10. The Effects of Cyberspace on the Economic Theory of the State

In this chapter we will delve into political theory and examine the ramifications of Cyberspace on the theory of the state, or more precisely, on the normative economic analysis of the state, which is, in fact, one version of the liberal theory of the state. Cyberspace may affect the economic analysis of the state and its main powers and governing tools on both the normative and positive levels. In Chapter 9 we focused on positive analysis vis-à-vis the Neo-Institutional economic theory. We argued that Cyberspace might challenge the notion of states as independent identifiable entities and is likely to transform collective action and rule-making processes.

In this chapter we offer a normative analysis, launching a totally fresh line of arguments, examining collective action, rule-making processes and the organization of the public sphere. While in the previous chapter we explored the impact of Cyberspace on the concept of law via the question 'what law is', we focus here on the question 'what law ought to be'. We ask whether the new technological frontiers opened by Cyberspace have any bearing on the liberal theory of the state (or on the economic theory of the state). We enquire whether the current concept of representative democracy governed by checked and controlled majority decision-making, which is the bread and butter of liberal democracies today, can be sustained. For this purpose, we develop a detailed theoretical argument beginning from initial moral principles, and leading to a detailed account of the desirable structure of government and the collective decision-making process. It will become apparent, however, that this pure normative argument regarding the state, its institutions and its collective decision-making process, is contingent upon significant elements of positive analysis.

The Western world celebrates two centuries of liberal democracy in theory and about one century of liberal democracy in practice. Concepts such as majority decision-making, representative government, human rights, the rule of law and separation of powers have become self-evident. Our debates concerning the good state and good government take these concepts as presuppositions, which do not require additional justification or reasoning. Indeed, we live in the paradigm of Liberalism. The term 'paradigm' was coined by Thomas Kuhn, when he put forward a theory about the development of natural science (1962). But his description of the evolution of science can be

extended to the way we think about normative issues, about practical laws rather than merely theoretical ones.

The current political theory discourse is conducted within the boundaries of the Liberal paradigm. The current debate is based on a set of presuppositions, which was left unchecked through the past 100 years. The paradigm of Liberalism, which is the result of the Enlightenment, as well as technological breakthroughs of the modern era (such as the invention of the printing press), has been shaken by the technological revolution of the last decade. This chapter examines whether Cyberspace requires a paradigmatic shift in our thinking about collective action, the public sphere and the state.

We begin with a brief history of economic analysis of the theory of the state, followed by mapping the normative sources of such theories. Subsequently, we construct a fresh skeleton argument for a theory of the state, based on the consensus leading normative principle, and in light of the effects Cyberspace may have on the various links in this argument.

1. ECONOMIC ANALYSIS AND THE THEORY OF THE STATE

Since the 18th century works of Borda (1781) and Condorcet ([1785] 1955) on majority decision-making, the economic approach can be viewed as having a stake in analyzing the 'state', its organs and its tools conducting and coordinating the activity in the public sphere. *Public Choice* is the major branch of economics that focuses on these issues, as it is interested in economic analysis of non-market decision-making, or in individual decision-makers as participants in a complex interaction that generates collective decision-making and political outcomes (Mercuro and Medema 1997, p. 84). Questions related to the theory of the state are also dealt with in the framework of Game Theory (Baird, Gertner and Picker 1994). Indeed, Hobbes' Leviathan ([1651] 1979) can be regarded as the first game theory-based explanation for the creation of modern states. Likewise, the main stream of Neo-Classical economics on its various branches, or the traditional *Microeconomic* paradigm, in both normative and positive levels of analysis, is also employed as a methodological tool to discuss various questions related to the theory of the state.

On a positive level of analysis, the various economic methodologies aim to explain why institutions are structured the way they are and how these structures affect the outcomes of social or collective choices. On a normative level, different theories offer an ideal model for the structure of government, the division between constitutional and post-constitutional arrangements, the desirable form of separation of powers and related questions. Some of the differences between the models are the result of different starting points with

regard to the leading moral principles that ought to guide collective action. Thus, most Chicago school law and economics writings aim at wealth maximization as the ultimate normative goal, while most public choice literature is constructed upon the social contract tradition, or its economic equivalent – the Pareto principle.

The microeconomic analysis of the emergence of the state focuses on possible market failures, which justify central intervention in the market. Such central intervention requires the existence of a state and central government. More particularly, the market failure of public goods is often portrayed as the main rationale for the very establishment of the state (Buchanan 1975, pp. 35–52, on the normative level of analysis; North 1981 on the positive level). One of the major goals of such a creation is to enable economic markets to operate, thus establishing property rights and ensuring that they will not change hands, bypassing the markets. The ability to operate markets is itself a public good which needs a central pre-market intervention in the shape of political entity such as the state. The creation of property rights is also one of the focal points of the contractarian view of the state (Skogh and Stuart 1982).

In recent years Neo-Institutional law and economics is engaged in projects in which the traditional market analysis – microeconomic or welfare economics – is incorporated with the public choice paradigm.[1] The new theoretical and methodological frameworks brought about an increasing interest of the economic approach in the analysis of the public sphere, exemplified by the recent writings on constitutional law and economics (Mueller 1996, Cooter 1999, Voigt 1999). However, it is important to bear in mind that the two branches that are the sources for the new writings – microeconomics theory or the Chicago School Law and Economics, on the one hand, and Public Choice, on the other – have different historical sources and normative backgrounds. We will elaborate on these different exogenous foundations in Section 2.

2. MAPPING THE NORMATIVE SOURCES OF THE ECONOMIC THEORY OF THE STATE

Before delving into the details of the economic theory of the state, and the possible effects Cyberspace may have on it, let us sketch a thick brush map of theories of the state, and try to locate the economic theory within this map.

The oldest and still most important debate within jurisprudence (the theory of law) is the debate between Positivist theories of law and Non-Positivist

1 The new political economics, the new institutional economics, positive political economics and the new economics of organization, can be viewed as some of the sub-branches, or related branches of the new-institutional law and economics. See Mercuro and Medema 1997, ch. 5.

theories, prominent among which are Natural Law theories. One can point at a similar, indeed parallel, framework with regard to the theory of the state, a framework that goes back to the great Greek philosophers. Plato viewed the state, similarly to his view of the law, as a natural creation, while Aristotle viewed it as man-made. The economic theory of the state is naturally in the Aristotelian path. As the broader liberal paradigm, the economic approach originates from the 18th century Enlightenment – an intellectual and cultural movement that emphasized reason, knowledge, human interaction and progress. Indeed, one of the most important foundations of the economic approach is the presupposition of rational individuals, who are the atoms of society. It views collective organization units, such as states and governments, as artificial and instrumental creations whose purpose is to enhance individuals' well-being.

The Positivist approach to the state is also the intellectual setting for the emergence of the Social Contract theories, which are the bedrock of most modern theories of the state, among them liberal democracy, as well as the economic theory of the state. Social contract theories view the emergence of the state as the result of a contract between its future citizens. The focal point in this view is the normative justification for collective organization, decision-making and enforcement. The justification rests on the initial consent of all those who subject themselves to the state, and for the sake of this general framework it is less important to specify at this stage whether this consent is real, hypothetical, counterfactual etc.[2]

What is important to emphasize is that the consensus principle of the social contract theories closely resembles the Pareto improvement criterion of micro-economic theory. Both justify collective decision-making only if it is supported by all individuals who are affected by it. Individuals would support a decision if it enhances their well-being or leaves them indifferent in comparison to their well-being prior to the decision. Hence, consensus will bring Pareto improvement or Pareto optimality (Coleman 1988, part IV). However, there is also a significant difference between the two. While the Pareto principle was offered as second best to utility maximization, the consensus principle is the leading normative principle of the social contract theories of the state, and the economic theory that follows this tradition.

To better understand this important difference, we have to go back to the common cradle of both principles – the Enlightenment and its view of rational individuals as the center of moral philosophy or political morality. From this common origin one can point at two parallel (chronologically and substance matter) developments. One is the birth of the neo-classical economic theory; the other is the framework for public choice theory of the state.

2 See the interesting debate between Richard Posner (1979 & 1980) and Ronald Dworkin (1980) with regard to this point.

Many regard Adam Smith's *The Wealth of Nations* ([1776] 1961) as the birth of modern economic science. The invisible hand that brings free markets to equilibrium is still one of the bedrocks of microeconomic theory. This monumental work was published a few years before Utilitarianism – Jeremy Bentham's ([1789] 1948) new moral theory – was launched.[3] Although Adam Smith was also a moral philosopher, and Bentham was also writing on economics, no direct connection was made between Smith's economic theory and Bentham's moral philosophy. This connection was made only a generation later by the Neo-Classical economists, who adopted for their market analysis the assumptions of Utilitarianism, and advocated the market solutions as those that maximize total utility. The works of Harsanyi (1955 and 1977) can be regarded as a direct offspring of this heritage, applied to the analysis of the constitution. Under several postulates, constitutional choices, according to Harsanyi, should reflect maximization of expected individual utilities.

It is important to highlight the new paradigm within which Utilitarianism and micro-economic theory were nurtured. This paradigm assumes that individuals are rational, that they opt for choices that maximize their happiness or utility or welfare, and that there is no value in society beyond the values individuals attribute to every decision or action. These presuppositions leave room only for a limited debate as to what is the best way to aggregate or balance between individuals' well-being or individual preferences, when a collective choice is needed, and what are the optimal collective institutions and procedures to achieve this aggregate. The Utilitarian answer, which was adopted by Neo-Classical economic theory, was that maximization of the sum of individual utilities is the right normative criterion.

But economists faced a problem with the implementation of the maximization of utility as the leading normative principle. How can individual utility be measured, and how can it be compared across different individuals? When the market is fully competitive, argued the economists, there is no need for such measurement, as the invisible hand or the market powers through voluntary interactions will bring about the desirable equilibrium, which maximizes social utility. But markets are usually not fully competitive. In most markets there are market failures, which require central intervention, and then the application of utility maximization principle is problematic.[4]

The micro-economics theory of the early 20th century found two solutions to the practical difficulties with utility measurement and comparison. One

3 Utilitarianism challenged the traditional Natural Law moral theory, which saw good and bad as pre-given and independent of individual human well-being. Utilitarianism sees good and bad only in context of individual well-being, where the total utility of all individuals is the criterion for the good.

4 There were other difficulties with Utilitarianism on both moral and practical grounds. Who should be included in the utility calculus and what is the right time frame for such a calculus are some of these secondary questions. However, most economists were not really bothered by these crucial questions.

solution resorted to ordinal preferences – a weaker assumption that individuals can rank various options, but cannot attribute a precise utility measure to each. This solution is reflected by the Pareto principle. The other solution was put forward by welfare economics: substituting utility with wealth. Money units are measurable and comparable. It is important to emphasize that both paths view themselves as second best, while utility maximization is still the desirable ultimate normative goal. This is also the reason why Richard Posner's (1979) advocacy of wealth maximization as the leading normative principle is innovative and departs from traditional welfare economics: it views wealth maximization as the leading normative principle, rather than the second best.

The Social Choice and Public Choice literature originate from different Enlightenment scholars who shared the same presupposition about human rationality. This tradition goes back in time to encompass the social contract philosophers – Thomas Hobbes ([1651] 1979) and John Locke ([1690] 1989). It passes through the works of Borda (1781), Condorcet ([1785] 1955) and Charles Dodgson (who was none other than Lewis Carroll). Their 20th century followers include Duncan Black (1948), Kenneth Arrow (1951) and James Buchanan (1975). The incorporation of the positive analysis of social choice theorists and the normative analysis of the social contract philosophers resulted with the works of Anthony Downs (1957), James Buchanan and Gordon Tullock (1962) and John Rawls (1971). The corresponding normative analysis of the latter direction was based on unanimity rather than maximization of utility (or, later maximization of wealth).

The unanimity or consensual principle is neither teleological (consequential, like Utilitarianism) nor deontological (governed by natural law). It belongs to a set of principles that judge desirability according to the decision-making process. Majority rule belongs to this group, but majority decision-making does not have any coherent and integral normative justification. Unanimity, or consensus, does. Under the assumption that individuals are rational, no one will give his or her consent to a decision that harms her. Thus, every decision will benefit at least one person, without harming any others.

In a world of no transaction costs (or no market failures), the requirement of unanimity will lead also to utility maximization. If there is a decision that enhances the total utility, consensus would be achieved to accept it, as it will be possible to compensate all those who are harmed by the decision, while those who gain will be better off; thus everyone will vote for the decision. This principle, therefore, guarantees individual rights (set by each and every person) and is also efficient in the sense of Pareto optimality. However, in the real world, transaction costs are not zero and very few collective decisions can be reached by consensus. So, as will be elaborated below, unanimity is the base line, from which rational individuals will depart in order to enable society to handle its daily business.

As indicated above, the Public Choice-Social Choice theory of the state is structured upon the social contract theories and the consensus principle. There

is, however, a secondary but not less significant debate within social contract theories, where Thomas Hobbes represents one pole and Jean Jacques Rousseau ([1762] 1998) represents the other. This debate was also the source for the major controversy of the American founding fathers: between Pluralists and Federalists, on one side, and Republicans and anti-Federalists, on the other side. This debate is important also in the context of the economic theory of the state, as this theory can be viewed as founded or as a direct continuation of Hobbes' social contract, rejecting Rousseau's analysis.

Spelled in modern economic terms, Hobbes views individuals as rational and self-interested, with a set of preferences which are exogenous to the collective decision-making process and institutions.[5] Thus, the collective sphere is principled on bringing about an improvement for some individuals without impinging on the well-being of others. Hobbes portrayed a minimal or very thin social contract, in which all people are prepared to deposit all their rights in the hand of the Leviathan in exchange for personal security. Locke had a broader view of the content of the contract, and modern legal philosophers of this tradition, e.g. Rawls (1971), have yet a broader view of the content of the social contract. This view contrasts Natural Law approaches, which hold that the good is divine or precedes human conception of it, but also contrasts 'Communitarian' social contract approaches, which assume that there is a value in society beyond the values reflected by the preferences of its individuals. Such is Jean Jacques Rousseau's theory, which views the General Will (or the general good) as distinct or separate from some kind of summing of all individuals' wills.

We are unaware of any attempt to present Rousseau's work in the framework of an economic analysis. Yet, we think that such an attempt is worth exploring, especially in the context of Cyberspace and its effect on the theory of the state. From an economic analysis perspective, one can present Rousseau's theory as differing from Hobbes and his tradition in one important assumption or presupposition. Economic analysis à la Rousseau assumes that individual preferences are not exogenous, but endogenous to the political process. In other words, the difference between the General Will and the sum of the wills of all individuals can be presented as the result of changes of preferences, from self-regarding toward more cooperative and less conflicting preferences. This change of preferences is the result of collective endeavors,

5 The presupposition regarding the 'good' is linked to the rationality-self interested assumption, but it ought to be emphasized that this assumption does not necessarily mean that individuals seek to maximize only wealth, as often some economic models assume with regard to the behavior of 'ordinary' individuals. It also doesn't mean that individuals seek to maximize only political power as often is assumed with regard to the behavior of politicians or other actors in the public arena. The rationality-self maximization assumption requires only that individuals are able to rank various options facing them in every juncture of decision-making, and that this ranking is complete and transitive.

such as deliberation and participation. We will return to this important theme later.

Let us examine now how, on the basis of the unanimity normative principle, a theory of the state can be derived, and how Cyberspace may affect the traditional liberal democratic notion of the state.

3. THE ECONOMIC THEORY OF THE STATE – THE SKELETON ARGUMENT

So far we have laid down the possible leading normative principles for a theory of the state. We will continue by adopting *consensus* as this leading principle, setting aside deontological theories, on the one hand, and utility or wealth maximization, on the other hand, although we will refer to those normative guidelines as well. What follows are several links in a chain construction of a theory of the state. They are based on the consensus principle, alongside analyses of the effects of Cyberspace on each link of the argument.

3.1 The Justifications for the Creation of States

The common theme of most Positivist theories (as opposed to Natural Law theories) that discuss the creation of the state is that the establishment of the collective entity called 'state' can benefit the individuals who are to become its future citizens. The meaning of 'benefit' is, of course, contingent upon the substantive-normative foundations adopted by each theory. But these foundations are not limited to a consequential (teleological) or procedural sort of morality, such as Utilitarianism, wealth maximization or Pareto optimality or consent. They are broader than the common foundations of the economic approach. This idea of transformation from a state of anarchy to a centrally governed society was put forward by Thomas Hobbes in *Leviathan* ([1651] 1979). Indeed, Hobbes can be viewed as both the founder of the social contract theory of the state and the founder of the economic theory of the state. His ideas were rephrased in economic language in the second half of the 20th century, by, among others, Downs (1957); Buchanan and Tullock (1962); Buchanan (1975); North (1986) and Mueller (1996, pp. 51–54).

There are different contemporary variations of this idea. Some theorists emphasize that the establishment of the state, or any political society, is a response to the market failure of public goods. Those goods will not be produced (or will be under-produced) in the absence of a central collective organization. Thus, the state is created, according to this rationale, because it enables the production and consumption of public goods, which are not produced or supplied in the state of nature (Buchanan 1975, pp. 35–52). Defense and justice are two of the most significant examples of such goods

(the former is the sole justification for the establishment of the state according to Hobbes). The mere ability to operate markets founded on private property and voluntary transactions is another such good (John Locke justified the state as a common mechanism to protect private property).

Others theorists view the emergence of the state in a way similar to Coase's (1937) description of the emergence of the firm – a result of vertical integration. This is caused by transaction and information costs associated with contracting within markets, which force production and exchange out of the markets and into organizations such as the firm or the state (Silver 1977; Macey 1988). A related view portrays the state as a framework for providing alternative institutional arrangements to contracts in the free market, which cannot be negotiated due to high transaction costs (Tullock 1982).

These rationales focus on market failures as the justification for the creation of the state. But one must keep in mind that even in a perfect market with no failures whatsoever, a collective organization will be required to ensure that the market will not be bypassed. Markets cannot operate without the concept of private property (Easterbrook 1996, pp. 212–214), and a collective organization is required to create and protect private property. The state is also required to ensure that market transactions are followed by the parties to the transaction and by third parties. This applies even in a perfect world where there are no internal market failures impeding the conclusion of efficient transactions.

Cyberspace may have an effect on all of these rationales. For instance, Cyberspace, as we have seen in Chapter 5, can remedy some public goods failures by enabling exclusion through the usage of sophisticated technological means, thus turning some goods that were public in the non-virtual world into private goods. This is true for some public goods, which can be distributed by, or through, Cyberspace, such as education or information (these goods can easily be excluded and commodified in the online environment). It is also applicable to other goods traditionally provided by governments, such as the provision of tools of enforcement, for example of contracts or of intellectual property rights. Indeed, powerful technologies allow individuals to rely on self-help means for executing and enforcing their contracts, thereby reducing (though not diminishing) their reliance on the state's enforcement services. It is not true for other public goods such as defense and health. Having said that, since Cyberspace may also break the territorial notion of political communities, it may abridge the need for traditional defense methods, diminishing the demands for such services, while creating new security needs across territorial borders. We will touch upon this point below.

As noted above, Cyberspace challenges the territorial notion of communities and thus of the state as a collective organization that resides within specific geographical borders. The traditional social contract literature, as well as the economic theory of the state, assumed that the only sensible way for

organizing communities is along territorial units, thus viewing the state as reflecting a distinct geographical unit. Montesquieu ([1748] 1977) even argued that differences in political cultures are the result of climate and geography. Indeed, the borders between existing political units are heavily influenced by geography. All this is significantly altered by Cyberspace. Geography does not play the same central role in the creation of commercial, cultural, social or political communities in Cyberspace, and Cyberian citizens face similar climatically and geographical conditions – they sit facing the computer screen in a closed room. There is no significance whatsoever to mountains and oceans that separate physical locations. In fact, communication between two next-door neighbors can pass through several continents in the same way as communication between geographically distant individuals.

Be that as it may, these changes may affect the compass of the state and the division between the public sphere and the private one. But as long as the Cyberian citizens have to walk out of their computer room to the nearby grocery, as long as they may be threatened by non-virtual burglars, these developments would not abrogate altogether the justification of the state or a similar collective entity with a direct link to some territorial considerations.

3.2. The Formation of the State

The establishment of the state is viewed by the economic approach as the result of a contract, to which all individuals who are its future citizens are parties. In political or legal terms, this contract is dubbed 'constitution'. This consensual agreement is portrayed by some scholars (e.g. Rawls 1971, Posner 1979) as a hypothetical consent, and indeed, we can hardly find historical examples for full consensus as to the content and wording of the constitution.

However, the drafters of constitutions who set the terms for their ratification in many cases make a serious attempt to obtain very wide support for the document as a condition for its adoption. This can characterize the process in which the United States Constitution was ratified (a unanimous vote of the constituent assembly and ratification by all future states' legislatures), as well as the more recent process of adopting new constitutions in the countries of Eastern and Central Europe, which have undergone a transition from communism to democracy (Salzberger and Voigt 2002). In the majority of these countries the constitution was the result of an agreement in roundtable talks including representatives of all political groups followed by referendum. The consensual mode or justification for a constitution brought many constitutional documents to reflect numerous compromises and additions of various articles in order to obtain general consent.

At any rate, conventional constitution-making is perceived as possible only through the work of agents – members of constitutional assemblies – rather than a product of the general consent of all future citizens of the emerging

entity. In many cases, however, the constitution-making process was conditional upon approval by general referendum. The reason for the need of agents is high decision-making costs. In the physical world, these costs might be so high that it will be impossible to obtain consensus. In Cyberspace, these costs are significantly lower, though some costs associated with choice might be higher, as we elaborated in various previous chapters of this book (particularly Chapters 8 and 9).

Information technologies enable not merely cheap and widespread communication of individual preferences, but the employment of software that can aggregate preferences, negotiate bargains across different issues and identify resolutions and packages that enjoy consensual support. In addition, the weakening of the strict correspondence between territories and political entities, combined with the cheap exit option, enable the formation of communities or states. These entities comprise various individuals around the globe who have common or similar preferences, enabling better outcomes of collective action in terms of satisfying individual profiles. Online communities increasingly emerge instantly, organized ad-hoc, to serve an immediate, often limited, agenda.

Even if territorial entities are still needed to produce goods or services which are territorial in their nature, such as defense, the role of such entities diminishes as they co-exist alongside non-territorial collective entities. The development of worldwide threats to personal security, in the form of global terrorism, often indifferent to geographical borders, can be analyzed in the same context. The idea of governments without territorial monopoly was put forward, without special attention to Cyberspace, by Bruno Frey (2001, 2003). The ability to conduct collective debates and voting through the Net contributes to this breakdown of the territory-dominated collective organization and to the proliferation of collective entities, as it also weakens the role of intermediaries in the process of establishing collective organizations.

What should be emphasized here is that from a pure normative point of view, formation of collective entities, such as the state, can be justified only by the consent of all the members to the general framework and basic rules of these entities. Cyberspace enables us to get closer to this utopist idea, a fact that should cause us to re-think the current conventions with regard to constitution-making processes.

Thus far, we outlined the justifications for a collective decision-making mechanism, which might interfere with the private sphere. According to the leading normative principle, however, this collective mechanism ought to be founded on the basis of the contractual or consensual principle. We also saw that the new world of Cyberspace weakens this rationale and the scope for justifiable collective actions, but does not discard it altogether. It seems that we still need a collective organization based on a social contract of individuals living in the same geographical proximity. However, this agreement can exist

side by side with other social contracts of individuals who do not live in the same geographical areas. In this sense, Cyberspace has an important role of breaking the monopoly of the traditional state and creating alliances across territorial borders.

3.3 The Rise of Central Government

The contract, or the constitution, should lay down the basic principles guiding the interactions of individuals – the protective role of the state – and the basic principles dealing with collective action, its productive role (Buchanan 1975, pp. 68–69). In its protective role the state serves merely as an enforcement mechanism of the various clauses in the social contract, making no 'choices' in the strict meaning of the term. In its productive role the state serves as an agency through which individuals provide themselves with – produce and allocate – 'public goods' (Gwartney and Wagner 1988).

In the old (pre-Cyberian) world, the rationale for the establishment of the state, in fact, merges into the rationale for the rise of central government, as Mueller (1996, p. 57) puts it:

> The constitutional perspective towards government sees its normative foundation as resting on the unanimous agreement of the community in the constitutional contract that creates the government, a unanimous agreement that arises because the institutions defined in the constitutional contract are designed to advance the interests of all citizens.

The unique features of Cyberspace, especially regarding enforcement (see Chapter 9, Section 2), may lead to interesting insights on these two functions of the state – its protective role and its productive one. We will also have to examine whether the combined rationale for the establishment of the state and the emergence of central government exists in Cyberspace.

The argument of the economic theory of the state justifying the construction of central government goes like this: The initial contract, obviously, cannot foresee every potential problem in both domains – the protective and productive roles of the state, especially where the constitution is designed to be in force for a very long time. According to the unanimity rationale, the solution for a new public issue would have been to gather everyone whenever a new problem arises, and to decide upon it unanimously. But such a solution would involve immense decision-making costs, or 'internal costs', in the language of Buchanan and Tullock (1962, pp. 63–84). This is the major justification, given by most scholars, for the need to have a central government in which the powers to protect and produce are deposited, or, rather, entrusted. It is intended to represent the will of the people. In contractual terminology, the establishment of central government and other state institutions is the result of uncertainties that exist in each individual's mind about the future of the society

in which one lives and about the future behavior of other members of that society (Mueller 1996, p. 61).

The two solutions offered by modern democratic theory to the immense costs of maintaining unanimous decision-making in the public sphere are representative democracy and majority decision-making. Indeed, the Athenians' support for majority rule and the appointment of government personnel by lottery were intended to overcome the difficulties of consensual decision-making (although the latter remained the ultimate goal). The modern developments of representative democracy and the tools designed to overcome its fallacies (such as the separation of powers), sought to overcome the same difficulties.

Representatives acting on behalf of their constituents save the costs of frequently measuring public preferences on each and every issue and the prohibitively high costs of coordinating massive numbers of people. Cyberspace significantly reduces the costs of communicating and processing individuals' preferences. It makes it possible to efficiently collect information from individuals by asking them to click their preferences directly onto the screen. It reduces transaction costs involved in collecting information about preferences, yet increases some cost associated with individual choice (see Chapter 8).

Cyberspace also facilitates fast and cost-effective information processing that allows real-time feedback on public preferences and choices. This, in turn, lessens the need for agencies and for their scope of functions. The reduced costs of coordination and communication diminish the extent of collective action problems. If transaction costs involved in co-ordination are low or non-existent, there is no need for representatives – intermediaries – to reflect the aggregated will of their constituents. Individuals may directly communicate their preferences on each and every matter.

Imagine that every morning we were asked to vote on several policy issues, and the various motions could pass only by consensual support or by a super-majority. This sounds like a remote dream in the non-virtual world, but it becomes increasingly feasible in the virtual world. Policy makers may efficiently collect public comments on bills posted on the Internet. The low cost of communication and information processing enables governments not only to consult the public but also to delegate to the public the actual decision-making powers. Not only can this vote be carried out swiftly and cheaply, technology offers automated negotiation tools that facilitate the ability to reach compromises on various issues, so that a consensus or near consensus can be reached. Information technologies may provide tools for diverse stakeholders to actively participate in policy making. Automated simulations, for instance, may support deliberation and debate on various public issues such as urban planning, education, environmental concerns and budget allocation.

In addition, low transaction costs allow individuals who were unable to get organized in the non-virtual world, to become organized. Connectivity,

interactivity and search tools reduce the cost of identifying relevant parties, communicating, acting together, and spreading information that concerns all. The ability to collaborate with individuals outside the territorial boundaries of the state may create new interest groups that were unable to get organized in the past due to high transaction costs. This can lead to increased democratization and decentralization of rule-making processes, in whose various stages Cyberspace allows groups and individuals to participate.

From the perspective of economic theory, two important problematic phenomena which exist in representative democracy ought to be mentioned, as they are toned down significantly in Cyberspace. The first is agency costs, which are associated with representative government. These costs are the result of ineffective monitoring of representatives by their voters and the ability of the former to act in a self-interested manner without being penalized by voters (or where the costs of the penalties are smaller than the political or personal gains). Cyberspace allows citizens to take a more active part in governance, and to effectively monitor government actions. The easy and relatively cheap access to information and the lower costs of collective deliberation and action in Cyberspace are likely to increase the effective monitoring level and thus reduce these agency costs.

The second phenomenon of representative democracy is the power of interest groups to seek rents at the expense of the general public, and make gains through pressure on the representatives. Interest groups are able to succeed in their actions because of the costs of collective action. These costs allow only small groups to organize – groups whose potential gain from collective action is higher than the costs of organization (Olson 1965, and in the legal context see Farber and Frickey 1991, pp. 12–37). Cyberspace, as indicated above, tends to lower the costs of collective action, which in turn enables broader interest groups to organize, bringing more equality to the political markets and diffusing the impact of narrow interest groups.

A separate economic rationale for central government in general and representatives in particular, comes from the theory of specialization. Traditional economics assumes that specialization can contribute to total welfare. Applied to the theory of government, this rationale can imply that better collective decisions would be reached if those decisions were reached by specialized bodies – administrators or politicians, who devote their time to studying carefully the issues and possible courses of actions. Cyberspace may affect this line of argument as well. We elaborated in Chapter 9 on the NASA project to map Mars. One of the interesting findings from the experiment was that the accumulated efforts of many individuals was found equivalent (in quality as well as quantity) to the year-long work of several specialists. This finding stands in conflict with the specialization rationale. One can induce that if this is true with regard to scientific projects, it may well be applicable to decision-making which involves value judgment and scientific or professional components.

It is unrealistic to assume that, had we been asked to take part in all public decision-making, we would have researched and mastered every question we were dealing with. However, the individual decision regarding which areas to study and in which votes to take part, signals the intensity of our preferences in this area. A regular dichotomous vote does not reveal the intensity of preferences. This is one of the deficiencies of majority decision-making, in light of the consensus normative principle (and for this matter, also in the light of utilitarian morality). The participation of everyone in every decision, which is made possible in the new technological environment, will also assist in revealing intensity of preferences. This, in turn, might enable departure from a strict unanimity rule toward some qualified majority.

Parliaments in many countries are currently engaged in various projects to delegate more decision-making powers to the public at large or to incorporate the general public in the decision-making process. However, from the theoretical and normative perspective of Liberalism, it is the public at large that delegates powers to representatives. The rationales for such delegation, such as the immense decision-making costs of the public at large, are seriously impaired by the technology provided by the Internet. In other words, when legislators and other politicians talk today about more participation of the general public in their work, they speak within the current democratic paradigm, in which representative government and majority decision-making are taken as given normative truths. Yet, the opportunities for collective action in Cyberspace call for reexamination of the existing paradigm. We should rethink whether representative government, and indeed, central government is needed at all, and if so, whether it should be guided by majority decision-making.

3.4 The Republican Twist and Law and Economics

The challenge to the justification of representative government is highly significant from a Republican theorist's point of view. Some Republican theorists of the state, in contrast to Liberal theorists, emphasize that central government is needed not only to reflect the preferences of the general public in a more efficient or cheaper way, but to lead the community toward civic virtues and 'better' preferences. This idea was phrased sharply by Edmund Burke in his famous *Address to the Electors of Bristol* (1774). He said: 'Your representative owes you, not his industry only, but his judgment; and he betrays, instead of serving you, if he sacrifices it to your opinion'. Other Republican theorists emphasize the need of the desirable political community to have not only technical mechanisms of preferences aggregation through representatives, but also a more substantive content to the public sphere, which will enable real deliberation and participation by all individuals.

The Republican view rejects the notion that the democratic scene is a competitive marketplace of ideas that must be kept free so it can best reflect the

aggregated choice of citizens. Political institutions, according to the Republican view, shape public discourse, and thereby affect preferences. Preferences are considered a by-product of a political process that takes place in the public sphere and are shaped by deliberation or sometimes by the inability to deliberate. The way public discourse is structured affects the way individuals develop their ideas, shape their positions, identify their interests, and set their priorities. Preferences do not exist prior to the deliberating process, but are rather the output of political processes. Institutions and processes which are based on individual participation and responsibilities, it is argued, are likely to shift self-centered individual preferences into more public-regarding preferences. This latter Republican idea is reflected by Rousseau's distinction between the general will and the sum of individual wills or preferences.

One of the major arguments of the Republican perspective of the state (as it was, for example, put forward by the anti-Madisonian or anti-Federalist group among the American founding fathers) is that civic virtues can be developed by the participation of citizens in government, their exposure to different and conflicting views and the deliberation of these views (Sunstein 1988). Participation in the public sphere is likely to shift self-centered individual preferences into more public-regarding preferences (Sen 1987). Civic virtue describes an *other-regarding* rather than a purely *self-interest* approach—a willingness to give priority to the communal interest. Civic virtue thus enables participants in their capacity as citizens to undertake responsible decisions that are informed by, and respectful of, the claims of other groups and individuals. This may also enhance the well-being of individuals by creating a sense of communal belonging and social solidarity.

We indicated before that there are hardly any attempts to incorporate Republican thinking into the economic approach.[6] In fact, one can reconcile the two, or phrase some of the Republican theorists' claims in economic terms. In economic terminology, Republicans view individuals' preferences as endogenous, rather than exogenous, to the political process. They believe that deliberation and participation may change individual preferences to be more other-regarding, thus enabling a higher sum of utilities in collective actions or an ability to reach a superior point on the Pareto frontier. This is the reason why the American Republican founding fathers (or anti-Federalists) opposed a strong federal structure for the USA, in which, according to them, individual involvement in the public sphere would be minimal, the preferences of

6 Farber and Frickey (1991*)* incorporate Republican thinking into their Public Choice and Law analysis. However, they generally conclude (p. 45) that the two theories are in conflict, and they incorporate Republican thinking into law and economics only at the positive level, showing why Republican assumptions can explain, for example, the rare occurrence of collective decision-making problems, such as cycling. They do not go as far as implementing Republican thinking as to the basic assumption of economic models regarding the origin of preferences. See also Mashaw (1988).

individuals more self-regarding, and thus, the outcome of collective action would be worse.[7]

From a Republican perspective, Cyberspace might change the conditions for achieving desirable participation and deliberation. On the one hand, the ability to deliberate and participate in Cyberspace is much less dependent upon the number of participants and especially on their geographic distance from the major collective institutions of central government. The picture of Mr. Smith from the Midwest, who is so remote from the power centers in Washington that he loses interest in the public sphere, is no longer true for Cyberspace. The ideal Athenian city-square can be achieved in Cyberspace with many more participants who do not gather physically, but virtually. The Swiss Cantons' excuse not to grant women voting rights because there is no physical place where they can join the general assembles in the main square cannot be sustained.

From the Republican perspective, the way information markets are structured is of great importance for shaping preferences since preferences are not prior and exogenous to the political process, but rather an output of that process. Processes in the *public sphere* should be given a broad understanding to include all discursive will formation processes that take place in our cultural life (Elkin-Koren 1996). Cyberspace facilitates more opportunities for individuals to undertake an active part in the public sphere. While public discourse in the pre-Cyberspace age was facilitated exclusively by the mass media, online exchange allows more individuals to directly communicate with each other. The low cost of communication provides individuals with more affordable access to news, large databases, and cultural artifacts. Yet, not everyone is hooked up to the Net, and many do not even know how to use a computer. Within the limits of the digital gap, Cyberspace is (potentially) accessible to all and significantly expands the number of potential participants in public discourse.

Digital networks further affect the quality of participation in the public sphere, enabling interactivity and facilitating more active involvement. Participation is no longer limited to passively consuming television shows and editorials of major newspapers. There are increasing opportunities to speak out and actively take part in online debates, by using talkbacks, posting one's own positions and analyses in online forums, and challenging the views of others. The low cost of producing and distributing informational goods (see Chapter 5), and the interactive nature of digital representation, allow

7 This is, it should be emphasized, only one interpretation of Republic thought. Whether the differences between Rousseau's General Will and the sum of individual preferences can be attributed to the shift of preferences which is the result of collective organizations attempting to convince the general public as to the best course of actions of society, is an open question. Some Republicans would probably argue that this is not a fair and full view of the Republican perception of the public sphere. We will not elaborate on this interesting philosophical point here.

individuals to participate in creating their own cultural artifacts, publish on their own Web pages, adopt fictional characters to reflect their own meaning or political agenda, participate in collaborative writing of online stories or report news to a newsgroup. Online discourse, therefore, opens up opportunities for transforming the structure of public discourse from the mass media scheme of one-to-many, to a more decentralized, and more democratic many-to-many structure.

On the other hand, Cyberspace may create new types of problems, which are relevant to the Republican view of collective organization and action. In Part II we discussed at great length the effects of Cyberspace on the information markets. We showed that Cyberspace may facilitate new types of monopolies and centralization (Chapter 4) and offer new measures of control over informational goods and cultural artifacts (Chapter 5). When production of content is centralized, few bodies determine what becomes available to the public, thus limiting the choices regarding which values, identities and positions to adapt. Accumulation of control over content through standards (Chapter 4), pervasive use of intellectual property laws to limit technological developments (Chapter 5), or impeding access to information by search engines (Chapter 6), may interfere with the opportunities for participation described above.

Another type of problem is discussed by Cass Sunstein in his book *Republic.com* (2001). Sunstein argues that the architecture of Cyberspace can encourage people to close themselves in homogeneous communities or enclaves, immune from diverse views, and thus in danger of being part of Cyber-cascades. This, according to Sunstein, will eliminate shared national experiences and the real deliberative nature of democracy will be lost. In economic terminology, Sunstein argues that Cyberspace may make people more egocentric in their preferences and less other-regarding. Thus, from the point of view of collective decision-making, the result will be worse for everyone.[8]

These claims, however, are made in the framework of the old paradigm of representative democracy and in the context of the traditional territorial conception of society. They are also made under the assumption of lack of regulative intervention in Cyberspace or against specific content of regulation. They are not made against the new technological frontiers or the development of Cyberspace as a provider of new opportunities for forming, expressing and negotiating preferences and for forming new a-territorial communities. In other words, Sunstein's argument is made in the context of the debate regarding whether Cyberspace should be regulated, and if so, how, and not in the context of examining how Cyberspace might affect our basic philosophy of the state.

8 In the past, Sunstein (1995, p. 1783) argued that Cyberspace, in contrast to the Madisonian vision of the state, enables large-scale substantive discussion, which brings us closer to the deliberative democracy or the Republican vision of the state. This is somehow different from his more recent arguments in *Republic.com* (2001).

We may agree with Sunstein in his conclusions as to the question of whether Cyberspace should be regulated. But this question is a false one anyway, as the architecture of Cyberspace is itself a form of such regulation (Lessig 1999), and there is no real option, therefore, of abstaining from its regulation. The only question is how to govern it (Salzberger 2002), or what is the substance of such regulation. Be that as it may, we do not share Sunstein's concerns regarding the loss of social cohesion, the alienation and isolation in homogeneous Cyberian communities. This may be true in an interim stage, but we think that even at this point, Cyberians are more exposed than those in the non-virtual world to differing views. In the long run, however, we can expect a process in which all preferences will be endogenized and even homogenized (Elkin-Koren and Salzberger 1999, pp. 579–580).

To summarize, the Republican perspective expands the traditional reasons for establishing a central government beyond a good (and cost-saving) representation of the public preferences, focusing on its role in shaping individual preferences. Many Republican theorists focus on political participation of citizens in government as a process that can produce civic virtue. From this perspective Cyberspace offers more opportunities for participation, potentially bringing participating individuals toward more cooperative and responsible preferences and choices. This, in turn, can diminish the need for central government even in Republicans' eyes. Cyberian communities managing their own affairs with no central government, it can be argued, will bring the participating individuals towards more cooperative and responsible preferences and choices. Having said this, Cyberspace may facilitate new types of monopolies and centralization in information markets (see Chapters 4 and 5), thus interfering with such opportunities for participation. In any case, adopting the Republican paradigm vis-à-vis Cyberspace ought to direct us to a significant modification of the definition and roles of traditional central government.

From both perspectives of collective action – Liberal and Republican – Cyberspace enhances opportunities for participation of individuals in setting the rules, thus facilitating decentralization and democratization of rule-making processes. Rules may be increasingly created in a bottom-up fashion, and therefore, in the absence of the failures discussed above, reflect more diversified social and economic interests in increasingly complex societies. A legal regime in which individuals are able to directly communicate their preferences has several advantages over a legislative process exercised by elected representatives. Individuals are able to reflect their preferences directly, hence more accurately. This reduces the chances of mistaken assessment of public preferences and therefore inaccurate setting of the rules. This factor should be viewed as an advantage from both Republican theory and Pluralist-Liberal vantage points.

3.5 The Shift from Consensus to Majority Decision-making

So far we touched upon one pillar of the existing liberal paradigm of the state – representative government. We now turn to the other pillar – majoritarianism. Regardless of the question of who should operate the state – its citizens in a form of direct democracy or a central government representing the public in large (according to Pluralists) or guiding it (according to Republicans) – there is a no less important issue of the desirable daily decision-making rule. The economic reasoning for the shift from consensus to majority rule is best represented by the model of collective decision-making set by Buchanan and Tullock's *Calculus of Consent* (1962). This model can be considered one of the classical presentations of a normative analysis of collective decision-making in the framework of the consensus principle. It is a good reference point for the analysis of collective action in Cyberspace.

Buchanan and Tullock distinguish between external costs of collective decision-making and internal costs. The former is the total costs to individuals negatively affected by the collective decision. These costs diminish, as the majority that is required for reaching a decision is larger. In unanimous decision-making the external costs are reduced to zero, as rational individuals will not grant their consent to decisions that harm them. A super majority decision-making rule will, on the average, impose less external cost than a simple majority. A dictator's rule (one dictator has the power to make the decisions) inflicts the highest external costs on the members of his or her community. The internal cost function reflects the costs involved in the decision-making process itself. It is shaped in an opposite way to the external cost function: dictatorial rule is the least expensive to operate. As the majority required for passing a decision is greater, so are the costs involved in the decision-making process. Consensual rule is the most expensive to operate.

The optimal decision-making rule, according to Buchanan and Tullock, is the one that minimizes the sum of the two types of costs. Buchanan and Tullock show that in most areas this optimal rule is a simple majority, but there might be special types of decisions in which the optimal decision-making rule is a qualified majority. These latter types of decisions are usually characterized by asymmetry between the external costs and benefits inflicted on the members of the community, e.g. decisions that touch upon basic human rights, for which the costs to the members whose rights are violated are far greater than the benefits to the others. The Buchanan-Tullock model is one of the few modern justifications for majority rule.

The application of this analysis to Cyberspace is interesting. Its results depend on the definition of the Cyberian community. If we regard the whole of Cyberspace as the unit of analysis, we believe that the external cost function will not change notably in comparison with the non-virtual world (subject to the assumption that individual preferences are exogenous to the political

process), while the internal cost function – the decision-making costs – will decrease significantly. Collective decisions, as we have already discussed, are cheaper to arrive at because of lower costs of information, negotiation, and communication. If the marginal cost function of decision-making as related to the majority required for deciding is more moderately sloped, we can expect the optimal decision-making rule to be greater than a simple majority. Hence, the democratization in Cyberspace is reflected not only by weakening the dependency on representative structure and the agency costs it is associated with, but also by shifting the decision-making rule from simple majority towards unanimity, all within the framework of consensus as the leading normative principle for collective action. This can increase the total well-being of the members of the community.

So far we have referred to Cyberspace as one community. If, however, we view Cyberspace as a conglomerate of communities, a change will also occur with regard to the external-costs function. This is because of the exit option, which is much easier to opt for in virtual communities. The availability of this option is likely to decrease the external cost function in addition to the internal cost function. This might not change our conclusion regarding the optimal decision-making rule, as this conclusion is contingent upon the marginal functions of both types of costs. But this assumption will lead us to an even greater total advantage from collective action, as for every decision-making rule, the total costs – decision-making and the reduction in one's utility – will be lower than the equivalent decision-making rule in the non-virtual world.

To summarize, the new technological frontiers enabled by Cyberspace ought to make us re-think two fundamental ingredients in the current liberal democracy paradigm – the need for a central and representative government and the adoption of majority decision-making. In the traditional economic theory of the state, both are the result of immense costs that will be incurred when operating a state by direct democracy based on unanimous decision-making. We tried to show here that the new technological frontier of Cyberspace might weaken the justification for central government and majority decision-making. It may, however, not discard these two foundations altogether, but fresh thinking is needed as to the functions, decision-making process and scope of operation of central government, as well as to its structure – the next point in our analysis of the economic theory of the state.

3.6 The Organization of Government – Separation of Powers

We talked about the justifications for the state and its central government. The next link in a skeleton argument for the economic theory of the state concerns the structure of central government. This desirable structure ought to be derived from the list of functions assigned to the state. The list of these functions is embodied in the rationale for central government itself. Here we

want to explore their specification and organization. The doctrine of separation of powers is the major structural principle of the economic theory of government. Separation of powers can be viewed as comprising several components: separation of functions, separation of agencies, separation of persons and a form of relations between the powers. Let us elaborate on each of these components and examine the effects Cyberspace may have on their traditional analysis.

a. Separation of functions

There are two types of separation of functions; one of them is usually overlooked. We have distinguished between the protective function of the state and its productive function. The protective function is connected mainly, but not exclusively, to the constitutional stage and the binding force it exercises upon post-constitutional collective processes. The productive function is related mainly to the post-constitutional stage (Buchanan 1975, pp. 68–70). From a theory of state point of view, this distinction should be considered as the more important grounds for separation of functions.

A second functional division of central government is between rule making, rule-application and rule-adjudication, or, as they are more commonly called, legislation, administration and adjudication. History reveals that this functional division has always existed, regardless of the era (or at least long before the doctrine of separation of powers was under discussion) or the type of regime (Montesquieu [1748] 1977, Book I, Section 3). This phenomenon also has an 'economic' logic: governing according to rules, their application and their enforcement, rather than making each decision individually and independently, is more efficient. It minimizes transaction costs from the point of view of the government or of the decision-makers, as it is cheaper to apply a rule than to deliberate every question from initial principles. It also minimizes agency costs from the viewpoint of the citizens, namely the exercise of individual control over the government, by providing certainty and predictability (Brennan and Buchanan 1985, Chapters 6–8).

Cyberspace may alter both divisions of functions. The primary division – between the protective and the productive functions – is a direct consequence of the shift from consensus in the constitutional stage to majority rule in the post-constitutional stage. This separation of functions loses its magnitude if such a shift is not needed, as described in the previous section, if at least a greater share of collective decisions can be reached by consensus rather than by majority vote even in the post-constitutional stage, or in the realm of the productive function of the state. In other words, if post-constitutional collective decisions can be reached through direct votes (rather than votes of representatives) using unanimity or super majorities, the distinction between constitutional and post-constitutional spheres loses its viability.

The secondary division (between rule-making, rule-application and rule-adjudication) is also blurred by Cyberspace. First, Cyberspace can provide technological means for enforcement that can replace some of the existing human institutions (see Chapter 9 and Elkin-Koren and Salzberger 1999, pp. 574–577). Thus the need for enforcement apparatus as a separate governmental function diminishes. Second, the regime of norms in Cyberspace is less hierarchical than in the non-virtual world. In contrast to the conventional pyramid of norms, in Cyberspace we are likely to see overlapping and contradicting norms. Individuals could have greater freedom to subject themselves to certain norms and not to others. This phenomenon blurs the distinction between general and individual norms, or between rules and their executions. This point adds to obfuscating the boundaries between the three traditional functions of central government.

b. Separation of agencies – constitutional versus post constitutional organs

There is a long way, both historically and conceptually, between mere separation of functions and the separation of agencies. The latter principle has a significant effect on the structure of government, because, according to it, not only do the three functions – legislative, executive and judicial – exist, but they should be carried out by separate institutions or branches of government. Before discussing this type of separation of agencies, however, let us spare a few words on the separation of agencies aspect of the earlier distinction between the protective and productive functions of the state.

A careful look at the role definition of the protective and the productive functions will result in the conclusion that corresponding separation of agencies is necessary due to the conflict that arises between the two functions. While the protective state is aimed at enforcing the initial contract (the constitution), the productive state is engaged in activities involving production of public goods for which the costs are shared by the individuals, and hence involve re-allocation of resources. There are, naturally, conflicting desires within the productive state, but in the non-virtual world their resolution cannot be based on unanimity (as we have explained, the optimal decision-making rule, which takes into account the excessive costs of the decision-making process, will depart from unanimity). Conflicts between the outcomes of the productive state and the initial social contract are, therefore, to be expected.

The productive state will tend to overstep the boundaries of the initial contract, aiming to reach its 'technical productive frontier' (North 1986; Eggertson 1990, pp. 319–328). This may be worsened by principal-agent problems between the government and the people, interest-group politics and rent-seeking activities (Gwartney and Wagner 1988, pp. 17–23; Eggertson 1990, pp. 350–353). The protective state will not take into account the benefits of any one alternative against its opportunity costs, and its outcomes will not

necessarily be the set of results which best represent some balance of opposing interests (Buchanan 1975, pp. 68–70). Even if the productive state will be guided by utility maximization or wealth maximization, it will not compensate those who become worse-off from the decisions, because their votes will not be needed to pass decisions (unlike the case where unanimity is required for passing a decision). For these reasons, it is desirable to separate the agencies assigned to fulfill the protective and the productive functions.

Parliaments in the physical world are the main institutions of the productive state. Separating the protective and productive agencies means that parliaments should not be given constitution-making powers. The constitution is aimed at limiting the powers of the parliament, and it will not perform its tasks if it is drafted and approved or amended only by parliament.

In the post-constitutional stage, the protective function is of a judicial nature, and in most Common Law countries it is indeed assigned to the judiciary; but it is distinguishable from the role of the judiciary within the productive state. Indeed, in many Civil Law countries, the protective function is assigned to a body such as a constitutional court, which is not perceived to be part of the ordinary judiciary. This distinction between the regular court system and the constitutional court makes sense vis-à-vis the rationales for separating agencies of the productive and protective states. The constitutional court has to be independent from the post-constitutional organs of the state, but accountable to the people. The regular courts, whose main task is to adjudicate disputes between individuals, must be independent from the public, but less so from the post-constitutional organs of government.

Cyberspace, as specified above, blurs the distinction between the productive and protective states, and this should also have bearing on the need for separate agencies. Furthermore, even under the assumption that some sort of separation of functions is needed, the necessity for separating agencies diminishes. The problems with the productive state in the non-virtual world are toned down in Cyberspace, as (1) rent-seeking problems decrease, due to the low costs of collective organization and (2) agency costs are lower due to the improved technological methods of principals to monitor their agents. To this, one has to add the ability in Cyberspace to shift the decision-making rule of the productive function from simple majority towards unanimity, as well as the low exit costs of shifting from one normative regime to another.

c. Separation of agencies – Legislature, executive, judiciary

Let us return to the more familiar separation of agencies between the legislature, executive and judiciary, which can be seen as a division of powers within the productive state. The productive state can be perceived, from a microeconomics perspective, as a micro-decision unit (like a firm) or perhaps as a set of micro-decision units (like an industry), producing primarily public

goods. In this context, separation of agencies is connected to the monopoly problem (Silver 1977; North 1986; Whynes and Bowles 1981). The concentration of all governing powers in the grasp of one authority creates a vertically integrated state, which has monopoly powers, or even discriminating monopoly powers. Monopolies cause inefficiency and a distorted division of wealth between the producers and the consumers, i.e. in the case of the state between the government and the citizens.

There are several possible ways to promote competition in the case of the state as a monopoly: the existence of other states, to which it would be possible to emigrate, namely the 'exit' option (Hirschman 1970), a federal structure (Tullock 1969; Posner 1987, Mueller 1996), and the separation of agencies. These forms of promoting competition can be regarded as substitute measures. Thus, a more accessible exit option can soften the need for separation of powers. Likewise, a federal state weakens the need for a rigid separation of powers. As we have noticed before, Cyberspace increases the possibility to use the exit option, at least with regard to some sort of public goods (e.g education, culture, community services). This means that in the Cyberian era, the necessity of a strict separation of agencies might be weaker than in the traditional world.

It is important to note that the rationales for separation of functions and for separation of agencies are different. Theoretically, one could devise a structure of government in which separated agencies are performing similar functions. It can be argued, however, that in the non-virtual world, de-monopolization through separation of agencies assigned to carry out the various functions (every agency performing a different function), or a vertical disintegration of the state, would be efficient, as derived from a basic rule of economics – the rule of specialization and trade. But separation of powers can also increase the production costs due to a combination of higher communication costs and reduced costs of non-optimal operation (Posner 1987, pp.11–14).

The efficacy of separation of agencies and its correspondence to the separation of functions, therefore, will also depend on the size of the society or jurisdiction (Silver 1977). It can be argued, for example, that American-style separation of powers does not suit smaller countries. This may be one explanatory factor for differences in government structures across the world. This constraint disappears when we talk about possible future Cyberian political entities. Geography does not have any importance in Cyberspace, and the number of citizens in a Cyberian community can be worked out to the optimal number more easily than in the traditional world.

In the non-virtual world separation of agencies, when vertical (within the central government), rather than horizontal (federalism), can, in fact, increase the monopolistic powers of the government vis-à-vis the general public, by diminishing the quantity of public goods produced (Brennan and Hamlin 2000). In other words, when a monopoly is broken up into several firms, each

producing a different ingredient of the final product, the monopolistic exploitation of consumers rises. Only competition in the production of the same ingredients achieves desirable results. Thus, separation of agencies itself does not guarantee desirable results from the point of view of the public well-being. Only certain kinds of separation – in which the separated organs are fulfilling together some overlapping functions – will achieve the desirable results. This component will be analyzed in the last point of this skeleton argument.

Lower transaction costs in Cyberspace abolish the need for a federative structure or horizontal separation of powers, as was observed by Dennis Mueller (1996, p. 77–78), writing to justify federalism:

> In a world of zero-transaction (decision-making) costs, and in which unanimity rule is used in the national (highest) legislative level, no other level of government would be necessary. All collective decisions for all citizens could be made in a single legislative body formed of representatives from across the entire country.

Mueller's insight should be extended to vertical separation of powers. Unanimity and zero transaction costs diminish the rationale for separation of agencies. Therefore, to the extent that transaction costs in Cyberspace are lower, the justification for separation of agencies is reduced.

There is another important rationale for separation of agencies – diminishing agency costs. As we have seen above, the democratic system is a kind of a compromise or a second best option, which is the result of the need to transfer powers from the people to a central government, and at the same time place the government under the control of the people in a way that would not be too costly. In this sense, it was probably appropriate to describe democracy as the least bad system of government. The main problem of the transmission of powers to a central government, leaving only periodical control, is agency costs, which are caused by the differences between the incentives of the agents – the politicians – and the incentives of the principals – the citizens.

There are three typical categories of costs involved in a principal–agent relationship: bonding costs, monitoring costs and residual loss (Jensen and Meckling 1976). In the case of central government (agent) and citizens (principals), the residual loss is the dominant element. This loss is created by the mere fact that the rulers-politicians seek to maximize their own utility by gaining more powers (or materializing their private ideologies), instead of maximizing the population's well-being (Michelman 1980, Backhous 1979). One way to reduce these agency costs is to divide the agency into separate sub-agencies, creating different incentives for each. In that way, while legislators act to maximize their political powers and chances of re-election, administrators and judges have different incentives, as a result of different institutional arrangements. If this is the case, the reduction of agency costs

would be more significant if the division of powers were not only by separation of agencies but also by assigning each agency a different governing function (Macey 1988). Here, we are getting closer to the classical idea of separation of powers.

The economic history explanation (e.g. North, 1981) of the political changes in seventeenth and eighteenth-century Europe, among them the emergence of separation of powers, is a particular example related to the theoretical explanation above. In a nutshell, this explanation focuses on the financial crises of the early nation states, which brought the rulers (the monarchs) to seek loans from the public. One of the methods to gain the confidence of lenders in the government's commitment to honor its credit was the creation of other governmental agencies, including an independent judiciary, which were assigned to enforce these contracts in an impartial manner. The emergence of representative government is also associated with this explanation.

This rationale may hold when we consider relations between different Cyberian entities. In other words, some separation of agencies to credibly commit a Cyberian community might be beneficial, and thus desirable. One sort of such separation can be separation between bodies whose major aim is economic profits and those who are not geared primarily to maximize profits. The regulation or government of Cyberspace through the code or its architecture is one of the bold examples for this insight. Cyberspace, much more than physical political forums, is regulated by its architecture, or by the code. This code was originally designed by the US army with the goal of decentralization and by university professors whose aim was to create an egalitarian, democratic, open and deliberative forum. Today, Cyberspace is captured more and more by economic powers whose interests are very different. Since the code is a significant source for the government of Cyberspace, it can be argued that there is a pressing need for some separation of agencies in the regulation and rule of Cyberspace.

This conclusion is, on the one hand, in sharp contrast to the call for traditional governments to leave Cyberspace alone to its own anarchic development. On the other hand, our conclusion does not necessarily endorse heavy regulation of the economic players in Cyberspace and their prevention from regulating through the code and technological innovation. The separation of agencies approach endorses competition between the economic forces and non-economic governing forces (which in Cyberspace can be performed by the community of all users). Regulation should, therefore, focus on enhancing technological freedom, enabling competition among different technologies, and preventing anti-competitive economic and technological strategies.

d. Separation of Persons

Separation of persons is considered the third fundamental element in the pure doctrine of separation of powers (together with separation of functions and of agencies), and the most dramatic characteristic of it (Marshall 1971, pp. 97–100). This element was, in fact, already incorporated into our analysis of separation of agencies, because economic analysis is based on individuals and their rational-personal choice. This choice (or the utility function) is crucially dependent upon exogenous circumstances. Thus, choices made by government personnel are dependent upon the branch of government in which they work. In other words, in the context of economic analysis, there is no meaning to establishments and institutions without their human operators. Likewise, there is no meaning to the analysis of individuals' behavior without examination of the institutional arrangements and incentives mechanism to which they are subject. Thus, separation of agencies is meaningless unless separation of personnel is an integral component of it. This applies equally to the separation of persons in the context of separating the constitutional and post constitutional agencies. Thus, there is no meaning for such separation, from an economic analysis point of view, if the composition of the constituent assembly is identical to the composition of a parliament, or that parliament also functions as a constituent assembly.

This does not mean that only lawyers should be part of the judiciary and only bureaucrats should work in the executive. There are legal systems (especially in Continental Europe) in which a mixture of professionals in the different branches of government is encouraged, and from our perspective this may even be more efficient. Separation of persons merely means that no one should be part of more than one branch of government at the same time. This is not a trivial requirement, as it appears at first glance. In many systems, such separation of persons does not exist, when, for example, cabinet members can and in some systems must also serve as parliament members.[9]

We noted before that separation of agencies might reduce agency costs, which are the result of the government–citizens (agent–principals) relationship. One way of achieving this is different representation structures for each of the branches, which can increase the people's control over the government and the interplay between particular and general issues on the public agenda and between short, medium and long term interests. Without separation of persons, a significant share of these advantages would fade away. The desirability of separation of persons is further derived from the optimal relationships between the powers, as will be explained below. The American system, which uses the advantages of different representation structures, is also quite strict about this

9 The most notable example is the Lord Chancellor in Britain, who is a member of all three branches of government.

element of separation of persons. The Vice President is the only top figure who is part of more than one branch of government.

Since we concluded that in Cyberspace the urge for separation of agencies of both types – constitutional versus post-constitutional, and legislature, executive and judiciary – is decreased because of the ability to maintain direct rule by consensus or near consensus, the need to separate persons correspondingly decreases too. In addition, when applying the argument for separation of persons to Cyberspace, we have to bear in mind that Cyberspace transforms not only the notion of collective communities, but also that of the individual, who is the basic unit for liberal philosophy of the state and for economic analysis. In the non-virtual world, the basic unit of reference – the individual – is one physical person. In Cyberspace, the individual is a username with a password and an electronic address. There is no strict correlation between the Cyberian individual and non-virtual individual, as the same physical individual can appear in Cyberspace as several entities, each with different identification features and a different character. Cyberspace allows multiple representations of the same physical individual, as well as a single virtual representation of several physical individuals. The separation of persons, which is central to the traditional theory of the state, is, therefore, significantly muted in Cyberspace.

e. The Relationships Between the Powers

The most controversial element of the desirable structure of government is the relationships between the separated powers or branches of government. There are at least two distinct, though interrelated, questions here: (1) to what degree separation of powers is advantageous (this question involves the issue of delegation of powers); and (2) what is the degree of freedom or independence that we ought to assign to each of the branches. The former question relates mainly to functional separation; the latter relates to institutional separation (separation of agencies). These questions are strongly interrelated in the sense that there could be a great deal of trade-off in different combined solutions to them.

Judicial review can serve as a good example. The conventional debate concerning judicial review is usually within the boundaries of the second question: should the legislature and the executive be controlled by the judiciary, and if so, to what extent? But this issue could also be raised in the framework of the first question. In this context we would first ask whether judicial review is part of the legislative or the judicial function. If it is seen as part of the legislative function, we will have to ask whether the allocation or delegation (Salzberger 1993) of the powers to participate in rule making to the judiciary is desirable or legitimate (Salzberger and Voigt 2002a).

The two extreme approaches to the second question are the independence approach or the pure doctrine of separation of powers, on the one hand, and the

checks and balances approach, on the other hand (Yassky 1989; Vile 1967; Marshall 1971, pp. 100–103). Analytically these two approaches can refer to the functional level, which is directly related to the first question about sharing powers (or delegating powers), or to the institutional and personal levels, i.e. the accountability of agents in each branch to those in the other branches, or to both levels.

It is possible, for example, to argue that an optimal structure of separation of powers would adopt the checks and balances doctrine with respect to the functional level, and the independence doctrine with regard to the personal level. This is the underlying idea behind the American form of separation of powers: on the one hand, every collective decision of one of the branches of government is subject to approval or review by the other branches. On the other hand, it is very difficult for one branch of government to remove any of the agents in other branches. Thus, in contrast to popular perception, the checks and balances approach is adopted in the USA only on the functional level, while independence (or pure separation) is adopted on the personal level. In contrast, in most European parliamentary democracies, there is no independence on the personal level. The members of the executive are accountable to the legislature and the Prime Minister has the power to dissolve Parliament. Likewise, appointment and promotion of judges is under the power of the executive. But there is relatively more independence on the functional level. For example, the legislature cannot review appointments within the executive, and legislation is not subject to a veto by the executive.[10]

The theoretical framework for analyzing these questions is, again, transaction costs and decision-making costs on the one hand, and agency costs on the other hand. A smaller degree of independence is inclined to raise the former costs but reduce the latter ones, and the optimal level may depend on variables including the size of the jurisdiction (Silver 1977), and the representation structure of each branch. Cyberspace, as indicated before, is expected to decrease both transaction costs or decision-making costs and agency cost. Thus, while the need for different branches of government to balance and monitor each other decreases, the costs involved in such conduct also go down. The rationale for monitoring and balancing weakens, and the increased decision-making costs are just a secondary result of the non-virtual state's need to tackle agency and monopolistic costs. Therefore, one may conclude that Cyberspace should ease the need for a strict mechanism of checks and balances between the different branches of government.

As to the first question about the degree and rigor of the desirable separation, the solution might be a result of a cost-benefit analysis, or, more

10 In most European countries legislation is subject to judicial review, but not by the regular judiciary. The reviewing body is a special constitutional court, which cannot be identified fully with the judicial branch of government.

accurately, a comparison of cost analysis. This analysis is the second stage in a theoretical hierarchical decision-making model. Let us take, for example, the function of rule making. In the first stage of this model, we have to decide on the merits of a substantive issue – whether a certain decision is desirable at all. In the second stage, we have to decide which of the three branches of government can make the decision most cheaply. The costs include both transaction costs (the costs of the decision-making process) and agency costs (Aranson, Gellhorn and Robinson 1982, pp. 17–21). In making general rules, we may expect that the legislature would be the most expensive with respect to transaction costs, but the least expensive regarding agency costs. This might not be the case with minor, secondary or more particular rules. If it is, one can conclude that separation of powers (or, rather, separation of functions) should not be absolute. Cyberspace enables new mechanisms for creating rules and it blurs the distinction between rules and particular decisions. Hence, again, its effect on a theory of the state level points toward a less rigid separation of powers.

Another factor, connected to transaction costs of decision-making, as well as to agency costs, which should be considered when deciding the degree of separation or the degree of functional independence, is the theory of collective decision-making. The theory of Social Choice taught us that majority rule, which is usually employed by legislatures in the non-virtual world, might bear the grim results of cycling or arbitrariness. One method for ameliorating this situation is to allow additional bodies to take part in decision-making, bodies that have different decision-making processes, incentives and representation structures. The legislative veto and judicial review in the American system can be seen as performing this task (Tullock 1981; Aranson, Gellhorn and Robinson 1982; Mayton 1986; Moe 1990; Salzberger 1993), and indeed some scholars argue that they were designed for this purpose.

The conclusion drawn from this consideration is, again, the rejection of the 'pure' doctrine of separation of powers, in favor of some degree of power-sharing and functional dependency. It is important that the institutional structure and division of powers would be specified in the constitution; otherwise they would be subject to the same problems of cycling and arbitrariness and thus unstable. A constitution ought to reflect unanimous decisions, and therefore is not subject to the problems of majority rule (Eggertson 1990, pp. 70–74). But if in the new Cyberian world we can change the dominant decision-making rule (also in the post-constitutional stage) from simple majority toward unanimity, the rationale for separation of powers is moot, and the crucial debate in the traditional world with regard to the desirable relations between the powers is much less significant.

A sharp analysis of the relations between the powers of government was offered recently by Brennan and Hamlin (2000). They show how 'strategic' separation of powers (pure separation) leads to exactly the opposite results

from the point of view of the population's welfare from 'competitive' (check and balances) separation of powers. While the former will reduce the quantity of the public goods supplied to increase government gains, strengthening the monopolistic powers of government and exploitation of the public, the latter will increase competition and improve the public welfare.

The interrelations between the branches of government can digress from the protective function to the productive function of the state. It is possible to advocate, for example, as some do, checks and balances within the protective state or with regard to 'ultimate power', and independence or pure separation within the productive state, or with regard to 'operational power'. In other words, it can be suggested that the checks and balances model be employed to enforce the initial contract, but within this contract each power be given full autonomy. Again, since Cyberspace is likely to blur the boundaries between the protective and the productive state, the need for co-existence of different types of separation of powers is diminished.

To summarize, separation of powers is the major tool of liberal democracies to compensate for the shift from unanimity to majoritarianism and from direct democracy to representative democracy. Cyberspace enables us to operate more direct democracy and more consensual or super majoritarian decision-making and rule-making processes. This, in turn, invalidates some of the rationales for separation of powers and diminishes the magnitude of others. As the structurally crafted and structured separation of powers in the physical world and especially, the establishment of mechanisms of checks and balances are costly themselves, the Cyberian state will need less structured separation and fewer checks and balances mechanisms. These elements will evolve naturally from the decentralized and the somehow anarchic nature of the new Cyberworld.

4. SUMMARY

We tried in this chapter to present the major difference between Liberal and Republican theories of the state as resulting from a presupposition with regard to individual preferences, and whether these are exogenous or given or internal to the collective decision-making process. Maybe Cyberspace should be a trigger for broadening the economic theory of the state, to incorporate such traditional Republican views of the state, which until now were considered as external to the economic theory of the state. This, however, requires fresh economic thinking and modeling, which is beyond the horizons of this chapter.

We still live under the governance of the Liberal Democracy paradigm. Netanel (2000, p. 407), summarizing the literature, defines Liberal Democracy as

> ...a political system with representative government elected by popular majority, the rule of law enshrined to protect individuals and minorities, and a significant sector of

> economic, associational and communicative activity that is largely autonomous from government control. It rests upon the principles of individual liberty, civic equality, popular sovereignty and government by the consent of the governed.

In this chapter we questioned this paradigmatic view. We examined what are the sources for majority decision-making and representative government, and we argued that on the basis of the new technological frontiers the same normative foundations may lead to a different concept of the state. In Netanel's framework we examined whether the principles of individual liberty, civic equality, popular sovereignty and government by the consent of the governed should direct us to a political system with representative government elected by popular majority. We argued that in the new world of Cyberspace the answer should be negative. Based on the same normative foundations, we must re-think the conventions of the existing concepts of the state.

The analysis and conclusions of this chapter can be seen as the result of the interplay between values, technology and the law. Our scientific methodology involved viewing values as fixed or pre-given, and examining, in light of these value foundations, how the changing technology affects the basic institutional arrangements regarding the state. It is important to note that the areas we overlooked are certainly suited to further research. We focused on the effects of technology on the desirable law, disregarding, for now, the opposite effect of the law (and values) on technology. This question was partly dealt with in other parts of this book (for example, the discussion of the Coase theorem in Chapter 8). We also overlooked the effects of technology on values. These are fascinating topics for a different book.