

## Optimal jurisdictions and the economic theory of the state: Or, anarchy and one-world government are only corner solutions

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As I see it, a genuinely *economic* theory of the nation state must satisfy at least two criteria: (1) it has to explain why a community of self-seeking individuals is better off with certain forms of decision-making centralized rather than dispersed, and (2) it has to explain what factors determine the optimal jurisdictional area over which this centralized decision-making will take place. At the risk of oversimplification we may say that an economic theory of the state must explain why both anarchism and one-world government are generally nonoptimal political arrangements. Recently, James Buchanan (1975, pp. 1-73) and Robert Nozick (1974, pp. 3-119) offered economic accounts of the origin of the nation state. In their view, the nation state emerged to reconcile quarrels among self-seeking individuals that invariably occur in the 'state of nature'. Inasmuch as quarrels add to the transaction costs of economic activity, a rational basis exists for the creation and maintenance of a quarrel-quelling agency of one sort or another. Buchanan named his quarrel-quelling agency the 'protective state', and Nozick named his the 'minimal state'. However, the fact that Buchanan saw his 'protective state' as being grafted onto a discordant 'state of nature' by way of a social contract and that Nozick saw his 'minimal state' as gradually evolving out of the competitive market process (the unintended result of self-seeking behavior), suggests that the modern Hobbesian and the modern Lockean have little in common. Yet, as I shall demonstrate, they have much in common. In fact, Buchanan's theory of the 'protective state' and Nozick's theory of the 'minimal state' are essentially complementary and together provide a novel framework for developing an economic theory of the state that meets the two aforementioned criteria. In summarizing their arguments, I shall apply the model of McGuire's (1974) analysis of the technology of public-goods provision. In this way the Buchanan-Nozick theory may be used to derive an empirical theory of early state formation. I must emphasize that it is the public-goods model that provides the framework for combining or reconciling the two theories.

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## I

In Buchanan's characterization of the state of nature — appropriately termed Hobbesian anarchy — there is no general agreement about property rights or how property (once assigned) may be legitimately transferred in the present and in the future and from the present into the future. Individuals engage in defense and predation activities and the private provision of their other wants. The entire community is at war with one another until finally a stand-off equilibrium is reached. In equilibrium each individual's time is divided between productive and warlike activities so as to equate benefits at the margin.<sup>1</sup> The interest of the many is clearly served by the negotiation of a nonaggression pact whereby each individual agrees to reduce his defense/predation expenditure on the condition that the others do the same. This pact requires some agreement about what Buchanan called the 'original' distribution of property rights. Each individual agrees to give up some of his claims on others and their possessions if they do likewise, and eventually this 'social contract' creates the framework within which other exchange institutions may evolve and promote a widespread division of labor.

Obviously, no one will unilaterally disarm (or reduce his arms expenditure) in this Hobbesian war of 'all against all' unless he believes that the others are simultaneously doing the same.<sup>2</sup> This is the *raison d'être* of what Buchanan called the protective state. It is introduced to protect property rights under the original agreement by keeping men to their promises and imposing the 'status quo' on new generations as they appear. In cases of dispute or transgression the 'protective state' decides who is liable and what type of settlement is appropriate. Most important to its functioning the protective state determines when force may be legitimately employed in social relations. The protective state does this by defining what individual actions constitute 'illegitimate coercion'. Does the protective state also attempt to monopolize the use of legitimate force in a given territorial area? Buchanan apparently believed that it does and must. However, I wish to emphasize that the necessary and sufficient condition for an individual or group of individuals to be a 'state' is that it be the only legitimate *authority* for the use of violence in a given territorial area.<sup>3</sup> According to my definition, the 'protective state' protects indirectly; it decides when force may be (or has been) legitimately applied. The actual use of legitimate force may be left to private individuals acting as private protection associations operating in the market on a profit-making basis. The idea of having private protection agencies enforce property rights is not a new one. It has been a favorite among the 'private property anarchists' (sometimes misleadingly labeled 'right-wing anarchists') in America.<sup>4</sup> Before we treat Nozick's ingenious analysis of competition among private protection associations, I wish to emphasize that Buchanan's 'protective state' is compatible with competing protection associations since its main function is to *authorize* force (that is,

maintain property rights) rather than actually deter or apprehend violators.

2

Nozick's characterization of the state of nature and his treatment of the origin of the state seem at first reading to be substantially different from Buchanan's. The main thesis of the first part of Nozick's (1974) book is that the 'minimal state' arises spontaneously by way of the market process (the unintended consequence of voluntary choices made by individuals) and not by way of an artificially contrived social contract.<sup>5</sup> But it soon becomes clear that Nozick's theory really begins where Buchanan's leaves off. In Nozick's 'anarchist' community the participants are *not* engaged in Hobbes's awful war of all against all. Rather, the majority is basically decent and subscribes to the same fundamental libertarian code (ultimately derived from natural law) that specifies how individuals may claim exclusive ownership of objects and animals and how they may dispose of them in the present and in the future. In Buchanan's terminology the community is already in possession of its 'original' distribution of rights. Because Nozick's anarchists are assumed to have access to that precious knowledge that allows them to distinguish (if only in broad outline) what is justly *mine* from what is justly *thine*, Buchanan's protective state already exists and since the protective state in Buchanan's sense of the term already exists, we may label Nozick's harmonious state of nature 'bogus anarchism'.

What then do Nozick's anarchists argue about in the state of nature? Their disputes cannot be about fundamental principles; they can only be about their application. To consider a situation that Nozick does not treat, what are we to say about the railroad engine that emits sparks and damages neighboring buildings? The owner of the railroad and the building owners do not quarrel about who is liable for the damage; they already know that from their study of natural law. What they argue about is the fair market value of that damage.<sup>6</sup> Occasionally, certain (insane?) individuals do get out of line and commit acts of aggression requiring intervention by the police and sometimes internment. Apparently, these arguments and aggressions though infrequent are serious enough to make it profitable for private protection agencies to organize in order to aid individuals in resolving their conflicts in the state of nature.

A private protection agency guarantees to protect a client from the arbitrary actions of others and to obtain a fair decision in case a client is accused of an aggression. Also, if necessary, the agency will protect the just claims of a local client against the recalcitrant clients of another protection association by going to war if necessary on behalf of the local client. Though a private protection agency is hired by a client to take action in his name, the agency is not all accommodating: a client may not order the agency to take arms against another client of the same agency. Otherwise the agency would find itself in the dilemma of being ordered to use

force against itself. Also an agency will prohibit its clients from taking up arms against members of another protection agency without its permission for fear of being dragged into numerous expensive and debilitating inter-agency conflicts.

According to Nozick, there is a tendency in any given territory for one private protection agency to dominate and drive out competitors. Why this must happen is not clear, yet Nozick's theory of the minimal state (see Section 4 below) is predicated on this alleged empirical phenomenon. Nozick stated that:

Out of anarchy, pressed by spontaneous groupings (private) protection associations, division of labor, market pressures, economies of scale, and rational self interest there arises something very much resembling a minimal state or a group of geographically distinct minimal states (1974, pp. 16-17).

Apparently the tendency toward concentration in the private protection industry is brought about by forces originating on both the demand and the supply side of the market. The ban on intra-agency violence allows large protection agencies to offer a wider area for uninterrupted trade than smaller agencies and hence more opportunities for an extended division of labor. If we let  $x_i$  represent the level of security — a 'public good' — provided by the private protection agency to the  $i$ th member and  $n$  the number of clients in that agency, we may write that  $x_i = x(n)$  where  $x'_i(n) > 0$ . This formulation captures part of what Nozick meant when he wrote of 'the worth of the less than maximal product declining disproportionately with the number who purchase the maximal product' (1974, p. 17). Now the fact that the value of the service provided by a protection agency increases with the size of that agency does not guarantee that one agency will eventually dominate the industry. Obviously, if the cost of subscribing to this agency is high, customers may prefer to belong to a smaller and less efficient but cheaper agency. This brings us to the problem of the technology of private protection provision.

### 3

To illustrate the impact technology plays on deciding the optimal size of the protection agency, let us assume that all individuals are identical in terms of wealth (or income), that is, that each possesses a fixed wealth (income) endowment of  $\bar{Y}_i$ . But not all of this wealth is available for private consumption by the client of the private protection agency. He must pay his prorated share of the costs of providing protection. Assuming that the costs of operating a protection agency increase with the size of the agency, and letting  $C$  represent total operating costs, we may write that  $C = C(n)$  and  $C'(n) > 0$ . Thus the amount of the private goods actually consumed by the representative individual is what remains after paying his service fee, or

$$\bar{Y}_i - C(n)/n.^7$$

By assuming (1) that individuals have identical tastes and (2) that their respective welfare levels depend directly on the quantities of protection and private goods they receive, the *i*th individual's utility function may be written as follows:

$$U_i = U\{X(n), (\bar{Y}_i - C(n)/n)\}$$

As may be seen by examining the utility function, the protection agency of optimal size will include the whole world if the average costs of providing protection steadily decline as *n* increases. Members of the agency will push to have new clients admitted, and prospective clients will clamor to join. Nozick's oblique reference to 'economies of scale' and another reference to 'competing companies . . . caught in a declining spiral' suggest that the technology of protection production imposes no limit on the size of the dominant protection agency (1974, p. 17).<sup>8</sup> Yet Nozick modeled the world in terms of a number of distinct 'dominant' protection agencies.

Apparently something imposes a limit on the expansion of any single protection agency in a given geographical area. If, for example, the marginal cost of adding individuals to the protection agency rises, there may come a point, with rising average cost, at which the marginal sacrifice of private goods as perceived by the choice-making individual is greater than the marginal gain in security. At this point (short of world monopoly) the optimal size for the protection agency has been achieved. Nozick did not explain why beyond some point costs may be expected to rise with further expansions in the size of protection associations.<sup>9</sup>

A realistic application of Nozick's theory of competing protection agencies to the formation of states must assume that jurisdictions expand by expanding the *territorial* area over which they claim domination. The logistics of enforcing hegemony over a large geographical area may explain why the costs of providing protection eventually rise at an accelerated rate and thereby impose a limit on jurisdictional size. However, as soon as we begin to equate jurisdictional expansion with territorial expansion, we encounter a difficulty not adequately accounted for in the simple model just described. Individuals, especially those at the perimeter of the jurisdiction, often calculate not only the direct cost of joining a particular jurisdiction (measured in forgone private goods) but also the value of the forgone options of either joining another nation state or moving off into the wilderness to find security in some other way. Individuals faced with such alternatives are apt to resist an expanding protection agency or join another instead. Thus Robert L. Carneiro, in his survey of modern anthropological evidence on the origin of states, noted that in the Peruvian coastal valleys, where village communities were surrounded by natural barriers (that is, mountains, oceans, and deserts), states were formed to a greater

extent than they were in the Amazon basin, where villages could readily move outside the jurisdictional area to find security in distance rather than pay for it. On the perimeter of the jurisdictional area, the costs of protection appeared to be greater than the benefits (Carneiro, 1970, p. 736). These remarks are intended to illustrate how the firm-industry model suggested by Nozick might be used to explain some of what is currently known about early state formations (cf. Davidson, 1977, p. 342).

## 4

I have discussed Nozick's claim that there is a tendency in the market for a group of geographically distinct private protection agencies to emerge, and I have sketched a framework for a tenable defense of this proposition in terms of the technology of public goods provision. In this section I shall turn my attention to Nozick's theory of the 'minimal state' and the important issue of whether such an arrangement can exist without compulsory taxation by getting support from voluntary contributions ('service fees') alone.

According to Nozick, while the dominant protection agency is the prototype of what he termed the modern nation state, it is not yet a state because it lacks several defining features. For one thing it does not have a *monopoly* on the use of force in its geographical jurisdiction nor are its services freely available to all who live in the area. The metamorphosis of the dominant protection agency into the minimal state comes about in the following manner: The clients of the dominant protection agency are at all times subject to injury by their nonclient neighbors as an unintended result of arbitrary procedures for determining guilt and liability. Suppose Farmer Smith (a nonclient) in discovering that his dog has been killed by a hit-and-run driver proceeds to enforce the fundamental libertarian code by detaining five suspects (who happen to belong to the local protection agency) and torturing them until one confesses. The four 'innocent' suspects are released with apologies and informed that, since Farmer Smith is not a member of the local protection agency, he has (according to Nozick) a natural right to enforce the law and determine guilt by his own procedures.<sup>10</sup> It is important to emphasize that Farmer Smith subscribes to the same fundamental libertarian code as do the clients of the local protection agency who are being terrorized by him; he differs only in the procedure he chooses to use in determining guilt.

Fear of Farmer Smith and other nonclients like him prompts clients of the protection agency to petition that agency to do something about this weird farmer and his risky and unsound procedures for determining guilt. According to Nozick's conception of natural law, the dominant protection agency may legitimately prohibit 'risky' actions, such as those of Farmer Smith, if such actions threaten its clients (1974, pp. 54-87). On the other hand, this ban on nonagency detection procedures disarms the nonclients

and leaves them relatively defenseless against aggression from clients protected by the local association. In order to act morally the dominant protection agency must compensate the nonclients, and it does so by offering to pay the difference between what the nonclients would spend on private detection procedures (now banned) and the fee for adjoining the association. If, say, the cost of joining the private protection agency is \$3,000 and the local nonclient would have spent \$1,000 on alternative methods of protection and investigation, the dominant protective association must offer the individual a \$2,000 subsidy.

In this way the dominant protection agency becomes a *de facto* monopolist of the application of force in a given territory, and it makes that force available to practically everyone in the area by agreeing to subsidize those who wish to join rather than remain independent (cf. Sanders, 1977). The nonclients are still vulnerable to attack by other nonclients and so will have an incentive to join the protection agency, especially now at the subsidized price. Eventually everybody joins up, and the dominant protection agency evolves into what Nozick calls the 'minimal state' without violating any individual's private rights and by way of spontaneous market forces.

Unfortunately, the last part of Nozick's analysis slips by too quickly. What is to prevent large numbers of clients from dropping out of the association to take advantage of the free-service provision (Buchanan, 1968, pp. 88-89)? Since nonclients are subsidized, would not everyone try to become a nonclient? Nozick did not think so, but his reasoning lacks conviction (1974, p. 113). Nozick insisted that the incentive to become a free rider is insignificant because the protection agency is obligated only to pay the *difference* between the price of its services and that of independent investigation procedures. But what an individual might have done alternatively is not known and could be radically different from past behavior. Eventually with the defection of more and more clients and in the absence of any objective test of eligibility for a subsidy, partial or total, the dominant protection agency would collapse (and/or fragment into smaller agencies), or compulsory taxation, historically associated with state formations, would be introduced as the dominant protection agency makes a last ditch effort not to raise fees and go bankrupt. The *de facto* monopoly would quickly degenerate into the historically familiar *de jure* monopoly police and court system based on forced taxation (Childs, 1977, p. 31). Thus Nozick's claim that the minimal state can arise out of competing defense associations is not convincing and completely underestimates the importance of the free rider situation encouraged by the compensation/subsidy provision. But if we abstract from the free rider problem, Nozick's conclusion that the dominant protection agency will evolve into a *de facto* monopoly is hardly sensational, since the major political problem of the authorization of force and/or the assignment of property rights is settled by Nozick's grand assumption made at the outset that the community already

possesses a fundamental libertarian code.

What we learn from a careful reading of Buchanan and Nozick is that the theory of the state is related to the general theory of 'public goods' and the difficulties involved in making them available on a market basis. The authors agree that individuals in any geographical area must look to one ultimate authority for decisions about the legitimate application of force; otherwise a viable economic system will not emerge. Buchanan sketched the creation of property rights by way of a 'social contract' involving the simultaneous agreement of a number of individuals. Nozick viewed man, not as creating property rights and their distribution, but as already knowing what these rights are and as devising protection agencies to resolve disputes and transgressions as they arise. In so doing Nozick suggested that the theory of the firm and industry might be applied to the service of protection. The application of this analysis to ancient state formations may point the way toward a genuinely empirical theory of state formulated in terms of the technology of public goods provision. The elusive night watchman state of classical political economy has finally come home to roost!

## Notes

1.

Buchanan built on the model of anarchist equilibrium developed by Winston Bush (Bush, 1972, pp. 5-18).

2.

On the historical origins of this argument, see my treatment of Hobbes's political thought (Moss, 1977, pp. 256-272).

3.

This is neither Nozick's nor Buchanan's definition of the state. Nozick, following standard libertarian practice, explicitly adopted Max Weber's definition of the state as the agency that *monopolizes* the *use* of legitimate force in a given territorial area (Nozick, 1974, pp. 23-25). According to my definition the state decides when force may be (or has been) legitimately applied but the actual use of force may in fact be left to private protection associations operating on a profit-making basis organized in the market. Buchanan did not discuss the private provision of legitimate force but implied that it would be provided by a single agency.

4.

See my essay 'Private Property Anarchism: An American Variant', (Moss, 1974, esp. pp. 26-27).

5.

Here Nozick developed an important distinction originally made by Friedrich A. Hayek between social formations that result from human action but that are not the result of human design (Hayek, 1967, pp. 96-105). See also Nozick, 1974, pp. 18-22.

6.

Since A.C. Pigou, it has been mandatory to call attention to the interdependencies that may arise in the market. Ronald Coase suggested that in the absence of transaction and negotiation costs the railroad owner and the building owners would reach a settlement on damages if they agreed about which one was liable. (Coase, 1960, pp. 1-44.) As I understood him, Nozick would have them agreeing about liabilities but disagreeing about the amount of compensation.



7.

This formulation is adapted from McGuire (1974). Following McGuire I assume that the agency's 'fee' is simply the prorated cost of running the agency.

8.

The problem is exactly analogous to the issue Sraffa (1929) raised about the stability of competitive market structures when one or more firms experience a downward-sloping (long-run) average cost curve. Rothbard (1977, pp. 47-48) produces historical evidence to indicate that rising costs are characteristic of the protection industry.

9.

In an earlier book that Buchanan co-authored with Gordon Tullock the problem of the optimal jurisdictional area for local government is considered at some length. They concluded that 'the group (size) should be extended so long as the expected costs of the spillover effects from excluded jurisdictions (that is, the diseconomies imposed on the group by those not yet brought under the jurisdiction of the government) exceed the expected incremental costs of decision-making resulting from adding the excluded jurisdictions' (Buchanan and Tullock, 1962, p. 113). In his theory of the protective state, Buchanan did not pursue this analysis, and starting from a world of nations in 'stand off' equilibrium it would seem that the world would benefit from the adoption of a super international state. Unless something is said about tastes or the technology of providing public services, it would seem that the optimal size of the 'protective state' is the world population.

10.

Against the inquisitor's *right* to determine guilt, Nozick juxtaposes the suspect's right to 'have his guilt determined by the least dangerous of the known procedures for ascertaining guilt, that is, by the one having the lowest probability of finding an innocent person guilty' (Nozick, p. 96). Other natural rights advocates like Barnett (1977) and Paul (1977) criticize the notion of 'procedural right' from a natural rights point of view.

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