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2001

The Allocation of the Commons: Parking and Stopping on the Commons

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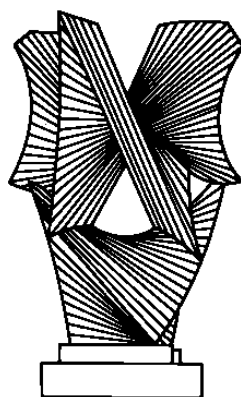
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Richard A. Epstein, "The Allocation of the Commons: Parking and Stopping on the Commons" (John M. Olin Program in Law and Economics Working Paper No. 134, 2001).

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CHICAGO

JOHN M. OLIN LAW & ECONOMICS WORKING PAPER NO. 134
(2D SERIES)



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**THE LAW SCHOOL
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The Allocation of the Commons:
Parking and Stopping on the Commons

by

Richard A. Epstein*

ABSTRACT

The economic forces governing transitions between different property rights regimes has been the source of extensive study since Demsetz's path breaking 1967 essay, "Toward a Theory of Property Rights." This paper offers first a general critique of that position, chiefly on the ground that it underestimates the practical difficulties of orchestrating efficient transitions in contexts where strong political forces are at play. Thereafter, the paper explores the movement among various systems that are used to allocate a particular public good, namely parking places on public streets. It examines both bottom-up systems that rely on analogues to the rule of first possession (in both clear and snowy weather) and top-down systems that use meters and permits as allocation devices. It offers explanations as to why the optimal rule will tend to vary with the density of traffic and generally opposes the use of special permits that limit occupancy to residences of certain neighborhoods, which effectively reduce the carrying capacity of a system of roads.

Introduction

The purpose of this Conference is to explore the implications of the short but profound paper on the origin and structure of property rights that Harold Demsetz published in the *American Economic Review* over 30 years ago.¹ The basic thesis of his article seems obvious today, but at the time it stimulated extensive investigation into several major topics, all of which I shall obliquely address in

*James Parker Hall Distinguished Service Professor of Law; the Peter and Kirsten Bedford Senior Fellow, The Hoover Institution. My store of anecdotes has been expanded by discussions of their own parking problems with Emily Buss, Steven Schwartz, Henry Smith, David Weisbach, and Judith Wright. Further tidbits in search of a general theory are welcome. Jeremy Goulka and Carl von Merz supplied valuable research assistance.

¹Harold Demsetz, *Toward a Theory of Property Rights*, 57 *Am. Econ. Rev.* 347 (Pap. & Proc. 1967). [Hereinafter cited as Demsetz].

this article. First, Demsetz articulated a theory about the nature and function of property rights, which are created to facilitate “the internalization of harmful and beneficial effects,” on the actor who makes decision, i.e. the owner.² Demsetz next explained how property rights regimes evolved in response to changes in technology and demand, typically in the direction of greater privatization. Third, Demsetz argued that this overall social trend was welcome because systems of private property generally outperform systems of common property, for when individuals internalize both the costs and benefits of their decisions, then they are more likely to advance the social interest as they pursue their own on personal advantage. It is for good reason that the law has created institutions whereby only those who sow may reap.

Demsetz thus takes a strong stand about the creation and transition of property regimes, and the relative dominance of a system of private property. In this paper, I wish to explore some of the themes that Demsetz developed both at a theoretical and practical level. First, I shall briefly review what I think to be the errors (or at least, the gaps) in the Demsetz presentation. Once these are laid out, I shall examine one limited and controlled system that shows the importance of filling in the details of Demsetz’s general scheme. My specific purpose in this paper is to offer some preliminary observations about the odd equilibrium between common and private property in the control of what has been termed curb rights³—that is, rights to use curbs on public streets. In some cases these curb rights are used for pick up and drop off of passengers, especially by commercial operations. But in this study I shall look at the right of ordinary owners of vehicles to park on public streets. It is possible to envision multiple regimes for the allocation of these spaces. By examining their different forms, I hope to shed light on an issue that Demsetz raised in his classic paper, namely what forces determine the transition from one regime of property rights to another.

My overall conclusions can be briefly summarized as follows: The Demsetz account has the character of a parable or allegory that identifies the beginning and end points of a journey. But at the ground level, the historical transitions from one system of property rights to another is always far messier than his somewhat idyllic portrait indicates. Sometimes the transition from on system of property rights to another is completed in happy fashion. But often the steps along the journey are more contentious, and more bloody, than Demsetz’s simple

²Id. at 347–50.

³For the use of the term, see Daniel B. Klein, Adrian Moore & Binyham Reja, *Curb Rights: A Foundation for Free Enterprise in Urban Transit* (1997)[Hereinafter cited as Klein, Moore & Reja].

account of property rights suggests. In other cases, the journey toward privatization is never undertaken, or never completed because mixed legal regimes or systems of common property, rightly understood and regulated, are preferable under Demsetz's own efficiency standard to pure private property arrangements. In yet other cases, property may oscillate back and forth between private and common forms, sometimes for good reasons but often not. The public choice dynamic, so dominant in human affairs, plays a far more powerful role in the definition and transformation of property rights systems than Demsetz attributed to it. In short, Demsetz paints too simple and too optimistic an account of property rights.

In order to illustrate this point concretely, I take a preliminary and impressionistic look at one commons that often lurches uneasily between various legal regimes. Thus I take a look at the rules and practices that govern an artificial common—public streets and highways—in order to address the question of how private rights, chiefly those of parking, stopping, loading and unloading, are allocated. These property rights may appear to be small in the grand scheme of things relative to the disposition of land, water and other natural resources. But parking is in most communities one of the most difficult and politically explosive issues to deal with. Anyone who has ever witnessed the proceedings of a local planning commission knows how pitched the battles over parking can become, and for good reason. A parking place in a downtown high-rise today can sell for between \$40,000 and \$50,000, or for around 10 percent the value of the condominium unit to which it is attached. Parking places on public streets are no doubt less desirable than parking places in enclosed buildings, but even if the “fee simple” value of a public parking place were half that of a private parking space, there would still be a great deal to fight over in determining who owns what.

The situation with parking places is hardly unique. The battle over the spectrum, for example, involved the competition between a top-down system, first initiated by 1912 legislation that divided its use between government (chiefly naval) and civilian use.⁴ That top-down system at various times, and for various purposes, has allocated spectrum by a simple command and control mechanism, by the use of complex licensing procedures for broadcast stations, and by various forms of auctions, as for personal communications systems. Yet at the same time a bottoms-up system, which operated by persistent occupation and use of a given

⁴Radio Act of 1912. Act of Aug. 13, 1912. Ch. 287, 37 Stat. 302 (1912), (repealed by Communications Act of 1934, ch. 652, § 602(a), 48 Stat. 1064, 1102).

frequency briefly surfaced before it fell under the weight of federal legislation.⁵ In dealing with parking spaces, we see some variety in allocation, with bottoms up systems, governed by some variation on the first possession system, which is awkwardly meshed with a top-down system that uses various forms of permits and administrative controls. The purpose of this paper is to examine the interaction of these various systems to see how various forms of private use rights arise on public roads and highways. In making this examination, it becomes quite clear that the political and individual forces that are unleashed often lead to results that are hard to defend from any social point of view, but which are equally difficult to dislodge by the available political means. The allocation of common resources does, as Demsetz notes, often lead to highly inefficient allocation of resources, but often because of too much privatization, not too little.

The organization of this paper, then, runs as follows. Part I contains a brief account of some of the strengths and weaknesses of the Demsetz story of the origins and superiority of private property. Part II offers an account of the bottoms-up methods of obtaining curb rights on public roads and highways. Part III discusses the top-down systems of curb rights under this system.

I. Demsetz's Analysis of the Creation and Transition of Property Rights

Demsetz's treatment of property rights begins with his interpretation of Eleanor Leacock's account of the evolution of property rights that the Montagnes Indians organized for their territory. In the beginning the land was held in common, and the Indians operated under an implicit rule of capture, which awarded any given animal to the hunter who killed or trapped it, in line with the common law rule on the subject.⁶ For long stretches of time this rule proved stable. The demand for furs was limited to the uses that tribe members made of them. The dangers of overhunting were therefore limited. It did not make any sense therefore for the Montagnes to adopt a more costly system in which each hunter (or group of hunters) was granted exclusive rights to hunt in particular territories—rights that could have been created for animals which were themselves territorial. Any gains from (arguably) more efficient allocative rules were more than offset by the higher administrative costs needed to make them work. It was but one application of the general trade-off between high administrative costs and accurate economic incentives that occur throughout the

⁵See *Tribune Co. v. Oak Leaves Broadcasting Station*, Cong. Rec.-Senate 215-219 (December 10, 1926), discussed in Thomas Hazlett, 33 J. L. & Econ. 133, 148-152 (1990).

⁶See, e.g., *Pierson v. Post*, 3 Cai. R. 75, 2 Am. Dec. 264 (N.Y. Sup. Ct. 1805).

length and breadth of the law:⁷ when intensity of use is low, simple property rights systems with low administrative costs will generally do as well. It is only when the intensity of use increases that more complex legal regimes can pay their way.

But that equilibrium position changed once the French became buyers of furs. Now demand was no longer limited to local consumption, but spiked mightily as furs made their way into the salons of Europe. In the absence of a built-in limitation on demand, the loss from overhunting became so large to invite a transition in property rights regimes: it now became sensible for the Montagnes to bear the costs of delineating and defending territories, which they did. Demsetz's great insight was how the increase in the intensity of uses justified the greater administrative expenses of transition to an alternative property rights regime that responded to the allocation problem—here by setting up hunting territories. It now became worth while, in Demsetz's terms to take steps to internalize the externality, and so the regime of property rights shifted from the simpler one of capture to the more complex of territories.

The same story can be told with other resources. The original regimes for the ownership of water, for example, allowed the individual who removes water from the ground to claim ownership of it, no matter what the inconvenience to others.⁸ In part the rule has a practical justification, for it is more difficult to monitor the movement of water underground than it is, by way of comparison, to see whether flowing waters have been unduly appropriated by a single riparian.⁹ But when the levels of dislocation get too high, these so-called individualistic systems are replaced, often with real struggle by rules that call respect the “correlative rights” of other surface owners.¹⁰ The evolution is not confined to Anglo-American systems, for the same shift has been observed under Japanese water law, and for much the same reasons.¹¹ And a similar history

⁷For discussion see Richard A. Epstein, *Simple Rules for a Complex World* 30–36 (1995).

⁸See, e.g., *Acton v. Blundell*, 152 Eng. Rep. 1223 (Ex. 1843).

⁹*Id.* at 1233–34. The idea of monitoring costs was well understood at an intuitive level by nineteenth century judges.

¹⁰See William B. Stoebuck and Dale A. Whitman, *The Law of Property*, Third Edition 429 (2000). See also, *Keys v. Romley*, 412 P.529 (Cal. 1966); *City of Pasadena v. City of Alhambra*, 33 Cal.2d 908 (1949), cert. den. 339 U.S. 937 (1950); *Katz v. Walkinshaw*, 141 Cal. 116, 70 P. 663 (1902), rev'd 141 Cal. 116, 74 P. 766 (1903). Note that *Keys* is quite explicit in its assertion that the shift from rural to urban use requires a reexamination of fundamental doctrine, after which it adopts a vaguish test that requires reasonable use both by upper and lower riparians.

¹¹See Mark Ramseyer, *Water Law in Imperial Japan: Public Goods, Private Claims, and Legal Convergence*, 18 *J. Legal Stud.* 51 (1989)

could be told of the evolution of rights in oil and gas, where once again the greater intensity of use required the adoption of rules (say of pooling or unitization) to deal with the correlative effects on others.¹²

The battles over the proper allocation of property rights in water, or in oil and gas are of course well known. What is odd about Demsetz's account is that it only looks at before and after snapshots of the system of property relations, and assumes that the creation of the new system did not introduce new problems of its own. His account does not address the question of how the transition took place, i.e., what practices were used to resolve disputes when two or more tribal groups or members lay claim to the same territory. Nor did it explain what was done when the animal territories did not map precisely onto the human territories, so that the habitat of some fur-bearing animals, although stable, lay partially within the hunting territories of two or more tribes. Because Demsetz did not present a detailed account of the transition, he necessarily left unclear the division of gains and losses from the reallocation, and the potential political consequences, often explosive, of that transition. Did all tribal individual find themselves better off after shift? If not, which ones gain, and to what extent and why?

Until these questions on the transition rules are answered it is hard to decide whether the transition was worth while for being carried out or not. It could well have been some kind of ruse in which massive redistribution of power from one group to another was carried out under the guise of creating a more efficient alignment of property rights. That result is not confined to resources such as water or oil and gas. It routinely happens today when zoning regulations restrict the use rights of many in order to entrench the monopoly power of some, by blocking entry into markets by owners of nearby lands. Nothing makes it clear that illicit redistribution did not happen with the Montagnes Indians. All that can be said with confidence is that the greater the net gains from the transition, the greater the dislocations ought to be tolerated along the way. But this is far from noting which transitions are efficient and which are not. No global account can answer that question. At the positive level, what is needed is a much more precise step-by-step analysis of the shift, taking into account the position of those who opposed it as well as those who defended. At the normative level is needed

¹²See, e.g., *Ohio Oil Co. v. Indiana* (No. 1), 177 U.S. 190 (1899) Note that while this decision did pick up the need for correlative rights in oil and gas, it then missed the public choice dimensions of the case, which allowed the in-state gas producers to profit at the expense of out of state oil producers. For discussion, see Richard A. Epstein, *The Modern Uses of Ancient Law*, 48 *S. Carolina L. Rev.* 243 (1997).

some metric which allows judgments to be made about the desirability of the transfer when the overall gains appear to be positive, but the distribution of these gains appears to be skewed. On that question, it seems as though the best position is to require compensation to be provided for losers from the state-created alteration of property rights, except in those cases where (a) the overall social gains from the change are enormous and (b) the costs of finding and compensating the losers are high relative to the losses sustained. Here again, it seems as though some early cases inched toward that position, as for example by holding that the shift from riparian to prior appropriation did not require any compensation of the losers given the “imperative necessity” for the change.¹³

The second difficulty with Demsetz’s position follows from the first. In a manner that parallels Locke’s account of property, Demsetz is too confident from this one parable that the efficient transition in property rights moves us from common to private property. He thus writes:

Suppose that land is communally owned. Every person has the right to hunt, till, or mine the land. This form of ownership fails to concentrate the cost associated with any person’s exercise of his communal right on that person. If a person seeks to maximize the value of his communal rights, he will tend to overhunt and overwork the land because some of the costs of his doing so are borne by others.¹⁴

This account is incomplete for a number of important reasons. In particular, it assumes that it is possible to eliminate all externalities by creating the proper regime of property rights. But the real question is in fact more difficult. The total elimination of these externalities is always an impossibility: externalities occur in too many forms and styles. The hard question is what rule would minimize them, relative to the costs of their control. Thus it is the uniform rule today that the creation of positive externalities is common under a system of private property. If A decides to plant a beautiful garden that is visible to all, both his neighbors and the public at large will benefit, even though they cannot be required to contribute a dime toward its maintenance. In general the efficient

¹³One such implicit judgment is found in the instructive case of *Coffin v. Left Hand Ditch Co.*, 6 Colo. 443 (1882). In that case the riparian system along the Colorado river would have allowed riparians to control water running through gorges below while blocking out the prior appropriators who actually had invested in facilities to take the water out of the river for productive use. Note that it would be quite impossible to figure out how much compensation was owing to each of hundreds of riparians who could have exploited the water with difficulty, if at all.

¹⁴*Id.* at 354.

solution is one that encourages by social pressures other neighbors to engage in similar acts of beautification, but not to tax them for a benefit that they enjoy. To be sure, private subdivisions can in some cases counter this problem by imposing special assessments on all owners to maintain common areas, or by imposing strict aesthetic standards on private use. But the elimination of these externality does not prevent the creation of yet another: people who own property near the subdivision can free-ride off of the favorable environment that it creates. The only way to internalize all externalities is to have resort to the common ownership that Demsetz deplors. And it in this case that system of property rights so awkward and unresponsive to its members that other problems are created. In the end therefore whether we choose private or common property forms, we must tolerate some externalities.

Third, the Demsetz model assumes that the only two kinds of property arrangements that can be devised are an open commons, utterly without restrictions on use, and a system of private property. But in fact it is possible to devise multiple intermediate legal positions which under some circumstances at least will outperform systems of pure private property. Thus one possible mode of control treats a commons as open to some but not all individuals. Fields could be open for grazing only to members of a given community, but not to outsiders. That partial exclusion marks the field as private, after a fashion, but does not resolve the question of how use is to be allocated upon eligible community members.

To be sure, in some cases, the problem is not really important: I am not aware of any condominium agreement, for example, that imposes limits on the amount of time that association members may lounge in the lobby (although it is implicit that none are allowed to sleep there). But when the question comes to grazing animals in the common, some metering system is needed to determine how many animals each user may introduce into the common ground. That allotment could be determined by the number of acres (adjusted for quality) that each cattle owner contributes to the whole; or it could be determined by a set of fees that some cooperative association charges for the admission of animals. But what is clear is that keeping the animals in a commons is more efficient than creating tiny compartments for all the animals that track the boundaries of agricultural holdings.¹⁵ The increase in the cost of fencing, and the reduction in space for the

¹⁵These fee arrangements have to be limited, for if they could meet the problem completely, then there is no need for a commons at all. A single owner could operate some kind of facility and charge fees for entry. The reason that this fee system could not work alone is that the lands in question may well have reverted to private ownership during the growing season when animals

cattle create disadvantages on both the cost and the benefit side. The net effect is that a system of private property owners would opt to create voluntarily a commons. The secret of their success is to limit the class of uses to one standardized use—grazing—so that it becomes possible to monitor both the contributions and withdrawals that each party makes from the common asset. There are to my knowledge no commons that allows people to “till or mine” the lands. For those specific uses private property dominates just as Demsetz says. But the common solution, as created by custom or private contract, can easily dominate so long as it addresses a constrained set of uses. It becomes an empirical question, played out on multiple margins, whether private or common uses dominate.

II. Curb Rights on Public Roads: Bottoms-Up

The governance issues raised by traditional hunting and agricultural commons clearly arise in somewhat different guises in connection with public highways and roads. At one level, it is possible to see how these roads are the product of voluntary private interaction. The normal subdivision starts under the ownership of a single real estate developer whose objective is to maximize the gain from sale obtainable by selling off individual units in the subdivision. These private owners, even within gated communities, know it becomes necessary to create an internal system of roads that allow all members to gain access to each other’s home and to the larger community outside. The roads in question will be typically restricted to transportation purposes, and the question often arises about the extent to which individual unit owners may utilize the side of the road for parking, either for themselves or their guests. Here again the limited and voluntary commons can determine who can park on the local streets and for what hours. The situation involves common property created by voluntary agreements.

The situation becomes, however, much more complex when the question turns to the allocation of curb rights along public streets and highways. The obvious point is that no longer can any society rely on the single common owner to organize the system of property rights in ways that presumptively maximize the use of this space. Now other systems of allocation have to be used to decide whether, and if so, what forms of parking will be allowed on public streets. The problem here is not confined to those cases in which people simply wish to park private vehicles along the side of the road. At a broader level the question here

were up in the hills. At this point, the original owners continue to have a stake and use for it. On the mix of commons and private system, see Martin Bailey, *Approximate Optimality of Aboriginal Property Rights*, 18 J. L. & Econ. 183 (1992).

also covers the case in which commercial carriers who use the public highways can stop at various places in order to pick up customers for carriage to another location. This issue raises the question of whether the state with its monopoly power over the highways is in a position to dictate that one and only carrier shall have the right to pick up and drop of customers along some predetermined route. If so, then the state will be able to extend its monopoly position of the construction of public roads to the creation of transportation monopolies along the roads.

Yet it seems clear that this position is most unwise as a matter of policy. The state runs the system of public highways in order to create one single network that allows any person to move from any location on the transportation grid to any other location. The monopoly of the state is intended to counteract the Balkanization of transportation services that would necessarily arise if ownership of the highway system were distributed among several private parties, each with the absolute right to exclude. But there is no danger of Balkanization to allow rival carriers to operate within a competitive environment on the public roads. Hence there has been at least some fleeting recognition in the courts, in connection with the so-called doctrine of unconstitutional conditions, that makes it improper for the state to use its power to protect established firms against competition from new entrants,¹⁶ as by banning them to use public roads. And the proposals to have markets in curb rights represent an effort by economists to superimpose a competitive market in transportation services on the state monopoly over public roads.¹⁷ The issue is surely critical, for there are all too many places where public transportation companies, for example, are granted a legal monopoly when private jitney services are not allowed to compete with them.

¹⁶See *Frost & Frost Trucking v. California Railroad Comm'n*, 271 U.S. 583 (1926), where the court in striking down a rule that required all private carriers to act as common carriers noted that “the act, as thus applied, is in no real sense a regulation of the use of the public highways. It is a regulation of the business of those who are engaged in using them. Its primary purpose evidently is to protect the business of those who are common carriers in fact by controlling competitive conditions. Protection or conservation of the highways is not involved.” *Id.* at 591. Note that the last reference is meant to allow the state to tax trucks that use public highways so that they cover the cost of the damage that they inflict on the road system. Note that the interventionist mode in *Frost* quickly faded to allow the legislature massive deference on economic matters. See *Stephenson v. Binford*, 287 U.S. 251 (1932), where Sutherland, J. effectively gutted his earlier decision. For a more detailed analysis, see Richard A. Epstein, *Bargaining with the State* 162–70 (1993).

¹⁷See Klein, Moore, Reja, *supra*, note 3.

In this article, I do not examine the role that a sensible system of curb rights can play in organizing a competitive industry. Rather, my focus is to see how rights to use the curbs are allocated to the owners of cars and other vehicles, not for pick up and drop off of customers, but simply to park their vehicles. In addressing this everyday occurrence, it seems clear that once a car has parked alongside the curb for some limited period of time, we have developed some system of quasi-private property rights along the public way. The issue is what modes of allocation are best able to deal with this particular private use of what looks to be a public resource.

In this regard, development of legal and social practices often follows the path taken for other resources that are in some sense held in the commons. The great advantage of bottoms-up rules of first possession is that they are cheap to administer, and do not require the creation of any complex state administrative practice. Just as is the case with wild animals, and with oil and gas, it is no surprise that the first rule allocates a parking space to the first parker, as it were. The closeness of the analogy is made evident, for even the ambiguous cases fall at the same point in the continuum as we move from one setting (e.g., wild animals) to another setting (e.g., parked cars). In many ways, for example, the first possession rule in parking cases exhibits certain of the characteristics found in Pierson v. Post. In Pierson, the Court refused to adopt what appeared to be the customary “hot pursuit” rule used in chasing foxes, but held that as a matter of law ownership required the owner to capture the animal, a term that could be extended to cover only those animals that had been wounded by a pursuer who was ready to pounce on them.¹⁸

My own sense of casual empiricism is that, wholly outside of litigation, we do adopt this rule for curb spaces. Thus the individual who drives just past a parking place in order to back in normally expects that no person who comes on the scene a moment later will try to occupy the space by entering it in drive from the rear, before the initial claimant has the opportunity to back up into the space. In dealing with animals, a strong case can be made that hot pursuit is a more efficient rule (at least for foxes) than the capture rule that carried the day in Pierson. One advantage of the hot pursuit rule is that it protects the labor of the initial chaser by allowing him a clear shot to catch the animal in question: the alternative rule encourages freeloading, as “saucy intruders” can carry on the chase after the initial hunter and his prey are both exhausted.¹⁹ I have little doubt that members of the same hunting party clear the way for each other, not only to

¹⁸See Pierson, supra note 6, 3 Cai. R. 175 at 179.

¹⁹Id. at 181.

protect initial labor, but also to avoid the serious risk of collision that would arise as they converge on a single target. (Indeed one reason why the conflict may have arisen in Pierson is that the hapless fox got trapped in a well, a setting in the usual hunting dynamics of hot pursuit did not apply.) The same rule seems to make sense for hunters from different parties, which is why it becomes necessary to use custom to supplement contracts in matters of this sort.

In dealing with parking spaces, we can make the same kind of argument. To allow the second party to occupy the space first will have at the margin a negative effect on the behavior of the initial driver. He will now have an incentive to enter front-first in the space in order to perfect his right against outsiders. The legal (or social) norm that recognizes the hot pursuit right thus facilitates the adoption of a safer and more convenient mode of parking. Since in the long-run it is hard to identify any discrete group of early or late parkers, this is one case in which the customary rule, which places all comers behind the veil of ignorance, appears to be a sensible (but not indispensable) modification to the first possession rule with parking places on the public street. My guess is that private associations would adopt this rule as well, if the matter ever came to a head.

The hot pursuit norm will not function as smoothly when it is unclear just who arrives first at a particular space. Here the issue is not so likely to take place on streets with parallel parking. But it can happen on streets with angled parking, or more commonly in parking lots, where there is a high volume of in-and-out traffic. The usual sociobiological logic behind a first possession rule is that all individuals have a strong, innate instinct to yield to others who have taken prior possession. Yet by the same token, they have an instinct to fight when they think that inchoate possession is theirs. Those conflicts can arise when two people come at the same spot from different directions, and each thinks that he got there first. All too often these confrontations result in standoffs that block traffic for everyone else around. But there is little by way of system design to eliminate this annoyance unless and until one moves to a system of central assignment of slots. (The parallel here is to the bakery which serves customers by number when crowded even though they just take people in order during slack periods of business.)

This same logic of hot pursuit, whatever its limitations, does not justify any further extension of the inchoate right—i.e., a right to perfect possession after the completion of some well-specified action. Thus with respect to wild animals, no one has advocated a rule that allows the first person to see an animal to have the exclusive right to hunt, or even the first individual to canter off in the direction of

the fox. It is simply too difficult for everyone to obtain notice of who has priority under either of these rules, and thus leads to endless conflicts that are largely avoided by the hot pursuit rule, under which it is generally evident to all comers once one hunter has begun the chase in earnest. But with parking places, certain individual sometimes seek to extend the period of inchoate possession. One argument that usually loses, without conflict, arises when a person going in the wrong direction on a public street spies the space and seeks to turn around in an alley to claim it before a second auto going in the right direction comes up and claims it. But confrontations do happen when would-be parkers ask a family member or friend to stand guard by occupying the parking place until they are able to arrive—sometimes only for a minute but often for longer periods of time. The practice here is practically limited because it is costly to occupy a space in this fashion. Here again my weak anthropological sense is that this practice is frowned upon but tolerated even though the inefficiency of the practice, however, seems clear enough. People only stand in parking spaces when these are at a premium. The practice therefore necessarily reduces the carrying capacity of the road and often leads to ugly confrontations when frustrated drivers seek to edge their way into parking places defiantly occupied by their redoubtable holders. I have little doubt that if this matter were ever brought to litigation, the first driver to arrive would win against the prior surrogate. But the stakes are usually so low that this has never happened.

Along these lines, another dubious practice (of which I was once the victim) was for a driver to position himself at the rear of a line of parked cars along Columbus Avenue, going north, waiting for the first one to become empty, and then to pounce on the space in question. (He could engage in that practice because traffic was light and Columbus Avenue in downtown Chicago is wide enough to allow other cars to pass by unimpeded.) So as I stopped to back into the spot on the east side of Columbus Avenue, this fellow drove forward, and blocked my entrance with his car, and in a short-conversation claimed a super-priority for the entire block by having waited first at its south end. I sheepishly backed off, as much in confusion and fear as anything else.

In this tale of woe, however, there was a sense in which he surely had a point that I had become, without knowing, a queue jumper from this rather improbable scheme for taking possession of the next available space. Thus his rule insures that the person who has waited the longest gets the space. The alternative rule in effect requires the first comer to guess which space will open first, and then to suffer the indignity of a Johnny-come-lately who waits next to some other spot that is first vacated. On the other hand, his rule does not do well if two or more cars wish to wait for spots, and creates genuine instability if some

other aggressive driver should decide to position himself just in front of our paladin in order to claim a super-priority (minus one car) for himself. Owing to the restrictive conditions under which it is even plausible to claim the super-priority, and the counterstrategies that it can provoke, it is not surprising that this practice is not common enough to give rise to some customary response.

The problem of ordering individuals by time of entry is, however, an important one, which often does provoke an instrumental response in other cases where a proprietor has it within his power to organize a queue. Thus for airlines and movie theaters, for example, in periods when multiple agents serve only a few customers, people form separate lines for each. That situation, however, proves unstable as the number of agents increase and the size of the lines gets longer, for now A gets generally miffed if B, who arrives after him, gets served first by being lucky enough to have gotten on to the end a faster moving line. Now as the intensity of the use increases, most airlines and theaters deploy metal stands and ropes to organize a single line for waiting and, thus, dispense with separate lines for individual customers. The additional costs for organizing this system of property rights insures that the first-come, first-served rule holds and thus eliminates the resentments that arise when the early comer gets served after the late arrival. In this setting, some owner takes charge of the situation, so we do not have the unilateral assertion of power by a single individual when no one else has notice that the rules of the game have changed. The problem with the super-priority driver is that his principled grievance cannot be translated into a visible and workable institutional structure. Note too that this single line structure depends critically on the fact that the one line does not take up any more space than the several lines. That condition is not satisfied when cars back up behind toll booths and there it is common enough to see later comers on a fast moving line get through the booth before earlier arrivals who have the misfortune of getting on the slower line. But since a single line of cars creates a real traffic jam, this indignity has to be borne. Once again the details matter enormously in setting the optimal allocation rules.

There is a second deviation from the first possession rule that carries even greater weight with parking places on streets. In dealing with foxes or other wild animals, it is quite clear that the first possession rule, whether or not modified by exceptions for mortal wounding or hot pursuit, gives the successful contestant absolute ownership of the chattel in question. And there is really no good reason why this should be otherwise. It is hard to see what is gained by allowing only limited access to wild animals, especially if hunted for their meat or their fur. Indeed in all legal systems the concept of "possession" is always stretched to hold that an individual retains possession so long as he has not been

dispossessed by another.²⁰ It is just this rule that allows people to leave their homes secure in the knowledge that they will still be entitled to use trespassory remedies to recover that property from an interloper who enters in his absence. But parking places on public streets, like places marked by towels along public beaches, offer the successful contestant only a “user” interest in the parking space: it remains his only so long as he continues to occupy it. But once he leaves the spot it reverts to the common for the next taker on similar user-based terms.

This truncation of the temporal element exhibits a powerful economic logic because any other system will necessarily limit the carrying capacity of the road by conferring permanent rights to those individuals who get first dibs, which becomes a real problem, as we shall see, in inclement weather, when dibs do matter. The upshot of course for that use is that the space on public streets must remain idle for long periods of time, just as though it were spaces in a private garage. Yet in dealing with parking spaces we do not think that it is appropriate to award any fee simple interest in the property because of the labor expended for its acquisition, of which there is basically none. The simple first possession rule, giving a right of use only, therefore increases the carrying capacity of the road. Nor does it carry with it any odd distributional consequences. Every driver has multiple plays in the parking game. No one identifies himself as a systematic early or late arrival on the public roads. The rule therefore that optimizes the use of the road probably works to the advantage of all individuals. We should expect therefore the factional fights that arise when the various contenders can peek through the veil of ignorance and determine their own spot.

This insistence of limited times is not unusual in dealing with other forms of commons. A similar rule is followed, for example, with spots on beaches and besides pools, both on public and private beaches. The customary rule allows the early arrival to claim a spot or a chair, by marking it with a towel. That space is generally respected for the day, even if people come and go into the water or back off the beach. (Sometimes a long absence results in a gradual displacement from space.) But come evening all towels are removed, so that priorities must be established afresh on the next day. The new competition is easy to run on the empty beach or by the empty pool. Generally, it is likely that the earlier users on each particular day will, all things equal, make more intensive use of their place, so that this truncated first possession rules does a tolerable job allocating space in this commons: once again it is just too costly to set up a price system.

²⁰For discussion, see Richard A. Epstein, *Possession*, 3 *Palgrave Dictionary of Economics and the Law* 62 (1998).

A similar result is found in connection with property rights in news: in Associated Press v. International News Service²¹, which give the gatherer the exclusive right to use his own sources, as against his direct competitors only, for the period that last no longer than one news cycle, typically a day. That rule protects the return of the news service that collects the information, but it allows its accounts to be relied on thereafter by the wide range of users, including both historical researchers and direct competitors. Information always provides a conflict between incentives to gather (which require privatization) and gains from broad dissemination (which require the creation of a knowledge commons so that information can be utilized at zero price). The mixed solution of limited protection created under the common law rule seems on balance to be superior to either of two extremes: a commons in which anyone can use the information once it is published, and a highly restrictive rule, which allows endless free-riding on the information collected by others, and the creation of a de facto perpetual monopoly in information by virtue of its initial creation. As a first approximation, the rules in question look tolerably efficient.

Dibs in the Snow. The allocation of parking spaces on public streets becomes far more complicated in heavy and permanent snow. Just this past winter in Chicago, it was commonplace to see dug-out parking spots on side streets, which were then marked with chairs, tables, or stools that were (presumably) placed there by their owner as a sign that the parking place had an owner who held a right to return to the spot at any time. In the local language the party who dug out the spot had “dibs” on the space. That term is not even contained in my Funk & Wagnall’s dictionary, but its meaning is clear to anyone who has ever had to allocate goods of similar kind within a group. One player will say that he “has dibs” on the green croquet ball; another will say it for the white. The system in effect grants individual rights against the collective to those individuals who self-select out. This widespread practice generated a fair bit of newspaper commentary.²² It has been nobly defended by none less than Chicago’s own Richard M. Daley in words that should give warmth to defenders of the labor theory of value: “I tell people, if someone spends all that time digging their car out, do not drive in that spot. This is Chicago. Fair warning.”²³ And it has been attacked by Stud Terkel, Chicago’s long-time urban activist who strong

²¹248 U.S. 215 (1918).

²²See, Jonathan Eig, Chicago Claim Jumpers Are Likely to Have Their Cars Vandalized, Wall Street Journal, January 11, 2001; Fran Spielman, Furniture on the Street? Snow More! City Begins to Remove Objects to Save Spaces, January 11, 2001.

²³Quoted in Mark Brown, Time to Jettison Chicago’s Space Junk, Chicago Sun Times, January 11, 2001, at A1.

communitarian commitments led him to observe of the dibs rule: “It’s a commentary on the growing oafishness in our lives.”²⁴

The use of dibs for parking spaces is, of course, more complex, as shall become obvious. But for the moment it is useful to start with an obvious point about the negative effects of this system. This rule necessarily reduces the parking capacity of the street at a time when gathered snow makes parking spaces especially difficult to come by. Yet the practice seems to be widely tolerated, if not exactly encouraged, and violators of the norm can be punished by force. By the same token, it seems clear that this practice does not take place on main streets and boulevards, as these are quickly plowed by the Sanitation Department, and one proposal to eliminate the practice calls for prompt clearing of all side streets.²⁵ But in the absence of this showing of centralized power, what explains these persistent outcomes on the side streets where the public force is less in evidence?

The analysis starts with the obvious. It takes time and effort for anyone to dig out the spot. No one will therefore undertake this particular case unless he has some assurance that he will internalize the future gain from the activity. That gain will be too small if it is confined to the ability to use the parking space for a single time (just as it will not take place if it is known that the street will be promptly plowed and cleared). Hence what is observed is a tradeoff not dissimilar to that found in the patent and copyright law. The initial digger of the spot is given a limited monopoly for its use—that is one that lasts only until the snow melts or is cleared away—as the quid pro quo for clearing out the space in the first place. At this point, the question, as with patent and copyrights is, what ought that duration to be?

Under current practice, Chicago style, it appears that the property right lasts as long as the dug-out space retains its physical integrity—that is, until the street is cleared or the ice and snow melts away. There is, of course, no natural necessity that leads to this determination. It is easy to make arguments that the proper social position is one that gives the digger exclusive use of the space for some more limited time, say a week, after which it then returns to the public domain. That kind of fine-tuning is a hallmark of the law of patent and copyright, where the statutory periods of protection are subject to explicit compromises. But the customary world of dibs, which results from loose social interactions, has no place for these refinements. One difficulty is that there is no

²⁴Eig, supra at A1.

²⁵Metro Briefs, New Snowplowing Plan in the Works, Chicago Sun-Times, February 10, 2001.

centralized system (akin to the registration of patents or copyrights) that tells us when the meter should run. A second is that no collective decentralized mechanism that can set the shorter time period exists. In a world of second-best, there is no need to set these spaces because everyone can easily understand that the right ends when the space disappears. So the obvious focal point dominates over lesser solutions that, however efficient, are also unattainable.

A similar system of allocation seems to be at work with respect to these dug-out parking spaces. Thus it seems to be a common practice for homeowners to shoo away other individuals who try to dig out the snow near their front door. They seem to be able to reserve the first right to dig it out for themselves. The rule that lets each person dig in front of his own front door does remove at least one potent source of conflict. Without further investigation, however, it is not clear what happens if that homeowner cannot use the space himself, say, because he does not have a car. Is he allowed to designate someone else to dig the spot—and to charge for that privilege? Does the space become available to the folks next door? Does it revert to the commons so that any one can take the space? As usual, customary norms are stronger in dealing with the recurrent clear cases than with the marginal ones.

The complete design of this property regime requires more than rules that specify the space and time of the property right. Creating a system of dibs does not settle the question of who gets to dig out the space in the first place. In this regard one possible solution is to treat the highways as though they were open commons, so that any person could dig out any space at any time and claim it as their own. Anecdotal evidence, however, suggests that the property rules here do not function in this fashion. It will just not do for someone on Avenue A to dig out a space on Avenue B and claim it as his own, at least if the space abuts a residence located on Avenue B. Rather, the system seems to resemble the more limited commons that are found in connection with riparians rights to water, and surface owners rights to drill for oil and gas. In the former case, under both the natural user and the reasonable user systems, only riparians have the right to take water out of the river, and then they can only remove from their own land—not at some other place along the river. Similarly, under oil and gas law, oil and gas in the ground may move in mysterious ways under the lands of several owners, but only surface owners can drill for the oil and gas, and then only from their own property, straight down. Both these systems use these spatial restrictions to prevent ugly confrontations that would otherwise arise if two or more individuals were free to take out either water or oil and gas from the same location. Depending on the size of the plots in question, these allocation rules

also serve as (weak) devices to counteract the overconsumption problem that Demsetz identified with common property.

This ambiguity over who gets the right to dig parking spaces helps explain another part of the overall picture—which is why these dug out spaces do not appear on every side street in Chicago and other similar towns. But again some casual empiricism seems to supply an answer. The parking places are likely to be cleared out on those streets with single-family homes where, when the roads are clear, people are usually able to park in front of their homes during the evening. As noted, the one-to-one correspondence between owner and space helps solve the problem of who gets the right to clear out the spots in the first place. On small streets, with apartment houses, that one-to-one correspondence between residence and curb space is broken. Parking spaces are at a premium in normal times, so that people frequently have to park some distance from their homes. In these settings it is more difficult to determine who holds the right to dig out the parking space in the first place, so that, where parking is congested, the uncertainty of ownership rights *ex post* will dim the efforts to create these spaces *ex ante*.

Once the spaces are dug, it becomes necessary to enforce the claims that diggers have against the rest of the world including those who do not know how and when the spots were cleared. We have some diffuse but irrefutable evidence that efficient enforcement takes place; after all, we know that parking places continue to be cleared out after heavy snowstorms, and that the stools and chairs used to mark these places often remain in these spaces for long periods of time. That said, it has to be also clear that most ordinary people are willing to respect these parking places, for otherwise the system would come tumbling down of its own weight. The question is what conditions tend to facilitate the survival of these systems. One obvious condition is that for the most part the main users of the side streets are the people who live on them. These individuals know each other's automobiles, and are inclined to adopt a system in which they, as insiders, get a positive return from the general action. The insiders can, moreover, monitor not only their own spaces, but those that are nearby to identify the interlopers who might seek to beat the system. Informal cooperatives, not just individual behavior, helps lend stability to the overall venture.

It is equally clear that a system of differential sanctions is invoked against those individuals who are brazen enough to occupy the parking spaces created by others. Here the folklore in Chicago (both North and South side) is indisputable. The owner of the spot will respond with force to any individual

who parks his car in the dug-out space. Usually, the sanctions are invoked in stages. Thus for first offenders written warnings may be left in windshields, or bricks may be placed in cleared out spaces to warn away would-be interlopers. Perhaps neighbors offer warnings to keep the outsiders at bay. Once the invasion takes place is common to hear stories of cars that have stickers placed over the windshields, air let out of their tires (not preferred because now the cars can't be moved), dents on the fenders and doors, and even side mirrors and windows smashed in with bricks.²⁶ The cars remain in the space for at least some time so that the message that offenders will be punished is hardly mistaken and the car in disarray offers a warning to the rest of the world, if such were needed. But it could hardly be otherwise. Clearly, we should expect some challenges to the dibs system, and unless these were quickly repelled, the entire system would fall of its own weight.

Dibs systems have also overcome a second difficulty. The thug cannot be allowed to take over a parking spot by the same tactics used by owners. Once again, the very fact that the system continues to operate offers powerful evidence that the frequency of interlopers must be quite low. Once again the best explanation rests in the cooperative validation of this practice: the true owner will be able to marshal sufficient support from his neighbors to retaliate in spades against the intruder. Owing to the static nature of the interaction, it is easy to determine who counts as a violator—no one is so stupid as to break the window of his own car. And it is likely that some adjustments will be made so that neighbors who have used the space for limited periods of time, can be asked to leave. The outsider knows that the presence of this support network makes it risky to park his car overnight in a space in the face of that collective force.

Finally, it is worth mentioning another weakness of the system. There have been scattered reports that nondiggers have claimed exclusive rights to spaces dug out by others who have abandoned them.²⁷ From a social point of view, there is no reason why these spaces should not revert to the commons. The efforts expended by the interloper does not create wealth but only reduces the value associated with the space, and should be discouraged. Unfortunately, the system does not seem to have a way to weed these latecomers out, but incidents of this sort seem to be relatively rare, if only because most outsiders are quickly socialized to the local practice and claim the spaces that they clear for themselves.

²⁶See Eig, *supra* at A1

²⁷*Id.*, noting the travail of Jenny Loerzel, of Iowa, who shoveled out several spaces without ever thinking of claiming ownership of them. Here side mirrors were smashed when she pushed aside a chair that occupied the space she had cleared out.

The bottom line therefore is that the snow-parking system does work, and in so doing provide neat verification for at least one portion of the Demsetz thesis. The conditions of scarcity (brought on by the snow) do result in a transformation of property rights in parking places quite similar to that which Demsetz commented on among the Montagnes. The rule of capture is modified to protect the return right over the local territory until the space itself disappears. Hunting seasons are obviously not involved, but the possession of the space lasts until the snow melts, or better, until the City carts away the snow from the block so as to make the exercise unnecessary.

III. Top Down Allocation of Curb Rights.

As noted earlier parking spaces on public streets are allocated by multiple systems. The bottom-up rules are in general subject to displacement by clear state commands as to who shall and shall not use the public streets. On certain main thoroughfares, for example, clear signs indicate that only disabled cars are allowed to park on the shoulder of the road. All others must continue on their way. This system in general secures very high rates of compliance. Most ordinary individuals do not want to park on major thoroughfares. They are within walking distance of homes and shops, and both driver and vehicle are subject to serious risk of injury and damage. Since these cars stick out like sore thumbs, public officials have little difficulty in detecting them, and in imposing large fines when they are towed away from the scene of potential dangers. Relatively little reliance is placed on some shadowy system of social norms; the heavy lifting is done by good old-fashioned sovereign commands. Some portions of the highway network resist any efforts at privatization, and for good reason.

The interaction between top-down and bottom-up systems of controls raises more difficult issues on those avenues and streets that are sufficient to support both moving traffic and parked vehicles. On most side streets, the public presence intervenes only on sporadic occasions, typically when particular blocks are ordered clear of cars in order to facilitate street cleaning. Here the system of public enforcement is reasonably powerful because it is easy to detect and to control violations. The harder issues involved are concerned not with the enforcement issues but with the timing issues. Who decides and for what reason when street cleaning (or for that matter, street repairs) will take place? The point could be of no little matter. The density of parking and traffic uses could easily vary in given neighbors by choice of (week) date, and time of day. It may well be that less inconvenience is caused all the way round if block A is cleared on Mondays and block B is cleared on Tuesday. But it could easily take a good deal of political maneuvering to get the right scheduling for the service. The stakes are

higher when the issue is the closing of parking spaces for the repairs of streets and sidewalks. The usual University of Chicago complaint is that the City's Department of Streets and Sanitation never schedules the work for summer when the University is not in session, but manages to put the crews when traffic is heaviest in the school year.

The state intervention on streets and roads assumes a more permanent form when the issue is the placement and use of parking meters on public streets. Here again we see yet another instance of the familiar trade-offs. A more expensive system of property rights is established as the value of the resources increases. Thus casual empiricism again makes it evident that these meters are much more likely to be found on busy commercial streets than they are on quiet residential ones. The case for using parking meters to allocate space cannot be based on any naive claim that these are needed to maximize the carrying capacity of the streets. It is precisely because the parking places are always filled that meters are introduced in the first place. The real claim here is that the value of the street resource is too great for it to be offered efficiently on a first-come, first-served basis, for as long as the user wishes to remain. The meters thus introduce a price system of sort precisely to increase the rate of turnover on the block. Most commonly, the support for the use of meters on commercial streets comes from adjacent businesses. There is a powerful correlation between the amount of business traffic and the turnover rate of parking. Merchants will sell a lot more merchandise if 1,000 cars park on their street for 2 hours each than if 250 cars park there for the full business day. The cost of the parking spaces is one way to ration these spaces in ways that increase the value of the abutting landowners. The prices charged, however, are usually low relative to the value of the spaces in question: parking that costs \$1.00 per hour on a public street will cost \$8.00 to \$10.00 in the nearby parking garage that may well be less convenient to its users.

The hard question is why this disequilibrium persists for long periods of time. One explanation is that abutting landowners do not have full control in setting the metered rates. It is commonplace to observe that the political process does not tolerate auctioning off at market value the limited camping spaces available in national parks: prices are set well-below the market clearing rate. There is always the objection that the poor will be unable to pay the full freight as a reason to tolerate the queues that form when prices are depressed below market rates. (It hardly seems to matter that most of those on the queues received a preference as repeat users.) Similar arguments may well resonate in City Hall as well.

If, however, it is not possible politically to ration parking spaces by price, it may be possible, in the fallback position, to ration them by time. It is common therefore to see many City run metered spaces with two or four hour time limits—the longer limits being used when the parking spaces are adjacent to malls, where parkers are expected to spend longer periods of time. But the shift from high prices to time limitations provokes the usual private response. The individuals in possession of a space may wish, given the low rates, to remain there after their time has expired. Accordingly, they “feed the meter” so as to restart the cycle in violation of the general rules. It is, of course, easy to impose fines when cars remain parked after the meter has expired. The public official need only check the meters periodically to see who is in violation. But when parked cars overstay their welcome by refilling the meter, the enforcement question is much more difficult. Someone has to mark the cars at one time, and then come back two or four hours later to see if they are still there. Those markings can only take place at intervals, so that the enforcement system has to tolerate major slippage even in the best of circumstances. It is also possible for car owners to adopt counterstrategies. I, for example, have seen the astute owner dash out of a shop and use a rag to wipe off the chalk-mark that some parking officer has placed on the rear wheel. The overall equilibrium therefore is unsatisfactory owing to the political reluctance to use a stronger price system.

The use of parking meters becomes far more controversial for streets that lie in mixed neighborhoods—most chiefly on residential streets that lie adjacent to commercial streets. In Hyde Park, the streets that meet that qualification are the north/south side streets (Kimbark, Kenwood, and Dorchester Avenues) that are located next to business streets (here 53rd and 57th Streets) which depend on high parking turnover for the operation of restaurants and stores. In the pure commercial environment, all merchants share the same attitude. The higher the turnover rate in cars, the more likely each of them is to get business. But the mixture of residential and commercial establishments creates a real conflict. The residents do not wish to pay for parking in front of their own homes, and they want to make sure that parking spaces are secure for their household help and for their friends. In many cases they wish to block all commercial traffic, but failing that, they usually oppose the use of parking meters in front of their homes.

The signs of struggle and compromise are everywhere. Sometimes the meters read that money is required only between 8 am and 6 PM. Obviously the effort is to give the benefit to the commercial interests during the business hours, but to allow residents to park overnight free of charge. In some cases the meters extend only a short distance down the residential streets. On Dorchester Avenue, just

south of 53rd Street there were four meters on each side of the street, and these are typically filled into the early hours of the evening. One block to the east on Blackstone, by Giordano's Pizza place, are six meters, two on the east (Giordano side) and four on the west. These metered spaces are always occupied. The street also has several no parking zones on both sides of the street and many of these spaces are occupied during the peak-demand periods, as are the nearby alleys that are supposed to be free of traffic.

In contrast, no parking meters are found on Kimbark Avenue, north or south of 57th Street, but here the congestion is far less because the Ray School occupies the east side of the block and thus reduces the demand that local residents have for curb space. South of 57th Street, on Kimbark, where the block is heavily residential, the first-come, first-serve rule seems to work, because of the delicate equilibrium created by local social rhythms. Much of the parking here comes from University and Lab School students and employees. These individuals clear out after 5 PM, so that the residents can occupy the spaces overnight. Once (and if) they leave in the morning then University and Laboratory Schools employees and students return to occupy spaces for the remainder of the day. The equilibrium is tense, and for the moment is maintained only because many students and employees find parking on the Midway, which is usually quite empty during the evening hours. But the pressures are building. There have been many meetings on parking in which local residents have sought to reduce the number of outsiders parking on the streets. One proposal is to prohibit Lab School students from parking on the street, which is stoutly resisted by their well-connected parents. But the constant pressure on these sides streets leads to the use of a much more powerful device to allocate the commons—the residential permit—to which we now turn.

Permit Parking. The most powerful of the top-down mechanisms for allocating parking places is the permit system. These permits specify which individuals are entitled to use particular streets for parking. One of the most important set of permits are those which are intended to restrict parking on particular blocks to its local residents who are required to have Illinois plates. In Chicago the system appears to work as follows.²⁸ Permits are issued to all those individuals located in a designated region so long as they pay, in addition to the standard \$60 per year sticker fee, a nominal fee (presently \$25.00 per year) that does not come close to the fair market value of the permitted spaces. It is well understood that these permits do not guarantee any individual dibs on any particular slot: rather

²⁸This information was supplied by Ray Lodato, one of the aides of Alderman Leslie Hairston of the 5th Ward. My research assistant, Jeremiah Goulka, collected all this information.

all the parking places within that area are open to eligible permit holders. Because more cars than permits exist, some permit holders on some occasions will find themselves unable to gain access to a protected parking place. The system also allows individual owners to issue stickers to their guests for particular 24 hour periods. These can be purchased in books of 15, for \$3.00 per sticker, with a limit of two per customer for any year.²⁹ From the ex ante perspective, these limitations do not deprive the permits of their main source of value: the exclusion of outsiders increases the odds that insiders will find a parking place.

Permitted spaces of this sort could, of course, be allocated by an auction. That process would simply define the areas over which the permits are issued, and then indicate the number of slots that will be sold for the number of available places. Presumably the ideal system is one in which the City maximized its revenue from use. This system would have several real advantages: first the auction would generate public revenues that could be used to increase parking spaces elsewhere or to defray other City expenses. Second, the system would eliminate the need to confine eligibility to residents located on a particular block. A person who frequented the neighborhood to take care of an elderly family relation or to hold an evening job could bid on the space as well. Unfortunately, the current permitting system awards high and low demanders equally, so long as they meet the appropriate residential requirements. The auction unbundles one neighbor from the next, and each can bid in accordance with the intensity of his own preferences. Presumably, much controversy could develop about the system of bidding: in an auction for 100 spaces, does each winning bidder pay just what he has bid, or only the amount paid by the 100th bidder? But these questions pertain to all auctions, and do not raise any special questions here. I shall not consider them further. No matter how they are resolved, it looks as though the nonterritorial rights of access outperform any system of permits based on residency.

The economic strength of that bidding system is, however, the source of its political weakness. Decisions about parking are highly territorial, and the local Alderman plays a key role in allocating spaces within the ward. The aldermanic currency is ballots. It is not dollars. Hence the political process is skewed in favor of an administrative system that looks toward the ostensible gains and losses of local residents, and not to any measure of citywide welfare. The commitment to the political process then, in a style that should make any FCC Commissioner

²⁹For additional information on fees and terms, see <http://www.cityofchicago.org/Revenue/Parking/VehicleSticker.html>.

proud, requires a process that at every stage turns its back on simple bidding mechanisms. In Chicago, the process appears to be governed by a unified legal regime in which much depends on the discretion conferred on the local alderman, who has a veto power over the designation of permitted parking areas within the ward. The first requirement holds that a neighborhood is eligible for residential permit parking only if it zoned R5 or less: R8 is the highest density, and R1 is the least. The ostensible (and sensible) purpose behind this rule is to prevent the introduction of the permit system on those blocks where the high demand for street parking makes it likely that a permit system will introduce profound dislocations into the local economy. In Hyde Park, for example, the neighborhood east of the Illinois Central Tracks, much of it high-rise buildings with off-street parking, is zoned R7 and thus is off limits for permit parking. In the areas closer to the University, however, some streets are in fact zoned R5 or less and thus eligible to apply for permits.

Under the current system, the application for the permit status requires the signatures of at least 65 percent of the residents of a given area. The area in question has to be at least one contiguous city block but it may be more. Clearly, this requirement leads to a certain amount of game playing, not unlike that which goes into the selection of bargaining units under the National Labor Relations Act.³⁰ If 80 percent of the registered drivers on one block, and only 60 percent of the drivers on the second are in favor of the permit system, a combined application could yield a larger district, but owing to the weakish majority could well lead to a reduction in the chances of success. In contrast the use of two smaller districts leads to the automatic rejection of one petition but might at the margin increase the chances of gaining the permit system for the second neighborhood. The calculations become only more cloudy when it is uncertain how many people will support a petition drive, or indeed what happens given the normal flows of residents in and out of neighborhoods. And it is not clear whether the petitions that are signed, say, for a smaller permitted, be can used to support a large permitted area to take advantage of some unanticipated shift.³¹ Nor is it clear as to how often the surveys have to be updated to take into account changes in local conditions.

³⁰For discussion of those incentives, see Douglas Leslie, *Labor Bargaining Units*, 70 Va. L. Rev. 353 (1984).

³¹Probably it should not be. The individuals may well want a permit system for their block because they think that their overflow can move to nonpermitted blocks nearby. It is quite possible that people who prefer a smaller unit for themselves would oppose therefore a larger unit of which they were a part. The system therefore only makes sense when the designated area

As might be expected, the strong division of opinion on the desirability of these permits has led to some sharp disputes when some local residents have refused to sign petitions circulated by their neighbors. Once the petition has been signed, then the matter is forwarded to the alderman who has complete discretion on whether to continue the process. The current Hyde Park alderman, Leslie Hairston loathes these zones and she has not permitted any petition to go further in the process. (Hyde Park's two permit zones have both preceded her.) But the aldermen on the North Side of Chicago have typically been much more receptive to the creation of these districts, especially in the neighborhoods surrounding Wrigley Field where the off street parking is often limited. In those cases where the petition is blessed by the alderman, the matter then goes to the City Council which initiates a parking study to determine whether the various conditions for the creation of a permit zone are met. The results of the study are then referred to the City Council Committee on Traffic and Safety. If that Committee approves of the zone, the matter then is taken to the full City Council for final approval. The elaborate nature of the procedure offers strong testimony as to the importance of the issue.

The key condition for creating a residential parking zone includes a demonstration that the designated parking spaces are 85 percent or more utilized during the hours for which the permits are requested, and that at least 45 percent of the spaces are occupied by cars that are registered outside the zone. The evident preference here is to protect local residents against these zones being filled up by outsiders. The intuition is that it makes little sense to use the zone to exclude the outsiders if they only occupy a small percentage of parking places within the neighborhood. But the selection of this, or any other, number does not resolve one threshold question because it does not address the inevitable problem of seasonal variations in usage rate by outsiders. In Hyde Park that number is heavily driven by the time of year. When the University and the Laboratory Schools are in session, the number of commuters in Hyde Park increases sharply during weekdays. In the summer time and holidays it drops off. No effort is made to account for these variations, and local residents therefore have a strong incentive to conduct their surveys at times of peak external demand. In general, however, the permit system lacks sufficient flexibility to cover some portions of the calendar year but not others. That is clearly not a necessary feature of all permit zones: in the north side zones around Wrigley field, the parking system is structured to preclude outsiders on days

is set from the beginning. Even then, more complicated judgments have to be made when multiple petitions for nearby blocks circulate at the same time.

(especially nights) when the Cubs play at home. The rule is in response to the evident spike in demand for nearby parking facilities.

There is no question that this intricate system shows clear signs of bureaucratic rationality—and clear risks of bureaucratic malfunction. The technical requirements do help weed out some blocks from consideration, so all the political horsepower is concentrated on those blocks that are eligible for the permit system. The technique is similar to that used to allocate broadcast permits, where the prospective licensees first have to meet certain limited objective standards, before the entire process is thrown open to the tender mercies of comparative hearing when two or more applicants survive the initial phase. The implicit value to local residents creates unallocated economic rents which in familiar fashion invite powerful jockeying for position. Yet, as is the case with water rights in the west, the entire system avoids the most obvious charge of a giveaway because successful permit holders are charged a low fee that does not match the fair market value of the space.

The social consequences of this system, compared to the auction procedure outlined above, are substantial. Any informal count will show that the permit system reduces the overall carrying capacity of the city streets by a substantial extent. An informal survey of several permitted blocks in Hyde Park during day time business hours showed that these streets were often left half or more empty, while the nearby commercial blocks were chocked-filled with cars, some of which were illegally parked, blocking traffic. These spillover effects influence the political process, for the permits system, as one might expect, stoutly opposed by nearby merchants who see lost customers who could fill the idle spaces located one block away from their businesses. The question of how these permits should be filled has become, to say the least, one of the most contentious local political issues, for these spillover effects are not captured in the petition process that only takes into account the preferences on the block slated for permitting. Such is the potential gain for local insiders that Alderman Hairston has stated publicly that in her ward every single residential block eligible for permitting has at some time applied for one. Her position, however, is to reject all the new requests out -of-hand, and for the right reasons. The reduction in the overall capacity of the system means that permits on one block result in greater congestion on nearby streets, often with strong negative consequences for the commercial establishments that depend on the nearby street parking in residential neighbors. As with broadcast licenses, the absence of any real pricing system leads to systematic excessive demand for the slots in question.

Handicap Permits. A second contentious issue involves the creation of permitted parking for disabled persons. These permits operate under different principles from those applied to block permits. Here the application in question is for a single space located in front of the residence of the handicapped individual. The requirements for the permit no longer center on community needs and preferences, but on the plight of the individual applicant. Key to the overall process is the ability to obtain a doctor's certificate that attests to the applicant's handicap so as to warrant the grant of the permit. In addition, certain other objective conditions must be satisfied. Under current practice, for example, handicap permits are not granted to individuals with garages (although individuals may receive block permits to park their cars even if they own garages as well).

The disability permits run into serious problems of administration. The sticker is given to one person for one purpose. But the grant is both too narrow and too broad relative to its intended purpose. It is too narrow because it only covers one designated car used for the transport of a handicapped person. It therefore is of limited value to any handicapped child, say, who is chauffeured about sometime by his parents and at other times by hired help. Ideally, three or four automobiles should be allowed to use the spot. One way to achieve that result is to have a removable tag which can be transferred from car to car. But that device is not likely to work all that if the drivers of the separate cars are not in contact with each other on regular basis. (It is easy for the permit to be misplaced if people have to run in and out of the house to get it.) The easy portability obviously opens up the fresh possibility that on some occasions the tag will be used by other individuals for impermissible purposes. With permitted parking, no one doubts that the overnight parking of an eligible car counts as a permissible use. But the doubts run deep for cars with handicap tags or stickers. No one knows exactly how or why the particular slot can be used. It becomes a source of endless resentment when a healthy teenager is seen bounding out of an automobile equipped with handicap sticker, when the space has laid vacant for most of the day. It is also commonplace to hear stories that doctors are often willing to bend the rules, perhaps for a fee, to issue the report for a handicap sticker, or that these are retained, or even sold, long after the initial holder of the tag has recovered, moved away or died.

Overall there seems to have been no effective control of abuse once the tags have been issued, but the local resentment has led to a crackdown on handicap tags in Chicago. The matter is no longer settled at the ward level but has instead become a City issue. And the recent evidence suggests that the standards are tightening. It should, of course, be possible to do more. Nothing prevents the

City from issuing stickers or tags of a distinct color that are valid only for a single year: that is routinely done for city taxes and it could be done here. It should also be possible to use some form of a picture ID to prevent the illegal transfer of the tags in question. But none of these reforms will solve the basic problem that these permits provide their lucky holders with something for nothing. The use of a fee system based on time and location would effectively crimp the demand and reduce the scope and thus curtail the abuse in question. But the politics of entitlement make this solution something of a distant hope.

In sum, the parking situation seems ripe for more systematic study. Precisely because parking spaces on public streets are not sold in private transactions, it is easy to overlook their enormous value. But anyone who has had any experience with the planning process knows that few other local issues are as divisive as the parking question. So long as parking places remain in public solution, their use will continue to be governed by complex systems of allocation, which will in turn unleash the powerful forms of political action so familiar to public choice economists. Discovering how the system does act and should act is no easy question. Every alternative has its costs and its imperfections. And all real world systems exhibit an uneasy mix of bottoms-up and top-down systems of allocation.

That said, it seems clear that we should be able to do better with parking, just as we should be able to do better with the spectrum. The rights in question are not vested by the force of time, and the property rights in question are capable of reasonably clear definition. On balance it seems as though the progression should move from a system of initial occupation to one of metered parking or parking permits sold off in some form of auction. Much of this system remains, but it is overlaid with an ever more complex system of permits that introduces a set of political distortions that are easy to identify in principle but hard to correct in practice. In a sense, then, the lesson thus far is not revolutionary: understanding how parking places are allocated lends greater depth to the theory of property rights. But it is not in itself a transformative experience.

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