders Versus the State*, is that in today's world, trade, especially in the Third World, is seldom free. The significance of *Traders Versus the State* is to show that in those societies in which the economy is highly politicized, where what one gets is determined largely if not solely by the state, one cannot say that "I am going to live my life in this way and allow others to live their lives in their own way." Rather, one must say that "In order to live my life in this way I must first get control of the state and impose my lifestyle on everyone else." As a result, control of the state becomes a prerequisite for obtaining any of one's goals. The result is that what would otherwise be handled by peaceful cooperation between individuals is transformed into bitter conflict between groups for control of the state. What would otherwise be handled through the mechanism of voluntary exchange for mutual benefit is turned into coerced exchange in which one individual or group benefits itself at the expense of everyone else.

A vital question is who is likely to get control of the state? As the articles by Florence Babb on Peru and Barbara Lessinger on India make clear, it is the wealthy merchants, or "capitalists," who are often in a position to use their wealth to gain control of the state. But it is here that the distinction between capitalism as an economic system and the actions of the so-called "capitalists" is fundamental. The "capitalists" have little interest in free trade, as such; their goal is to make money. In fact, it is because the never-ending threat of competition on the free market renders their position perpetually insecure that the "capitalists" strive to control the state. Put differently, far from the market being an institution of power on a par with the state, as the Marxists believe, the only reason the "capitalists" seek to control the state is precisely because the vaunted notion of "market power" or "economic domination" simply does not exist on the unhampered market. Thus, it is only through control of the state that the "capitalists" are able to control access to the market, thereby institutionalizing their economic positions.

But, perhaps ironically, *Traders Versus the State* also shows that the state may, and has, been dominated by a very different group. This group despises trading not for pragmatic but for ideological reasons, viz., because of its commitment to socialism or communism. Traders are seen as useless intermediaries and trade as exploitation which must be stamped out. The extent to which the war against trading will be taken by its ideological enemies—including the demolition of markets and the beating and even killing of the traders—is graphically documented in the articles by Donna Kerner on Tanzania and Gracia Clark on Ghana.

Conclusion

Two things come through crystal clear in *Traders Versus the State*. The first is that regardless of whether the state is controlled by the wealthy capitalists or the ideological socialists, the result of government economic intervention is the same: massive shortages, extensive black-market activities and social conflict. As Clark says of the situation in Ghana, “price controls brought chaos” (p. 63). The second is that when the controls are lifted all three of the problems are reduced in intensity or even relieved altogether. As Babb has observed, with “the elimination of many price controls” in Tanzania, “goods now flood the government shops” (p. 51). These are certainly astonishing conclusions for a book written largely from a Marxist perspective.

In the final analysis, the authors’ candid acknowledgement of the indispensable role of the free market says far more about the intellectual bankruptcy of Marxian economics than a dozen books on that topic.

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Book Reviews

Discovery, Capitalism, and Distributive Justice.
By Israel M. Kirzner. New York: Basil
Blackwell, 1989.

Israel Kirzner is a name familiar to all readers of the *Review of Austrian Economics*. Kirzner's association with Austrian economics began with the inception of his long and distinguished career. He attended Ludwig von Mises's seminar at New York University for many years and received his doctorate under the aegis of the great Austrian. His thesis concerns the history of doctrine, and another of his works is a textbook on price theory. But the bulk of Kirzner's career has centered around entrepreneurship. His books and articles on the entrepreneur have secured his standing as the leading Austrian authority in this area.

A dominant theme runs through Kirzner's many contributions on his chosen topic. The entrepreneur, as Kirzner sees matters, is engaged in a process of discovery. He does not combine resources that already exist to produce goods whose patterns everyone knows. If he did, the existence of profit would be mysterious. Instead, he brings new resources into existence. Further, the class of entrepreneurs must not be confined to a relatively narrow group of businessmen. Kirzner regards the need for entrepreneurship as universal. Everyone must constantly adjust to unpredictable circumstances in an ever-changing world.

With the details of Kirzner's view of the entrepreneur, and his account of the market as a selective agent, we are not primarily concerned here. Though much of *Discovery, Capitalism, and Distributive Justice* is devoted to an account of precisely the topics just mentioned, the book's key theme (discovery?) lies elsewhere. Kirzner believes that his approach to entrepreneurship can be used to help resolve the much-debated issue of distributive justice.

Kirzner advocates what he terms the “finders-keepers” principle. If someone picks up an unowned sea shell at the beach, does he not become its owner (p.69)? After all, he found it: even if other people admire the shell and wish it were theirs, the discoverer has been first in the field.

One might initially object to Kirzner that “finders-keepers” covers only the exceptional case—does it apply to anything besides small objects that stand ripe for the picking? Kirzner emphatically disagrees, and it is here that his view of the entrepreneur enters the scene. Someone who devises a new use for a good or service has in effect brought that good into existence. Kirzner of course does not ascribe to human beings the divine prerogative of creating matter out of nothing. Rather, he holds that someone who discovers a new use for a resource has brought the resource (not the matter of which it is composed) into being. Until someone realized that oil can be used as fuel, it had not begun to exist. The fact that it lay in the ground for untold thousands of years before its economic “creation” counts for nothing.

Kirzner uses this view of economic creation to extend the finders-keepers rule. Far from applying only to the odd object that someone picks up, the principle has near universal application. Whenever someone thinks of a new use for something, he has created an economic good. Finders-keepers applies and he owns what he has made.

Kirzner does not claim that his extension of finders-keepers suffices for a complete account of property rights. Quite the contrary, he thinks of it as a supplement to property rights accounts based on self-ownership, such as the theories of Murray Rothbard and Robert Nozick. It is, however, a supplement that threatens to devour the views it has been devised to aid.

Before turning to Kirzner’s application of finders-keepers to natural rights, a preliminary task of analysis confronts us. How strong is the case for Kirzner’s principle? To begin with the ordinary version of finders-keepers, before Kirzner extends it through his doctrine of resource creation, a crucial ambiguity lies at hand.

Someone who first picks up a stray object usually is recognized as its owner: so far, so good. But is this just a rule-of-thumb that applies only within a theory of property which has been constructed on other grounds, or does it apply whenever an unowned object is discovered? On the first alternative, finders-keepers is simply a summary of certain rules within a legal code. A rule might, for example, provide that if one discovers a wallet whose owner cannot be identified, one must first report the incident to the police. If no one claims it within a month’s time, the finder owns it. This procedure is

simply an artifact of a particular legal system. Other legal codes might well handle the situation in a different way, e.g., by using lost property to reduce the tax burden.

On the second alternative, which Kirzner clearly favors, matters look different. Here, any object that someone first acquires becomes his. Finders-keepers is here not a mere addendum to a legal system but the sum and substance of the law code. If this is what Kirzner has in mind, in what sense has he arrived at an alternative to the standard Lockean account? As contemporary Lockean theories conceive of things, land and natural resources start unowned: the first person to meet the requirement of the principle of initial acquisition becomes the owner of what he has taken. Kirzner's finders-keepers doctrine, taken this way, just is a version of Lockean property rights.

I do not regard this as an objection to Kirzner, since the Lockean account seems to me correct. But Kirzner presents finders-keepers as an important supplement to the Lockean account, not a restatement of it. Although himself attracted to the Lockean view, he thinks that many people have moral intuitions that prevent them from fully accepting this doctrine. He notes, for example, that some people will refuse to accept exchanges based on wrong information as fully voluntary. People who take this position will reject the moral Nozick draws from his Wilt Chamberlain example. They will not agree that all bargains that begin from a just starting point preserve justice. They will instead wish to impose much more rigid requirements for voluntary exchange than libertarians have in mind.

Kirzner believes that finders-keepers enables advocates of a libertarian system to avoid a direct confrontation with these non-libertarian intuitions. Since nearly everyone accepts the finders-keepers rule, no direct challenge to moral intuitions need take place.

But this requires that finders-keepers be a different principle from a Lockean rule of acquisition. Otherwise, he would have no other reply than garden-variety Lockeans do to the moral intuitions he wishes to circumvent. What then is the difference between finders-keepers and other Lockean accounts? If finders-keepers is taken in a way sufficiently broad to have critical bite, I cannot see that it counts as anything but a variant of Lockean property-rights theory. Kirzner's obvious reply is to move between the horns of my dilemma. He might claim that finders-keepers has moral force independent of particular legal systems. At the same time, the principle is not a full-fledged theory of justice. I shall address this reply at a later point.

Kirzner might also reply that this objection misses the crucial

point. On his view, the creator of a new use for a resource brings the good into existence. This position does not feature in the standard Lockean presentations. Here lies the key to the mystery: once the creativity of the entrepreneurial discover is taken to heart, the true power of finders-keepers stands apparent. The structure of Kirzner's argument can be set out like this: (1) practically everyone acknowledges the finders-keepers rule; (2) the scope of the rule is far-reaching, because the discoverer of a new use for a resource creates the resource; (3) the finders-keepers rule resolves issues of distributive justice in a way Lockeans will favor, but without relying on controversial moral assumptions. The sketch of the argument I have just presented does not purport to be a rigorous deduction. I have devised numbered premises simply for convenience.

This argument is less than fully convincing, although its force cannot be dismissed. If people come to realize that finders-keepers has much greater scope than they at first imagined, it does not follow that they will accept the new, extended finders-keepers rule. They may instead think that the principle calls for a more precise and limited statement than they had initially thought necessary. Kirzner appears to think that someone who has non-libertarian intuitions will reason in this way: "Market exchanges are often not fully voluntary. How can Nozick and his friends fail to see so obvious a point? But what's this? There are Kirznerian entrepreneurs present in every exchange. Finders-keepers! Now my non-libertarian intuitions have been shown up as the illusions they are."

Perhaps some people will reason in this way; but it is not apparent why they must. If some people's non-libertarian views about voluntary exchange override the strength of ordinary Lockean property rights, why will bringing in finders-keepers change matters? These people may still hold to their original opposition to the free market.

Kirzner's argument is however not without merit. Non-libertarians who feel the force of his finders-keepers rule will face a challenge to their views. It is because Kirzner believes that his principle has overwhelming intuitive plausibility that he believes that its acknowledgement will overcome anticapitalist qualms. The crucial question then becomes: exactly how plausible is Kirzner's principle?

As I have already suggested, analysis of finders-keepers should follow a twofold path. First, the ordinary-language sense of finders-keepers is just a rule-of-thumb about how to handle lost objects. Though here I have little to oppose to Kirzner's intuitions than my own contrary ones, finders-keepers as usually taken seems no great shakes. If a dime drops out of someone's pocket without his noticing it, perhaps the person who finds it becomes its new owner (p. 151).

But suppose a wallet containing \$10,000 and a number of credit cards falls from the same pocket. Will most people say that anyone who finds it becomes its new owner? I hardly think so. And in cases where people do accept finders-keepers, how do we know that it has moral force independent of particular legal systems? If a legal system used other rules for dealing with lost objects, is it obvious that we would think these morally wrong?

But once more I may be accused of failing to grasp the essence of Kirzner's case. It is not just ordinary-language finders-keepers that he favors, but finders-keepers combined with his view of the discoverer as creator. Exactly at this point, I fear, lies one of my two most radical dissents from Kirzner's provocative analysis. It is not at all evident to me that someone who thinks of a new use for a resource does in fact own it. (I am at this point not challenging Kirzner's position that the entrepreneur creates new resources: I am instead questioning the implications about ownership which he draws from his view.) Does the first person who thought of commercial television own all subsequent television sets? How much money is the fortunate heir of the inventor of the wheel entitled to receive? If Kirzner protests that he wishes his principle of creativity to be more directly tied to physical production than my examples presuppose, what in his finders-keepers principle justifies this restriction?

Suppose however that we place to one side any unusual examples. Let us assume that Kirzner's theory resembles other libertarian accounts of the items it picks out as subject to ownership. Kirzner states: "I do not really wish to say that the first discoverer of a resource should be declared its just owner even if he did not raise a finger to take possession of what he has found or discovered" (p. 172). Regardless, then, of whether Kirzner's discovery principle justifies this restriction, no further cases will be presented that ignore it.

We are at last in a position to treat the decisive point. Is it in fact obvious that creators ought to own what they have made? In Kirzner's doctrine, an inventor seems, if anyone is, to be entitled to own what his ingenuity has devised (see pp. 158-59). But do people regard it as morally outrageous that inventors receive only limited patents? In point of fact, this issue of inventors' rights is a much-disputed one. Though I find plausible Rothbard's opposition to patents, the point here is not whether Rothbard, Kirzner, or some other scholar holds the correct view of the issue. Rather, the existence of moral dispute is what to my mind Kirzner has neglected. He thinks that once people realize the creativity of the entrepreneur, they will accept his finders-keepers principle. They will do so even if they have certain moral

intuitions of an anti-libertarian sort. But it is just false that everyone recognizes the intuitive force of Kirzner's principle. Even if he is right, he is not obviously right.

There is a connected issue where I find myself at odds with Kirzner. He seems entirely right to emphasize that without creative persons, little or no production can occur. How does it follow from this, though, that the entrepreneur brings into existence the use of a resource? Kirzner's argument confuses a necessary with a sufficient condition. Until someone had the idea of using oil for fuel, oil did not exist as fuel: equally, however, the idea without its physical embodiment does not suffice. Both are necessary. Kirzner's fallacy is analogous to the Marxist claim that labor is the source of value, since labor is almost always needed to create an economic good.

If this point is correct, then the extension Kirzner wishes to make from ordinary-language finders-keepers to his own comprehensive version lacks a basis. Even if Kirzner is right that first finders of objects acquire them, finders-keepers will not directly apply to those who devise new uses for things. These people have not brought anything besides their own ideas into existence: they cannot then claim to own physical assets on the ground that they have created them.

The objections raised above do not, if successful, throw finders-keepers entirely out of court. To the extent one finds the principle intuitively plausible, it can provide a useful supplement to Lockean theories of property. Kirzner has in my view radically overestimated the scope and power of finders-keepers; but his insightful and provocative analysis is an important contribution to the theory of distributive justice.

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More Heat Than Light: Economics as Social Physics, Physics as Nature's Economics. By Philip Mirowski. Cambridge: Cambridge University Press, 1989.

Few books on the history of economics begin with a discussion of physics, but Mirowski's brilliant work is no ordinary book. He contends that economics, culminating in the currently dominant neoclassical school, has throughout its history been controlled by a metaphor. Most economists regard their discipline as a science; since, in the common understanding, physics is the best developed of the sciences, economics ought to be modeled on physics. Mirowski's radical thesis is that the model of physics has determined in detail the sum and substance of economic theory from the Physiocrats down to the present.

Mirowski has an even more ambitious goal than the presentation of his revolutionary view of economics. He writes not as a detached observer but as a vigorous partisan. He strongly opposes the control of economics by physics. Economists, in pursuit of their futile ideal of rigor, have misunderstood physics and generated "science, falsely so-called." Mirowski himself has enlisted in the institutionalist camp, but his own views of correct theory do not receive much discussion in *More Heat Than Light*.¹ He comes not to praise neoclassicism, but to bury it.

Mirowski contends that conservation principles are the *leitmotif* in the growth of modern physics. Very roughly, a conservation principle requires that some quantity, e.g., mass or energy, be kept constant in a given system. To take a case often used by nineteenth-century physicists, a perpetual motion machine disobeys the law of

¹His institutionalism is discussed in more detail in his *Against Mechanism: Protecting Economics from Science* (Totowa: Rowman & Littlefield, 1988), esp. pp. 57-93, 106-33, and 191-232.

energy conservation since it requires new energy to be generated out of nothing.

Mirowski once more writes not as a mere observer of the scene. He thinks that physics has placed undue reliance on conservation laws. They cannot be exactly stated; and the proofs of the laws, e.g., the impossibility of perpetual motion, rest more on assertion than argument. Even more importantly, a look at the history of physics shows that conservation principles have died "the death of a thousand qualifications."²

The sad tale begins with Descartes, who according to Mirowski made the conservation of mass basic to his program of reducing the physical world to matter in motion. I am inclined to think that Mirowski overemphasizes Descartes' philosophical adherence to conservation of mass. He did not believe that minds were physical. One of the minds, namely God, creates the physical world and constantly upholds it. Further, even within physics itself, Descartes's "extension" bears closer resemblance than Mirowski allows to the field concept that in his view emerged only in the nineteenth century.³

Oddly, Newton plays no role in our author's version of the story of physics, on the ground that he did not explicitly use conservation principles (p. 404). But readers inclined to complain that physics without Newton is like *Hamlet* without the Danish prince, will be surprised at the coherence and complexity of Mirowski's account. The importance of conservation laws lies principally in the fact that they allow the use of certain mathematical techniques, such as variational principles.

The fly-in-the-ointment is that the conservation laws had to be constantly modified and restricted, since otherwise they fail to work. Instead of operating with physical substance, physics in the nineteenth century turned to the impalpable notion of the field. The use of the field concept made possible the employment of powerful mathematical tools, such as Hamiltonians and Lagrange equations, at the cost of considerable difficulty in the statement of exactly what was supposed to be conserved.

Other developments, such as the rise of entropy, required further restrictions on conservation. Physicists at the beginning of the twentieth century could no longer readily console themselves over the surrender of conservation with their ever-refined formalism. Henri Poincaré showed that only under certain very limited conditions can

²This is a phrase used by the philosopher Antony Flew.

³A minority view, favored by Hiram Caton, does take Descartes to be a materialist, but Mirowski does not refer to this interpretation.

the mathematical methods cited above be used. As the reader will by now expect, the rise of special and general relativity and quantum mechanics in the present century has further complicated the story and altered the meaning of conservation laws. Mirowski goes so far as to suggest that physicists have really abandoned conservation but cling to an outworn metaphor.

All very interesting, no doubt; but what has this to do with economics? Mirowski's answer is practically everything. Economists have directly translated the models of physics in use in their time into economic categories. (Incidentally, this does not exclude the influence of economic concepts in physics.) Why, e.g., did Adam Smith define wealth as stock (p. 166)? Not because this definition was dictated to him by his observation of the economy. Quite the contrary, he was influenced by Cartesian physics, and stock, in Smith's view the substance of value, corresponds to the mass that is conserved in Cartesian physics.

Is Mirowski correct? I find it hard to decide. Smith does not say that he was transferring a physical concept to economic theory; and, even if he did, it does not follow that Smith's description of the economy is inaccurate. Mirowski emphatically dissents; in his view, the actual economical world plays only a limited role in economic theorizing. On Mirowski's behalf, however much one may think him mistaken about a particular economist, his piling up of case after case of parallelism between physics and economics will impress even the most skeptical reader.

Smith, as briefly suggested, believed that economic value was a substance. This notion dominated classical economics. Although Mirowski thinks extremely highly of Marx, calling him "an epoch-making economist" (p. 179), he shows very effectively that resort to value as substance proved Marx's undoing.

Once more the question arises: did Marx use this notion of value because he was consciously seeking a model of the economy based on the physical sciences? The case seems to me suggestive but unproven. Mirowski stands on much firmer ground, however, in his treatment of the neoclassicals.

When the field concept came to dominate physics, many scientists in a flush of enthusiasm thought that a new discipline, energetics, would prove capable of unifying both the physical and the social sciences. As the name suggests, energy was the key to the mystery; and here the application to economics is clear and straightforward. Utility, the basic concept of neoclassical theory, is identical with energy.

Mirowski's claim is startling, but he documents to the hilt that

Léon Walras and William Stanley Jevons, both of whom had scientific backgrounds, directly intended to use the physics of their day to transform economics into an exact science. Even more clearly, Irving Fisher, whose 1892 doctoral dissertation at Yale remains, if the reader will forgive me, a classic of neoclassicism, made crystal clear his goal. Fisher himself drew detailed parallels between mechanics and economics. His thesis was written, not under the supervision of an economist, but with J. Willard Gibbs, one of the greatest of all American physicists, as its director.

In the neoclassical view, utility is a vector-field corresponding to energy. Mirowski ably shows how the entire neoclassical edifice falls into place once one grasps this basic idea. But this does not vindicate neoclassicism: far from it. Utility has to be regarded as an entity separate from the goods and services people consume, in a way that defies common sense. Such eminent neoclassicals as Milton Friedman were at one time skeptical about the validity of this notion of utility (p. 366).

An obvious neoclassical rejoinder is that whatever the intuitive implausibility of utility as a field concept, the system works. Mirowski dissents and challenges the school at its point of greatest pride, its use of advanced mathematics. He finds in the neoclassical system a profusion of incorrect assumptions and arbitrary errors. I cannot present at length the technical details of Mirowski's case but can indicate only a few of its highlights. The system is unable to explain production: it is goods and services that are produced, not energy or utility. Neoclassicals have been unable effectively to account for production through their field concept. Further, the system wrongly assumes that utility must have certain features needed to make mathematical manipulation easier. Unless these features are present, the powerful Hamiltonian techniques mentioned earlier cannot be used. But the assumption that utility has these features is without basis. Further, the system depends on the law of one price, another assumption Mirowski considers arbitrary. Hermann Laurent, a noted mathematician, pointed out some of these errors to Walras; but Walras could not grasp the points at issue.

Mirowski's criticisms appear penetrating and will give neoclassicals a difficult time. I am not entirely convinced, however, by his objections to the law of one price. This law states that a single price for each commodity tends to prevail on the market. Mirowski seems right that the law is, from the point of view of mathematics, arbitrary. But he too readily dismisses the "common-sense" point that competition among traders will eliminate differences in prices. For once one

can retort to Mirowski that his vague references to strategic considerations and game theory (p. 236) are no substitute for a rigorous refutation of the law.

Of course, common-sense arguments have no place in a system that purports to be completely mathematical, and to the extent that neoclassicism has this goal, Mirowski's challenge to the law of single price is perfectly justified. But does contemporary economics altogether eschew arguments not based on physics? It will hardly do to dismiss the use of such arguments just because they do not conform to Mirowski's own picture of neoclassicism.

Regardless of this and other details, Mirowski's case is formidable. How can economics escape its longstanding bewitchment by physics? Readers familiar with Austrian economics cannot fail to note that the Austrian school avoids all of the errors that Mirowski finds in both classical substance accounts of value and neoclassical energetic theories of utility. Mirowski rightly notes that Carl Menger "cannot be considered a neoclassical economist" (p. 261), since he repudiated the imitation of physical science. But evidently viewing Menger's path as leading nowhere, he does not give a detailed analysis of the Austrian system. (Elsewhere, he refers briefly to Hayek but never to Mises.) Had Mirowski done so, he would have found the answer to his difficulties. In the Austrian view, exchange takes place only where each party values the good he gains more than the good he surrenders. By repudiating the spurious principle that exchange is an equality, the problem of conservation of utility disappears. Further, the best developed version of Austrianism, that of Mises and Murray Rothbard, views utility as simply a ranking of goods. It is not a mysterious substance or field; and there is no problem of integrating production and distribution. The theory always operates with preferences for concrete goods and services, not the quintessence "utility" to which Mirowski objects. With this school, I suggest, not with the institutionalism Mirowski favors, lies the future of economics.

There is much else in this outstanding work that merits discussion. Influenced by the anthropologist Mary Douglas, Mirowski believes that both economics and physics take many of their concepts from the human body; and he presents an elaborate scheme of the evolution of these concepts. Further, he views theories as metaphors that are imposed on reality. Like Donald McCloskey and Richard Rorty, he rejects a realistic theory of knowledge. I do not think this is the place to discuss these views at length, and any attempt to do so is handicapped by the failure of our author to define "metaphor." One question that does come to mind, however, is this: is not

Mirowski's continual claim that precisely the same conservation laws are present in both physics and economics itself an instance of just the sort of domination by the metaphor of conservation he complains of in others? For Mirowski, it is apparently the conservation laws that must be conserved.

The book is immensely stimulating and suggestive. It is must reading for all economists and intellectual historians.

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The Myth of Scientific Public Policy.

By Robert Formaini. New Brunswick, N. J.:
Transaction Books, 1990.

Robert Formaini's illuminating work throws into question a key doctrine of social planners not satisfied with the free market. A common argument for the market emphasizes consumer sovereignty: the goods and services produced in a free economy will be those demanded by consumers, since profit-making entrepreneurs have every incentive to produce what consumers wish. Those who will not or cannot do so find themselves rapidly replaced by those more alive to the market's signals.

Against this, many supporters of government planning claim that the free market does not stand alone in its ability to give rise to desirable programs. Quite the contrary, scientific measures of analysis permit objective scientists to determine which programs best promote social welfare. Among the most important of the methods that are alleged to achieve these wondrous results, risk evaluation and cost-benefit analysis rank foremost. Formaini exposes the pretensions of these pseudo-scientific techniques with withering criticism.

Risk evaluation can be used either by itself or as part of cost-benefit analysis. It attempts to answer questions such as: what are the chances there will be a meltdown at a nuclear plant? or, how likely is an epidemic of influenza? Unless problems of this sort can be solved, scientific analysis of public projects cannot succeed. If the designers of a nuclear plant do not know the likelihood of a meltdown, they will be unable to assess the costs of building the plant. Formaini raises a far-reaching difficulty for all such attempts: no consensus exists on the nature of probability.

To some, probability is an objective matter. The chance, e.g., of

drawing a particular card out of a well-shuffled deck is 1 out of 52, no more and no less. The figure has not been arrived at by empirical testing: instead, it follows from the mathematical theory of chances, whose axioms are *a priori*. Formaini, unsympathetic to this approach, raises two problems for it. First, it depends upon the existence of complete information: in the example just given, one must know that there are 52 equally likely possibilities. In cases that risk evaluators commonly deal with, however, full information cannot be obtained. Second, any actual results are consistent with the theory. If a very improbable event occurs, the theory has not ruled it out. Since the rules of probability are "true by definition," the theory cannot be falsified.

The first of Formaini's points is well put, but I am not quite sure that I grasp what he has in mind in the second objection. Why is it a difficulty in the theory that it cannot be falsified? Incidentally, it is not quite right to say that the theory is made true by definition. (How incidentally *can* something be made true by definition?—a famous question posed by Quine.) The theory is based on certain axioms, which, though knowable *a priori*, are not definitions: of course, Formaini is right that definitions are also needed. I may well have misunderstood Formaini's point: he might mean that the question of the theory's application to "real world" cases is not settled by the theory itself. If so, he is perfectly correct.¹

But these are mere quibbles. The view just discussed by no means stands alone in the field. The Bayesian approach, toward which Formaini is more sympathetic, regards probability as dependent on subjective estimates. It does not operate from an *a priori* basis but instead looks to the facts of a particular case. If a Bayesian claims that the chance of getting heads on the toss of a coin is 1-in-2, he will base his assertion on the evidence of past tosses of that coin. His estimates are always subject to revision as further information comes to light.

The dispute between the two views is not a theoretical issue with no practical relevance. As Formaini shows, the two variant approaches sometimes arrive at different estimates of probability for the same case. If so, the scientific pretensions of non-market decision makers already seem shaky. If no consensus exists on the way to estimate probability, how can it be claimed that there is a scientifically objective way of calculating benefits and costs?

The main thrust of Formaini's argument strikes to the essence. Furthermore, the theories must confront additional objections be-

¹The passage that I have difficulty interpreting is on page 22.

sides the ones our author has effectively urged against them. Ludwig von Mises contended that the calculus of probability, which he termed class probability, does not apply to individual events at all. To revert to our instance of the deck of cards, Mises would contend that one can properly speak only about the mathematical chances of classes of events. Nothing about an individual event, the drawing of a particular card, follows from class probability.

Even if one does not accept Mises's characteristically radical and incisive proposal, another severe problem faces the theory. This point is especially prominent in the work of a writer of quite another stripe than Mises: John Maynard Keynes. In the *Treatise on Probability*, Keynes shows that the application of the theory to single events depends on a controversial and seemingly arbitrary assumption, the principle of insufficient reason.

And what about the Bayesian approach? Here I think that more might have been made of the fact that Bayes's theorem requires that one assign a prior probability. The choice of this figure can radically affect one's results, but it can be picked only on an arbitrary basis.

Formaini also proposes an improvement in the way probability estimates are applied. He suggests that the analyst modify his estimate by the degree of confidence he has in his calculation. "A simple formula can be added to probability calculations to allow for uncertainty attaching either to the data or the theory through which the data is [sic] manipulated" (p. 21). If one uses the Bayesian approach, has not uncertainty in the data already been considered in the calculation? So far as uncertainty about the theory one uses is concerned, Formaini's suggestion threatens to produce a regress. How is one to estimate one's certainty? How certain, again, is this calculation? Must we discount yet again for uncertainty? This problem was raised long ago by David Hume.

Formaini goes on to suggest that if a good event is expected, one should discount the likelihood of the event's occurrence; if one predicts something bad, the likelihood should be increased. Once again, I fear that I have misunderstood. It is not apparent why certainty about one's calculation should vary directly with the badness of an event, and inversely with the goodness; and in any case one cannot be more certain than $p = 1$, which will result in the original sum calculated, not an increase. But more likely Formaini intends the discount for the nature of the predicted event as another step in the calculation, not as a consequence of the certainty estimate. If so, he gives no justification for this additional step.

An objection that might be raised to Formaini is that his case is in a sense too good. If probability calculations lack a firm basis, why does this count against non-market methods of decisions alone? Is it not necessary for entrepreneurs in the market to calculate risk? Will not precisely the same problems of estimation confront private decision makers? Although the book does not directly address this problem, Formaini has the resources adequately to deal with it.

The response in fact emerges in the third chapter. Before this, however, Formaini briefly sets forward the method of the Austrian School. His second chapter accomplishes a great deal, covering in a succinct and accurate way the foundation of the Austrian School; its conflict with the German Historical School; the Austrian deductive method; the use of *verstehen*; and the development of Austrian economics in the twentieth century. (Incidentally, it was not the German Historical School, as Formaini thinks, who proclaimed themselves "intellectual bodyguards of the House of Hohenzollern." Though its members would have enthusiastically assented, the statement comes from Emil DuBois-Reymond. Also, Hayek did not leave Austria owing to the Nazis (p. 27); he was named to a chair at the London School of Economics in 1931. In addition, Karl Popper does not think that the inductive methods of science can falsify a theory, nor does he claim that a well-corroborated theory is true [p. 33]. His best-known doctrine is the utter rejection of induction.)

The book's third chapter, "A Subjectivist Evaluation of Cost-Benefit Analysis," is the best in the book. In painstaking detail, Formaini shows the numerous problems that confront cost-benefit analysis in the vain efforts of its proponents to elevate it to the rank of objective science. For one thing, a social discount rate must be estimated. This rate determines how much future benefits are to be lowered when conducting a cost-benefit analysis. If, e.g., someone proposes that a subway be constructed that will be able to carry passengers for 50 years, one cannot simply add together the benefits from travel 50 years' worth of passengers will receive. Future benefits are not worth as much as present gains: but how much less? As Formaini shows, there is no good way of telling.

Further, cost-benefit analysis usually rests on the assumption that perfect competition is a welfare ideal. In the Austrian view, this assumption is without basis. Why is a particular market structure more desirable than whatever is actually to be found on the free market?

To this the neoclassicals have a ready answer. They claim that monopoly results in a welfare loss; further, any deviation from perfect competition imposes at least a degree of monopoly.

Formaini's response is forthright. The "welfare loss" in question depends on hypothetical preferences that are ascribed to people. The Austrians refuse to adopt this conception of preference, which they regard as arbitrary. The only acceptable conception of preference, as Austrians see matters, is demonstrated preference. If an actor does something, one can say that at the moment he preferred the choice he made to any alternative available to him. On this view of preference, the claim that a welfare loss is caused by monopoly cannot get off the ground. Neither can alleged benefits from public goods expenditures be demonstrated. Of course, paying taxes that are used for public projects does not demonstrate a preference for these projects, since these subventions are exacted by coercion. The powerful tool of demonstrated preference enables the Austrian approach to respond to the objection I raised earlier. There is no special free market way of calculating probability, and the establishment of a free economy does not resolve the difficulties of probability discussed earlier. But we can say that if people on the market engage in a project, they have demonstrated a willingness to assume whatever risks are involved in that project.

The problems inherent in cost-benefit analysis are many and various. The welfare criteria that cost-benefit analysis analysts use are either ineffective or questionable. The Pareto criterion, according to which a project can be undertaken if at least one person is made better off and no one worse off, rules out almost all state activity. Thus resort is frequently made to the Kaldor-Hicks principle, which allows changes if the gainers from a project are able to compensate the losers. The criterion does not mandate actual compensation: it thus sacrifices the welfare of the losers to the winners. Formaini notes that sometimes planners attempt to add up total benefits and total costs: a project will go forward if benefits exceed costs to a greater extent than for any alternative. This procedure is not a "watered-down" version of Kaldor-Hicks, as the author claims (p. 55), since application of the latter criterion need not maximize welfare.

In a final chapter, Formaini gives a detailed account of the swine-flu vaccination program, a major debacle of 1976. The constant errors of the bureaucrats responsible for this program cast a grim light of humor over the pretensions of cost-benefit analysis to be scientific. The government medical establishment conjured up a swine-flu epidemic out of a handful of flu cases. Their prevention measures for the non-existent epidemic cost hundreds of people their lives.

In a brief postscript, the author sums up the lessons of his outstanding study. Ethics provides a much more solid basis for decision

on whether public projects should be built than the supposed objective discipline of cost-benefit analysis. I wish that Formaini had explained in detail his reasons for thinking that *Brown v. Board of Education* was decided in a morally correct way (p. 95). Common sense is a better guide than dubious expert assessments.

I have sometimes, I fear, been unjust to Formaini in the preceding remarks. For reasons of temperament, I tend to emphasize points of disagreement. But my overall reaction to this excellent book is one of wholehearted assent.

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Foundations of Economic Justice. By Morris Silver. Oxford: Basil Blackwell, 1989.

I would like very much to be able to give this book a favorable review, but I find myself unable to do so. Silver defends the following rights principle: "Individuals ought to hold the objects they have produced; they ought not to be forcibly deprived of these objects" (p. 123). Not even the most resolute libertarian could find fault with the way he interprets this principle. Further, Silver cogently criticizes utilitarianism and Rawls's theory of justice. The author shows a remarkable acquaintance with the literature of economics, philosophy, history, biology, and anthropology.

What then is the problem? I am sorry to say that Silver's approach to economic justice seems to me unmitigated nonsense. He rightly points out that people strongly resent others' taking their property from them. This feeling of indignation he contends has been built into us by evolution. It forms the basis of morality. The good, at least so far as economic justice is concerned, is constituted by this feeling. Thus, redistributionist programs clearly violate justice, since people resent having to surrender their money for such programs. People are, of course, free to agree to transfer their money to the poor on a voluntary basis, but the agreement must be genuinely voluntary. Otherwise, resentment, the sure sign of immorality, will ensue.

People do indeed resent having their property stolen. But Silver has not shown that those feelings of resentment always express commitment to the natural rights system he favors. Suppose that someone is a member of a socialist cooperative, the owners of which are supposed to distribute revenues on an equal basis. Someone who does not receive his equal share will probably resent it. Why will his resentment be limited to cases in which he was also entitled to the share he has been deprived of by Silver's natural rights criterion?

Also, thieves will tend to feel resentful if people take from them what they have stolen. Criminals often have a very firm sense of their

rights: they simply fail to apply the restrictions they wish to impose on others to their own behavior. Once more, resentment over property taken has no direct relation with the system of natural rights that Silver defends.

One might reply to this that criminals will object only to someone's depriving them of their ill-gotten gains. They will not care about other thieves, or about anyone else, for that matter. But this objection serves to point up another weakness in Silver's argument. People generally resent injuries to themselves and those close to them: violations of other people's rights will hardly elicit the same degree of indignation. Will it bother me very much if a neighbor I dislike has his car radio stolen?

For the sake of argument, however, let us grant that people do feel resentment in exactly the cases Silver thinks they do, i.e., violations of his natural rights system. His argument still does not succeed. People feel resentment over all sorts of things—losing a job to a rival, being rejected by the person one wishes to marry, failing to get sufficient admiration from others, receiving criticism, etc. Many of these reactions have nothing to do with morality: if I resent the success of someone who has achieved more than I, this hardly qualifies as moral indignation. Silver needs to show what is supposed to be moral about his favored sort of resentment, in a way that distinguishes it from other instances of that feeling.

One way *not* to do this is to say that resentment in the natural rights case is moral indignation because taking the property of others is unjust. Exactly what Silver claims to be doing is to show by appeal to resentment what behavior is unjust. To distinguish some instances of resentment from others by references to a view of justice would be a blatant circularity. This argument can be generalized to any theory that attempts to reduce morality to feelings. Why are some feelings moral, when others, phenomenologically similar, are not? It is exactly this point that Charles Fried raises in a passage quoted by Silver (p. 113). Silver's comment on this argument must be read to be believed: he has utterly failed to grasp the point at issue.

Once more, though, let us assume that Silver has overcome this difficulty. In addition to resentment, people have all sorts of other feelings. Some people, e.g., feel strongly that poor people deserve aid, even if resources must be taken from others to support them. These people will of course resent it if their property is taken from them without their consent. But by hypothesis, they *do* consent. Why should their redistributionist feelings be outweighed by whatever resentment they feel at others' having their property taken? Or is the argument not that one feeling is stronger than the other, but that one

is morally right while the other is not? If so, what is the basis for the distinction? It cannot *just* lie in the fact that one is a strong feeling. Actually, I think that the first construal is correct. Silver thinks that resentment over lost property will tend to dominate other feelings: so far as I can see, he offers no argument. He does present evidence that people will fight to defend their property, but this hardly shows that no other feeling is as strong.

Am I unable to say anything favorable about this book? Not at all. Silver has very good objections to Richard Posner's wealth-maximization view of justice. As he notes, on Posner's theory people might end up not owning the services of their own bodies (p. 150). Another good point is the distinction he makes between von Neumann-Morgenstern utility and utility as a measure of the satisfaction of desire (p. 147). In these instances, Silver's wide knowledge of the literature emerges to best effect: he has correctly reported arguments that strike to the heart of the issues he addresses.

Too often, though, Silver is in over his head. A last instance must suffice. He draws a parallel between the view of morality he favors and a view about secondary qualities popular in recent philosophy. Silver thinks that "the ultimate criterion of the goodness of an action is how it feels to perceivers. The presence of the feeling of approval is *constitutive* . . . (p. 123, emphasis in original). He draws a parallel with philosophical views that explain "red" in terms of "looking red." Neither of the two accounts Silver cites displays the parallel with his own theory which he thinks is present. The first of the passages he quotes, by John Pollock, claims that there are no entailments between "red" and "looking red" (p. 122). Just the point of Silver's theory is that "feeling good" *does* entail "being good": the first constitutes the second, on his view. Oddly, after the passage about the criterion of goodness I have previously quoted, Silver states that "there are no entailments relating good and feeling good" (p. 123). Is he *this* incapable of grasping his own theory? The second passage (pp. 122-23) by Colin McGinn, contends that an experience of red must represent the world as being red. Silver's account, by contrast, reduces the good to feelings. A view in which feelings refer to the good as an intentional object is just what Silver does not want, since it introduces into the analysis a term he wishes to reduce to something else. I shall leave it to the interested reader to locate the remaining few valuable points in the morass of confusion that constitutes Silver's book. My advice is not to bother.

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