Harold Demsetz, Emeritus Professor
Department of Economics
University of California
405 Hilgard Avenue
Los Angeles, CA
(hdemsetz@econ.ucla.edu)

On Being Misled by Transaction Cost Economics

Externalities, Commons, Anti-commons, and Gridlocks

Harold Demsetz, Prof. Emeritus, UCLA

During the last half-century transaction cost became a prominent consideration in discussions about externalities and ownership arrangements. The author of this essay contributed to this development in the earlier part of this half-century but has since come to doubt the importance of transaction cost and even the roles it is thought to play in these two areas of economic thought. A succinct statement of this doubt as it pertains to the externality problem is a primary task of this essay. The last part of the essay questions the dominant position given to transaction cost in discussions of ownership forms that now go by the names of commons, anti-commons, and gridlocks.

Current externality doctrine. A world imagined to be populated by self-sufficient persons, each of whom lives in isolation on an island that is widely separated from other islands, is one in which the consequences of actions taken by one person are borne mainly by that person. Our world, in contrast, relies heavily on specialization, not on self-sufficiency. A high degree of interaction is the necessary result of the great increase in productivity achieved by way of specialization. Consequences of actions taken by one person frequently are borne by other persons. These interactive effects

are of many sorts. Of interest here are those that affect production possibilities of persons other than those taking such actions.

A launderer experiences an increase in the cost of cleaning clothes that arises from soot descending on his laundry from a neighboring steel mill; real externalities like this are of concern in this essay. Early debates about such externalities applied the phrase “inequality between the private and social cost” to refer to them. The social cost of using soft coal to produce steel includes not only the cost of the coal but also the resulting increase in laundering cost resulting from its use; the private cost borne by the steel maker, which includes the amount he pays for the soft coal, does not seem to include the increase in cost of laundering. If the gap between private and social cost is not closed, it would appear that the quantity of steel produced would be inefficiently large, since marginal increases in steel output entail marginal increases in costs that exceed marginal benefits. By the same reasoning, the launderer will clean too few units of clothing as compared to what would be cleaned if soft coal were not used by the steel maker. [1]

Current doctrine about externalites originates mainly from two works, those of A. C. Pigou (1920) and R. H. Coase (1960). Pigou gave examples of situations in which private and social costs differ, and he supplied an analytical framework for the misallocation of resources that results from the difference. His work led to broad acceptance of externalities as a source of inefficient resource allocation and provided a reason for doubting that the competitive private ownership economic economy, as modeled by neoclassical economists, could deliver the efficient resource allocation claimed for it.

[1] As R. H. Coase (1960) pointed out, there is a cloaked symmetry here. If the law were to bar steel mills from the use of soot-producing soft coal, we could equally well say that the cost of laundering clothes includes the incremental cost of using hard coal in steel mills.

Coase noted that Pigou's writings and lectures failed to offer an explanation of why this should be so. That is, Pigou failed to offer a source of the failure of the neoclassical model; instead, he simply gave arithmetic or geometrical illustrations of differences between private and social cost. He did not demonstrate that these examples could, or would, emerge from the system modeled by the neoclassical economists. Coase, criticizing Pigou for neglecting this issue, offered what he thought made the existence of a difference between private and social cost compatible with a competitive, private ownership economy. The missing piece to the puzzle, he claimed, is the fact that the price system does perform its function freely; a cost must be incurred. This cost is referred to here as "transaction cost." Coase aimed his criticism for neglecting this cost at neoclassical economists who modeled the competitive economy as well as at Pigou who modeled the problem of a gap between private and social cost.

Taking the cost of transacting into account, Coase offered two demonstrations of its relevance to a gap between private and social cost. One demonstration showed that no such gap could exist if there were no cost to using the price system, since, in this case, a potential gap between private and social cost could and would be closed by way of freely conducted negotiations between the interacting parties. The launderer could offer a payment to the owner of the steel to substitute hard for soft coal. In this way, the cost to the steel mill owner of using soft coal would include not only expenditures made to secure the coal but also revenue not received from the launderer if the mill owner continued to use soft coal. Such foregone revenue would be as large as the increased cost of laundering borne by the launderer as a result of airborne soot. I have no quarrel with this demonstration; it is an insightful and correct contribution to understanding the externality problem.

His demonstration of the existence of a difference between private and social cost, then, rests on a positive cost of transacting. He begins this demonstration in

context of ownership ambiguity that itself has little to do with the externality problem. Two parties contend for control of a resource in a situation in which there is conflict between them as to which has the right to control the use to which the resource is put. They take their dispute to a common law court. The court identifies one of these claimants as owner of the resource, but it does not prescribe the use to which the chosen person puts the resource. It might well be that the party not chosen by the court is able to put the resource to a more valuable use than can the chosen party. Realization of the higher value use will nonetheless obtain if the two parties can negotiate after the court has made its decision, since the losing party, by assumption, can and will pay more to purchase the resource than the winning party can obtain by continuing to govern the use to which the resource is put. However, the cost of transacting may be so high as to block negotiations between these parties, in which case it appears, as it did to Coase, that the economic system might then have failed to achieve an efficient allocation of resources. However, the appearance is only a mirage, one that will soon fade away.

Courts and markets. Coase has treated the legal system and its courts as if they were parts of the economic system that had been modeled by the neoclassical economists, but their model assumes that all resources are privately owned and that ownership is fully respected; there is no place in it for the courtroom drama imagined by Coase. Moreover, real social systems in fact design courts so as to insulate them the influence of the marketplace. Offers and acceptances of payments to the court for desired decisions are illegal, and court survival is not made to depend on realization of profit. The neoclassical model of an economy and conclusions drawn from it are confined to economic institutions, to firms, buyers, sellers and so on. The model draws no conclusions about resource allocation which results from actions taken by non-market institutions like courts and legislatures. Moreover, Pigou did not base his examples of inefficiency on ownership *ambiguity;* there may be problems of ownership that emanate

from public ownership of scarce resources as well as private ownership, but not from ambiguity of ownership.

While adopting the neoclassical perspective of market behavior that sees ownership and markets as instruments by which values of resource are maximized, Coase has relied on court decisions to assess the efficiency of the economic system. The implication he draws, that the economic system has made a mistake in allocating resources, is quite wrong. The court may have made its choice of owner for reasons different from maximization of the market value of resources or it simply may have made a mistake because it is not guided in its decisions by a market-based calculus. These reasons may seem good to some and bad to others, but they are irrelevant to the externality problem whose proper domicile is wholly within the economic system. Indeed, if the court were transformed into a market institution, being allowed to survive only by revenues secured from those claimants who pay for its services, control of a resource would go to the person who can put it to its highest value use.

The *economic system* simply takes the court's decision as an exogenously imposed constraint on its operations, much as takes a decision by the State to tax or redistribute wealth. An efficient economic system is one that makes the most of scarce resources within the constraints handed down to it by courts and legislatures. Efficiency requires the market to block the transaction between the two claimants if the cost of undertaking the transaction exceeds the increase in value expected to be realized from a change in ownership of the resource. [2]

A cost is a cost is a cost… Let us set aside the court, for its operations are quite separate from those made in the marketplace. An issue nonetheless remains to be discussed. To discuss this issue, let us adopt two assumptions. As does the

[2] I have offered the view contained in this paragraph in two earlier works (Demsetz, 2003, 2008), but I have not yet received substantive responses. .

neoclassical model, let us assume that all ownership rights as established, unambiguous, and respected. But, as the neoclassical does not (explicitly) do, also let us assume that the cost of transacting is positive. Does the introduction of transaction cost lead to a rejection of the conclusion that markets will allocate resources efficiently in a competitive, private ownership economy? Does Pigou's argument hold in this modified neoclassical model?

Transaction cost does prohibit an owner of a resource from knowing all those values that others might realize from using this resource, since the cost of transacting may prevent some of these opportunities from being be brought the owner's attention by way of negotiated offers. However, values that are not known will be only those for which the cost of acquiring price information exceeds the expected value of the knowledge that would be obtained from this information. All other prices are known because they are worth knowing. Put differently, there is an efficient amount of ignorance in an economic system if the cost of acquiring information is positive. The amount of ignorance that is efficient increases as does the cost of transacting (viewed as the cost of conveying information). Ignorance may not be bliss, but it may be efficient. One cannot claim that resources are misallocated simply because information is not possessed or a negotiation is avoided; nor can one claim that resources are misallocated even if an entire market does not exist. [3]

There is no difference between transaction cost and other costs in this respect. The amount of soot from the production of steel may remain greater than is desired by the owner of a nearby laundry because the cost of transacting between laundry and mill owners is too great to make the transaction worth undertaking *or* because the launderer and steel mill owner believe that the cost of substituting hard coal for soft is greater than

[3] Early statements of the importance of this principle in regard to transaction costs are found in Demsetz (1963, 1969).

the cost borne by the launderer as a result of soot. In both cases, more soot descends on the laundry than if the cost of reducing soot were smaller. If we do not think resources are misallocated in the case in which hard coal is too costly to use, why should be think resources are misallocated in the case in which transaction cost is too costly to bear? Both situations are compatible with efficient resource allocation, and, after all, it is *efficiency* that is sought; neither negotiations nor hard coal are sought in and of themselves.

I emphasize that none of what is written above denies the possibility of inefficiency in a competitive, private ownership economy. My message is that this possibility is not a result of positive transaction cost.

Commons, anti-commons and gridlocks. Throughout the neoclassical period of economics mainline economists focused their inquiries on the private ownership market economy that had come into existence during the 18th and 19th centuries in England and parts of Western Europe. Marx and followers, though critical of private ownership, offered no substitute model for whatever they might have imagined to be an alternative economic system. The forces that shaped communism after the 1917 revolution in Russia were not a product of the writings that poured forth from Marx, Engel, and their followers, although their works did help to bring on the revolution itself. Even today, we have no formal model of socialism that is at all comparable to the neoclassical model of a market economy.

However, embedded within a real market economy are institutions that differed from the markets and firms embedded in the neoclassical model. These received little attention during the neoclassical period but now receive more attention. I refer to not-for-profit firms, labor owned firms, households, and organizational arrangements that we now call commons and anti-commons (Heller, 2008). The study of these became serious a half-century ago. And, beginning with Coase's (1937)reliance on transaction

cost to explain the degree of vertical integration in a “normal” firm, transaction cost also was used to shape our understanding of these other institutional arrangements, but, in my judgment, transaction cost is not as important in this task as is commonly assumed.

The now old study of property rights I wrote four decades ago (1967) serves to illustrate the relevance of considerations different from transaction cost. The study was undertaken to seek an explanation of land ownership arrangements that had been uncovered by anthropologists in their studies of Native Americans living in the Labrador Peninsula early in the 18th century. At that place and time, organization of land control was transformed by Native Americans from the arrangement we now call a commons to one of family-centered private ownership. My goal was to explain this transformation. In doing so, I found it necessary to explain why a similar transformation did not occur among Native American communities of the American Southwest. Two conditions seemed to offer the core explanation for both regions: growth in the European fur trade and the difference in roaming habits of animals of Northern forests and of those of the Great Plains.

The transformation to family-centered private ownership in the Northeast followed the timing and geography of growth in the European fur trade. Guided by free access to fur-bearing animals, the increase in number of trappers began to put pressure on stocks of animals in the region, making a free access arrangement more and more costly. Privatization of land by resident Native Americans in the region was a practical means for reducing the scale of hunting in the Northeast because forest animals generally have a habit of remaining close to their “home bases.” Land ownership offered the essential requisites for controlling animal stocks. The grazing animals of the Southwest, in contrast, strayed far and wide in search of edible grasses, making private ownership of parcels an impractical way to preserve stocks of grazing animals. And, indeed, these stocks continued to be depleted. Private ownership became the efficient

ownership form in the Northeast because it was cost effective. The commons remained the efficient ownership form in the Southwest because maintenance of land control, though costly, did not facilitate control of animal stocks. [4]

I refer to this old study to undermine two notions. The first is that organizational efficiency cannot be established simply by knowing the properties of organizational forms; each of the two forms considered above is efficient for different exogenously imposed constraints. The second erroneous notion is that the efficiency of an organizational form can be determined by transaction cost considerations. The commons does result in an increase in transaction cost by making conservation depend on securing the agreement of all members of a community to restrain use of the commons. But the same increase in transaction cost is experienced by use of a commons in the Northeast and the Southwest, yet the commons remains efficient in the Southwest. To understand why different arrangements are efficient in these two regions one must also look at the cost of privatizing the resource at issue. This is low in the Northeast, where ownership of comparatively small parcels of land effectively privatizes ownership of animals without even requiring an investment in fencing. It is high in the Southwest, where effective privatization of grazing animals requires not only very large parcels but also very expensive fencing (at a time before barbed wire became avialable). The point of all this is that transaction cost, though relevant, is not especially relevant as compared to other costs. A cost is a cost is a cost…

Aside from these two notions, it is important to realize that efficiency cannot be determined without an understanding the objective of resource owner's investment. In the study just discussed, I implicitly assumed that Native Americans desired to maximize the wealth locked up in animal stocks and/or that they desired to protect berries and corn

[4] See recent the exchange between Professor Frischmann (2008) and me (2009).

from wild animals. Acceptance of these objectives sustains the conclusions I drew. Different objectives might lead to different conclusions.

With these points in mind, I conclude with a few cautions about quick judgments about the efficiency of gridlocks and anti-commons. Consider the anti-commons. It poses a problem of holdouts because it is defined by the existence of a multiplicity of owners of the same resource. An attempt to offer the resource for sale must win the approval of all these owners. This creates an incentive for some owners to hold out in an attempt to receive a greater share of the proceeds of a sale. [5]

Yet, the cost that is likely to result from holdout behavior may seem small if the involved people anticipate dealing with issues of such great import to them that they prefer an arrangement that demands unanimous agreement before certain actions are taken with the relevant resource. It is not inconceivable, for example, that writers of our constitution might have prohibited a change in the constitution unless the change firs received approval from all states in the union. Without knowledge of what motivates people to create and join an anti-commons arrangement, we are unable to judge the efficiency with which resources are being allocated. Motivated differently, these people would have selected an alternative form of ownership, perhaps one like that used by modern corporations in which, for many decisions, a majority of voting shareholders determines the course of action to be taken.

Consider now the gridlock.[6] The "Quaker Oats Big Inch Giveaway" is offered in Michael Heller's *Gridlock Economy* (2008) as a source of gridlock. Quaker Oats bought about twenty acres of scrubland in the Klondike and subdivided it into twenty million parcels of one square inch each. A deed to each one of these parcels was made

[5] We may note that the neoclassical model of a competitive economic system is immunized against holdouts because it assumes that no buyer or seller can influence the quantity or price of a good.

[6] A gridlock is not is not a particular organizational form, not even an anti-commons, but gridlock can result from many different types of organizational forms.

available to each purchaser of a box of Quaker cereals. Thus, 20 million well-defined private entitlements were created, one for each of these twenty million one inch parcels.

Heller implicitly identifies this ownership arrangement as inefficient. He speculates thatsomething valuable, say oil, is found within the perimeter of these 20 acres at some future date. To unify ownership of the 20 acres at this later time, so that this valuable resource may be developed, requires a search for 20 million owners and a matching set of negotiations, the combined cost of which makes development of this resource unprofitable. Had there been a single owner, or only a few owners, development of the resource would have been profitable because the transaction costs involved in unifying ownership would have been much smaller.

However, transaction cost is not the issue. Suppose, alternatively, that Quaker had selected the same number of one square inches parcels but had selected each of them from locations that were quite separate from each other, say at locations scattered widely across the fifty states. If anything, transaction cost would be greater with this arrangement than with the Yukon arrangements. Yet, the dispersed parcel arrangement does not seem to suggest inefficiency as strongly as does the Yukon arrangement. The issue, then, cannot be transaction cost *per se*. What is it? It is the greater plausibility that oil will be sought and found in a unified parcel of 20 acres than in each of 20 million widely separated locations. There is a somewhat greater probability that the arrangement actually chosen by Quaker will turn out to be a mistake, but in fact no valuable buried resource was found on these 20 acres.

However, the arrangement actually chosen by Quaker would seem to offer a better advertising campaign than one in which a person acquires a one inch parcel in a place that he or she does not recognize and which has no “color” of location attached to it. Quaker Oats invested in an advertising campaign that, we may suppose, was expected to succeed and to yield profit. From Quaker’s perspective, it used resources

efficiently. In a probabilistic sense, it also did so from society's perspective if we treat advertising as a "good" rather than as a "bad." Quaker made the judgment that this 20 acre piece of the Klondike was not then and would not likely become valuable enough to make this choice of advertising a mistake. There is guesswork here; we may suppose it is well informed guesswork even though it remains a chance that the guess will turn out wrong.

As discussed above in regard to efficient amounts of ignorance, some positive error rate is a necessity if resources are allocated efficiently in a world in which information is costly. Some errors may turn out to be so important as to justify bearing costs of correction, but this cannot be true for the average advertising experiment. I do not deny mistakes. I deny that the efficiency of using scarce resources in attempts to eliminate all possible errors or to remedy all outcomes that happen to turn out to be second best.

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