

*This is the third of a series examining the moral dimensions of economic “externalities”, the spillover or incidental side effects in market activity.*

*The series is available in expanded form, with an introductory chapter and updated essays, as an e-book to facilitate reading and annotating: <https://nmichaelbrennen.com/shop/>.*

In a 1979 paper, Carl Dahlman considered externalities in the light of developments in economic thought since Pigou’s and Coase’s contributions. Dahlman’s opening question is straightforward: why are market transactors unable to make one who causes an externality internalize the costs of his actions? (141.) The only reason must be that the transaction costs involved are greater than the expected benefit; thus, “in the theory of externalities, transaction costs are the root of all evil” (142.) Dahlman identified two tasks for his paper: 1) analyze the concept of transaction costs to determine what kinds of transaction costs generate externalities, and 2) draw conclusions about the relationship between Pigou and Coase (143.) His argument is complex, and the following summary only partially presents his argument.

First, a few notes may be helpful about “Pareto optimality,” or “Pareto efficiency.” First formulated around the turn of the 20th century, the Italian economist Vilfredo Pareto proposed an optimal distribution as one in which no one can become better off without someone else being made worse off. The Pareto relevancy of an externality was developed in a detailed, technical analysis of externalities by James Buchanan and Craig Stubblebine. Buchanan and Stubblebine argued that, in the presence of transaction costs, an externality is Pareto-irrelevant if the necessary transaction costs between the parties to reduce or eliminate an externality are higher than the expected benefit.

Dahlman began the first task with an analysis of three kinds of transaction costs. The first is a cost in which “a fixed proportion of whatever is being traded is assumed to disappear in the transaction itself” (144.) The second is a cost in which the exchange itself may be costless but may require fixed organizational and setup costs to prepare the exchange. Dahlman discounts these, as he considers them Pareto-irrelevant externalities: given that the transaction costs are understood, the optimal cost/benefit allocation already exists or transactions would be effected to achieve it.

Dahlman considered a third type of transaction cost, which he identified with Coase’s original work; much more problematic for mathematical modeling than the first two, these are the market costs to “discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on” (15.) These costs are naturally categorized by the various phases of an exchange process; in Dahlman’s terms they are the “first approximation to a workable concept of transaction costs: search and information costs, bargaining and decision costs, policing and enforcement costs.” However, they are reducible to a single type of cost, in that they are all “resource losses due to imperfect information” (148.) The theoretical treatment of such uncertain costs is to associate uncertainty with a statistically analyzed subjective probability distribution over all possible states, and that the probabilities are stable in terms of finding a trading partner, and so forth. When considering externalities, “this implies that some unwanted

side effects remain because of the uncertainty associated with undertaking the transactions that would eliminate them” (148.)

Dahlman analyzed the uncertainty of the party harmed by an externality - the “patient,” adopting a moral theory term - in a 2×2 matrix, with “correct” and “incorrect” subjective probability estimates of being able to negotiate with the externality producing agent, and “reduced” and “endured” for whether or not the externality would be successfully reduced or whether it must be endured. In a detailed analysis beyond the scope of summarizing in this post, Dahlman concluded that the only possible Pareto-affecting state is that of the intersection of “incorrect” and “endured;” in that state, were the patient to incorrectly estimate that the costs of reducing the externality were too high and choose to endure it, when in fact had he pursued the transaction the it would have been cost-effectively reduced, an externality would exist to the extent that the owner incurred costs that could have been reduced. However, considering that with the information available to the owner he made the correct decision within the available probabilities, there is no externality. An externality only exist if one assumes that the laundry owner should have known better or if someone did know better (150.)

Dahlman concluded the analysis of his first task that “it would seem, then, that no kind of known transaction costs can possibly generate anything looking like a Pareto-relevant externality” (150.) Thus we seem to be left with the conundrum that in the presence of transaction costs, if a side effect does not exist the situation must be optimal in terms of resource allocation, and if a side effect does exist it is because it is too costly to transaction away, that situation too is optimal as the side effect is Pareto-irrelevant. In Dahlman’s view the conundrum emerged from the methodology of Walrasian general equilibrium analysis, which is the basis on which Pigou based his analysis. “[I]n the perfectly competitive solution to a Walrasian model, all side effects are either internalized or eliminated” (153.) Thus, “Once the constraints ... all have been suitably specified, the logic of the framework leads to a description of a Pareto optimal equilibrium (if it exists.) If the constraints describe our world, then we must conclude that the world is optimal relative to those constraints” (154.)

Dahlman argued that “it is a logical fallacy to use as a frame of reference a world in which transaction costs are zero, for that world is unattainable, given human behavior in our world” (153;) instead, he proposed that a model that includes non-zero transaction costs among the constraints on economic agents should be the point from which to judge the market (155.) However, when one adopts a model that includes those known costs in the constraints on individual and government behavior within the logic of Walrasian equilibrium, the system would appear optimal, even with transaction cost induced externalities.

Dahlman found Coase’s system a viable alternative to analyze externalities. He identified Coase’s notion of transaction costs as identical to his previously noted third category of transaction costs due to imperfect information (158). Coase’s work showed that where transaction costs are zero, assigning liability is not important, as market agents will transact to eliminate externalities, regardless the starting point. However, where transaction costs are not zero, they restrict otherwise mutually beneficial trades (through a fictitious “Dr. Pangloss,” E.J. Mishan humorously argued against those who assume that markets with transaction costs trade away externalities.) In difference with a Pigovian approach of assigning an “emitter” and a “recipient” of an

externality, Dahlman argued the Coasean solution, that what matters is that liability be assigned so as to create the highest valued output (159;) in such a case “it may very well matter to whom liabilities and rights are assigned” (158.) He concluded, contrary to how many see Coase’s work, that it did in fact support State interventions in the market, though in much more flexible and creative ways than a simple Pigovian tax: “the Coase approach, correctly interpreted, would imply exactly the same results that a correctly amended Pigou analysis would advocate” (160.)

Of particular interest for my focus, Dahlman pointed out several implicit assumptions in Pigou’s argument. Pigou assumed without proof that there is in fact a divergence between private and social cost, nor did he show that non-government alternatives are always more expensive than government intervention. Furthermore, Pigou assumed without proof that the cost of compensating payments always exceeded the benefits to be gained. Pigou generally assumed the view that “when there are externalities, the market does not work, but the government does” regardless of the size, structure or the number of agents involved (155.) Dahlman countered that if the government, or an alternative process, cannot settle externalities more cheaply than the market, there is no difference at all between private and social cost (155.) Consequently, Dahlman rejected the Walrasian model as a conceptual framework – and thus Pigou’s analysis based on it – as unsuited for analyzing welfare and optimality problems (154.)

However, abandoning the formal Walrasian framework entails giving up a mathematical proof of efficiency. In the absence of analytic proof that the government or an alternative process can decrease the cost of internalizing side effects, it remains “an assertion, to be taken on faith. If this is what the word externality means, it may be noted *how utterly normative the concept is*” (155, emphasis mine.)

Dahlman’s conclusion is startling; in and of themselves, “transaction costs per se have nothing to do with externalities” (156;) rather, what is in play is a value judgment about how markets work. On the one hand, if one thinks that markets internalize costs, one will not recognize the existence of externalities; on the other hand, if one believes that markets do not internalize costs, one will believe in externalities as deviations from an attainable optimal state. Ultimately, how one resolves the question of externalities is based on the value judgment one brings to the analysis of whether or not markets internalize costs. Thus, “This is not science; it is metaphysics: value judgments and political goals will enter into the determination of whether externalities occur in our world” (156.) In Dahlman’s view it is doubtful that the term “externality” has any meaningful interpretation except as an indication of one’s political beliefs and value judgments (156.)

Dahlman’s conclusion opens a space for our common non-economic intuitions that there may be ethical dimensions to externalities that may or may not neatly reduce to Pareto efficient monetary settlements, and for which monetary settlements may not fully internalize the cost. As an economist this is beyond the scope of his argument, and he did not develop it further beyond a brief analysis of its policy implications. In future posts we will see that others have taken up the ethical dimension much more fully.

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