

STRATEGIC SPILLOVERS

Daniel B. Kelly

ABSTRACT

The traditional problem with negative externalities is that parties often generate harm as an unintended byproduct of their use of property. I examine situations in which parties may purposely seek to generate harm in their use of property, in order to extract payments from victims in exchange for desisting. Threatening to build a “spite fence” or other obtrusive structure unless a neighbor pays is perhaps the classic example from property law, but the problem is more pervasive. From opportunistic developers in land use planning to “pollution entrepreneurs” in modern environmental law, various parties often have an incentive to engage in externality-generating activities they otherwise would not have undertaken, or to increase the magnitude of harm given they are engaging in such activities, simply to profit through subsequent bargaining. After discussing the harm such “strategic spillovers” entail, I explore possible legal solutions for addressing the problem.

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INTRODUCTION

The classic problem of harmful externalities is well known. For example, in deciding whether to build a subdivision, a developer will consider its own costs but may ignore certain harms to others such as congestion on nearby roads or increased runoff on adjacent parcels. Similarly, in deciding whether to operate a factory, a firm typically will calculate its own costs but may disregard external adverse health effects arising from elevated concentrations of particulate matter. The primary reason these harms, so-called negative externalities, are socially problematic is straightforward: a party may have an incentive to engage in an activity because the activity's private benefits exceed its private costs even though, as a result of the externality, the activity is undesirable as its social costs exceed its social benefits.¹

Yet activities that entail negative externalities can be problematic for another reason as well: individuals and firms may *purposely* seek to generate harm in their use of property, in order to extract payments from victims in exchange for desisting. In certain circumstances, a party may engage in an externality-generating activity even though the activity's private costs exceed its private benefits, i.e., even though, in the absence of the externality, the party would not have had any incentive to engage in the activity. In other circumstances, private benefits may exceed private costs, but a party may still choose a suboptimal alternative because of the possibility of later obtaining a payment for agreeing

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¹ Economists have defined the term "externality" in various ways. Compare R.H. COASE, *THE FIRM, THE MARKET, AND THE LAW* 24 (1988) (defining externality as "the effect of one person's decision on someone who is not a party to that decision"), with Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 348 (1967) (defining externality as a situation in which one or more of the interacting parties does not have an incentive to internalize a harmful or beneficial effect). Pigou provided much of the seminal work on externalities in the first half of the twentieth century, see A.C. PIGOU, *THE ECONOMICS OF WELFARE* 172-203 (1932); A.C. PIGOU, *WEALTH AND WELFARE* 148-171 (1912), although, according to Coase, the term itself "appears to have been coined by [Paul] Samuelson in the 1950s," Coase, *supra*, at 23. For an historical overview of the concept, see generally ANDREAS A. PAPANDREOU, *EXTERNALITY AND INSTITUTIONS* 13-68 (1994) ("There is one persistent problem reiterated throughout the history of the notion of externality, and that is the sense that no good characterization of externality exists."). For a recent analysis and synthesis of the economic approach to external effects in the context of property rights, see STEVEN SHAVELL, *FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW* 77-109 (2004). For purposes of this Article, I use the terms "externality," "spillover," and "external effect" interchangeably, so an activity that entails a spillover effect or an external effect can be said to generate an "externality" even if the parties are capable of bargaining to resolve that effect.

to cease its activity. Externalities are thus not only an unintended byproduct of self-serving activities; they also can be utilized strategically as a means of extortion.²

Consider an example from the City of Chicago. During the late nineteenth century, a series of disputes arose regarding the location of livery stables. These stables provided horse owners with a place to board their animals, but they also created a number of unpleasant side effects—noise and light, congestion, and the smell of manure.³ Under Illinois law, the determination of whether any particular stable constituted a nuisance was made only after the stable was operational.⁴ A proposal to build a stable would therefore jeopardize the quiet enjoyment, as well as the property values, of nearby residents.⁵ A number of enterprising individuals, recognizing an opportunity, “developed a regular practice of buying vacant lots in residential subdivisions, threatening to build a stable, and then extorting a steep price from the neighbors to be bought out.”⁶ This practice was widespread and became known as the “livery stable scam.”⁷

² Coase briefly mentions the possibility that an individual might undertake an action to induce another to pay a higher sum in subsequent bargaining. See Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 7-8 (1960) (discussing the possibility that farmers might plant excess crops or ranchers might purchase extra cattle to augment their bargaining positions). Writing in the wake of Coase, two economists, George Daly and J. Fred Giertz, analyzed whether private bargaining might lead to a misallocation of resources if parties engaged in externality-generating activities for extortionate purposes. See George Daly & J. Fred Giertz, *Externalities, Extortion, and Efficiency*, 65 AM. ECON. REV. 997, 998 (1975) (criticizing the “Coase-inspired” literature for failing to note that “if bargaining is possible there is no a priori reason for ignoring the existence and consequences of externally harmful externalities which fail to yield direct private benefits but can yield profitable side payments”). This article led to a brief exchange on the issue between Daly and Giertz and several other economists. See Harold Demsetz, *On Extortion: A Reply*, 68 AM. ECON. REV. 417 (1978); Daniel W. Bromley, *Externalities, Extortion, and Efficiency: Comment*, 68 AM. ECON. REV. 730 (1978); George Daly & J. Fred Giertz, *Externalities, Extortion, and Efficiency: Reply*, 68 AM. ECON. REV. 736 (1978) [hereinafter Daly & Giertz Reply]. As discussed below, my analysis of strategic spillovers differs in important respects from these early articles that mention or discuss the possibility that a party might use externalities for extortionate purposes.

³ See Fred P. Bosselman, *The Commodification of “Nature’s Metropolis”: The Historical Context of Illinois’ Unique Zoning Standards*, 12 N. ILL. U. L. REV. 527, 569 (1992) (“Livery stables produced certain externalities that their neighbors found undesirable. In addition the accumulation of horse manure, the stables typically brought noise and lights late in the evening and early in the morning and created the nineteenth century equivalent of what we would call traffic and parking problems.” (citing *Oehler v. Levy*, 139 Ill. App. 294 (1907))), excerpted in ROBERT C. ELLICKSON & VICKI L. BEEN, *LAND USE CONTROLS: CASES AND MATERIALS* 395 (3d ed. 2005).

⁴ See *id.* (citing *Sheldon v. Weeks*, 51 Ill. App. 314, 315 (1893) (“Courts may and often do restrain the creation of nuisances, but it can not be known in advance that this stable will be a nuisance. . . . If this contemplated stable shall be kept so as to be a nuisance, a court of equity may then interfere.”)).

⁵ See *id.* at 569-70.

⁶ *Id.* at 570.

⁷ *Id.* (citing ANDREW L. KING, *LAW & LAND USE IN CHICAGO* 245-48 (1986)). The externalities arising from stables created conflicts in other cities as well. See, e.g., *Reinman v. City of Little Rock*, 237 U.S. 171, 174 (1915) (affirming reversal of injunction against enforcement of municipal ordinance prohibiting operation of livery stables in a designated area of Little Rock, Arkansas, where defendants averred that “there is always an offensive odor coming from said stables, to the great detriment of the tenants in the

As one might expect, this type of opportunistic behavior was not limited to livery stables in the Windy City. With the rapid growth of San Francisco following the Gold Rush, many land uses, including “[s]laughterhouses, chandleries, soap and acid factories, charcoal burners, and other petty manufacturers whose trades had offensive side effects,” imposed significant costs on San Francisco residents.⁸ Affluent residents sometimes offered to buy neighboring parcels to avoid these costs: “When J. Wieland proposed to put a brewery at the corner of Folsom and Second, in an aristocratic area, the ‘indignant’ residents ‘authorized fellow resident Milton S. Latham [a lawyer and politician] . . . to wait upon [Mr. Wieland] and make an offer of purchase for the property.’”⁹ As in Chicago, some of these transactions involved behavior that could be characterized as extortionate; according to one newspaper account, “a speculator had purchased a lot in a respectable section for the purpose of establishing a house of prostitution on it, knowing full well that the residents would buy him out at an inflated price.”¹⁰

Notwithstanding the advent of “Euclidean” zoning in the twentieth century,¹¹ similar types of conflicts have continued to arise in residential areas. For example, in 2004, Randall Collins and his wife purchased a home in a new subdivision of Springdale, Arkansas. However, when neighbors learned that Collins had a pair of prior criminal convictions for sexual abusing his nieces,¹² several residents threatened to move if Collins did not. The developer, unable to sell any of the subdivision’s remaining homes, sued Collins, his wife, and their realtor for failing to disclose Collins’s criminal history.¹³ The complaint alleged, among other things, that Collins had called the developer and offered to leave the neighborhood in exchange for \$250,000; otherwise, he threatened to “stay there and kill their subdivision.”¹⁴ Similarly, in 2005, residents in Goshen, Ohio discovered that their new neighbor, David Lanford, was classified as a “sexual predator” under Ohio law.¹⁵ This time, instead of threatening to move, residents recruited a new

property adjoining and the shoppers who go within this district, and hotel guests; that said stables being in such densely populated part of the city produce disease, making that extremely unwholesome”).

⁸ ROGER W. LOTCHIN, *SAN FRANCISCO 1846-1856* (1974), *excerpted in* ELLICKSON & BEEN, *supra* note 3, at 609 (alterations in ELLICKSON & BEEN).

⁹ *Id.*

¹⁰ *Id.* (citing the *Daily Alta*, *see* http://en.wikipedia.org/wiki/The_Daily_Alta_California).

¹¹ “The term ‘Euclidean’ zoning describes the early zoning concept of separating incompatible land uses through the establishment of fixed legislative rules” 1 ZIEGLER, RATHKOPF’S *THE LAW OF ZONING AND PLANNING* (4th ed. rev. 1994), § 1.01(c), at 120.

¹² *See Collins v. State*, No. CACR97-407, 1998 WL 75661 (Ark. Ct. App. Feb. 11, 1998).

¹³ Associated Press, *Sex Offender Sued for Slow Home Sales*, N.Y. TIMES (Feb. 7, 2005).

¹⁴ *Id.*

¹⁵ Reid Forgrave, *Sex Offender’s Neighbors Giving Him Money To Move*, CINCINNATI ENQUIRER, at 1C (Mar. 24, 2005).

buyer for Lanford's home and offered Lanford \$20,000 in "moving expenses" if he agreed to leave the neighborhood. One local prosecutor opined that the neighbors' offer, which Lanford planned to accept, was "perfectly legal and not considered extortion."¹⁶

Admittedly, disputes involving livery stables in Chicago, breweries and bordellos in San Francisco, and sexual offenders in Arkansas and Ohio involve rather idiosyncratic circumstances. But these situations are merely illustrative of a larger issue: individuals and firms often have an incentive to engage, or threaten to engage, in activities that entail harmful spillovers to profit by then agreeing not to engage in these activities in exchange for a payment. For example, a landowner may threaten to build a "spite fence" or other obtrusive structure that would disrupt a neighbor's view or the neighbor's access to light and air unless the neighbor agrees to pay the owner not to build. A firm deciding where to locate a new factory, quarry, or other facility involving harmful effects such as pollution, congestion, or noise may choose a location that is more likely to conflict with future development because it knows that, if a development eventually does reach its facility, it may be able to obtain a higher price for its parcel. A company planning to install an environmentally-friendly technology in one of its factories may refrain from doing so, even if it would increase the company's profits, in order to acquire a public subsidy for reducing its emissions. A developer planning not to build on a particular piece of property may nevertheless announce a construction project to secure an elevated price from a municipality seeking to preserve the land as open space. And, as the "livery stable scam" suggests, a party may engage in any number of nuisance-like activities to extract a payment from those bearing the activity's external effects.¹⁷

These examples illustrate the difference between conventional externalities and strategic spillovers. For conventional externalities, self-interested individuals and profit-maximizing firms are typically only concerned with the costs and benefits that will be internalized.¹⁸ Thus, under traditional theory, a negative externality is of zero value to

¹⁶ *Id.* Query, though, whether the external "costs" residents may experience as a consequence of residing in the same neighborhood as a released sexual offender are costs society should recognize. Cf. Suzanna Hartzell-Baird, *When Sex Doesn't Sell: Mitigating the Damaging Effect of Megan's Law on Property Values*, 35 REAL EST. L. J. 353 (2006) (concluding that "it is unlikely that a nuisance claim would be granted against a sex offender moving into a residential neighborhood" because "fear derived from someone's past capacity for criminal activity" is typically not a legitimate basis for injunctive relief).

¹⁷ Following Coase, my focus is on activities that involve non-pecuniary, as opposed to pecuniary, externalities. See J.J. Laffont, *Externalities*, THE NEW PALGRAVE DICTIONARY OF ECONOMICS (Steven N. Durlauf & Lawrence E. Blume, eds., 2d ed. 2008); cf. Clifford G. Holderness, *The Assignment of Rights, Entry Effects, and the Allocation of Resources*, 18 J. LEGAL STUD. 181, 184 n.9 (1989) ("Consistent with the title of his article, 'The Problem of Social Cost,' Coase limits all of his examples and, presumably, his analysis, to physical interferences between individuals."). Thus, I do not consider activities that involve external effects relating to prices rather than resources.

¹⁸ The usual assumption is that, in the absence of a corrective tax or subsidy, neither external costs nor external benefits will affect the party's incentive to engage in an action. See, e.g., Brett M. Frischmann & Mark A. Lemley, Essay, *Spillovers*, 107 COLUM. L. REV. 257, 259 (2007) (citing RICHARD CORNES & TODD SANDLER, *THE THEORY OF EXTERNALITIES, PUBLIC GOODS, AND CLUB GOODS* 55 (1996) ("[T]he only motive that an individual has to provide units of such a good is his or her own private motive of present or future consumption. Enjoyment of those units by others is an incidental by-product.")).

the individual or firm generating the externality. By contrast, under my theory, because the individual or firm may be able to extract a payment in exchange for ceasing its externality-generating activity, this negative externality has a *positive* value to the individual or firm. Because of this positive value, the individual or firm has an incentive to take into account external costs in deciding whether or not to engage in the activity.

For this reason, seemingly “irrelevant externalities” actually may be relevant.¹⁹ Even if a party does not have a sufficient incentive to undertake an activity with harmful effects (such as building a fence or operating a factory), the effects of such activities are not necessarily irrelevant. The party can threaten to impose harm on others (blocking the view of a neighbor or emitting pollution on nearby residents) unless a payment is made not to engage in the externality-generating activity. Conversely, even if a party does have a sufficient incentive to undertake an activity with beneficial effects, these effects are not necessarily irrelevant. The party can threaten to withhold such benefits unless a payment is made to engage in the externality-generating activity.

However, these types of “strategic spillovers” are not only relevant; from a social perspective, they are problematic. Parties often will bargain to resolve external effects, so attempts to extract payments by threatening to engage in strategic spillovers will have significant distributional effects, even if bargaining is costless. If bargaining is not costless, these threats reduce social welfare because parties will incur transaction costs without engaging in any productive activity. But the problem with strategic spillovers is not just a matter of needless transaction costs. Rather, parties may invest time and resources to engage in externality-generating activities, or in the steps antecedent to such activities, either because doing so is necessary to establish the credibility of their threats or because *ex ante* bargaining is infeasible. These investments, which parties otherwise would not have undertaken, are a social waste. Moreover, potential victims, knowing parties may engage in such activities, may undertake wasteful precautions as well.

To prevent strategic spillovers, it is therefore necessary to identify opportunistic behavior. Sometimes this may be possible, especially in those situations, like the livery stable scam, in which neighbors themselves are capable of acquiring information regarding a party’s actual motivation. Yet, it is usually difficult to determine whether a party that is engaging in an externality-generating activity is doing so *despite* the harm being imposed on others or *because of* the harm being imposed on others. In the case of a firm deciding where to locate a facility, for example, it is unlikely that, if the firm locates its facility in close proximity to an existing development and a conflict eventually does arise, the firm’s internal deliberations in selecting this site, which may have occurred many years earlier, will be discoverable.

¹⁹ On the notion of irrelevant externalities, *see generally* David D. Haddock, *Irrelevant Externality Angst*, 19 J. INTERDISCIPLINARY ECON. 3 (2008) (pointing out that previous work among economists, including James M. Buchanan & William C. Stubblebine, *Externality*, 29 ECONOMICA 371 (1962), has “discussed how external effects can be irrelevant to efficient resource allocation”).

Because of the difficulty of distinguishing between externality-generating activities that parties would have undertaken even in the absence of external harm and externality-generating activities that parties would not have undertaken in the absence of such harm, many of the traditional mechanisms for resolving conventional externalities are problematic for addressing strategic spillovers. Notably, attempting to resolve strategic spillovers through bargaining leads to perverse outcomes. Bargaining enables opportunistic parties to extract payments from potential victims.²⁰ But regulation is also problematic. Prohibiting all possibly troublesome instances of an externality-generating activity would eliminate not only the undesirable activities that entail strategic spillovers but also the desirable activities that entail non-opportunistic spillovers.

If bargaining allows too many externality-generating activities and regulatory prohibitions enable too few externality-generating activities, one alternative is to expand the use of either liability rules or corrective taxes. Increasing the use of liability rules or corrective taxes would force parties who are engaging in externality-generating activities to pay either victims (in the case of liability rules) or the government (in the case of corrective taxes) for the harm being imposed. If forced to internalize this harm, opportunistic parties would not have an incentive to extract payments from potential victims. However, the problem with expanding the use of liability rules or corrective taxes is that, to separate strategic spillovers from non-opportunistic externalities, courts or administrative agencies would have to impose liability on each party that is engaging in an externality-generating activity. Whether the litigation costs of imposing liability on each party or the administrative costs of imposing taxes on each party would outweigh the benefits of deterring strategic spillovers is ultimately an empirical question that depends on circumstances of a particular externality-generating activity.

Another possibility is for courts to refrain from enforcing certain contracts between strategic parties and potential victims. By refusing to enforce contracts in which strategic parties agree to cease their externality-generating activities in exchange for payments, courts might eliminate the incentive for these parties to impose externalities opportunistically. Knowing a contract is unenforceable, potential victims usually would be unwilling to pay strategic parties; and, strategic parties, realizing potential victims are unwilling to pay, typically would be unable to extract payments. But the difficulty with non-enforcement is that in many situations the determination of whether or not a particular party is behaving strategically is either not observable or not verifiable. Whether non-enforcement is effective thus depends on (i) the expected benefits of deterring opportunistic parties from engaging in strategic spillovers, (ii) the magnitude of the error costs of mistakenly deterring self-interested behavior that may be socially desirable, and (iii) the administrative costs of distinguishing between strategic spillovers and non-opportunistic externalities. To be sure, in many cases such determinations may

²⁰ See Daly & Giertz, *supra* note 2, at 997 (“Critics have noted that the reliance on private bargaining to control the creation of externally harmful activities may well have the adverse effect of encouraging the very phenomena it seeks to control.” (citing Jerome Rothenberg, *The Economics of Congestion and Pollution: An Integrated View*, 60 AM. ECON. REV. 114 (1970) and E.J. Mishan, *The Postwar Literature on Externalities: An Interpretative Essay*, 9 J. ECON. LIT. 1 (1971))).

be difficult; however, attempting to address, rather than continuing to ignore, this type of strategic behavior may be a worthwhile endeavor.

The discussion that follows proceeds in three parts. First, I suggest that strategic spillovers actually arise in a variety of legal contexts. Accordingly, I explore several variations of the problem in the context of real property law, land use planning, and environmental law. Second, I contend that the problem with such spillovers is actually more obvious, yet ultimately more troublesome, than the few economists who have noticed the issue appear to suggest. Specifically, strategic spillovers are problematic not only because they may result in inappropriate distributions of wealth or needless transaction costs but also because opportunistic parties will engage in wasteful activities, either to establish the credibility of their threats or because ex ante bargaining is infeasible, and potential victims will undertake wasteful precautions. Third, I show why many of the usual mechanisms for addressing conventional externalities, including bargaining and regulation, are generally inadequate for resolving strategic spillovers. I thus explore several alternative mechanisms by which either policymakers or the courts might attempt to address these spillovers.

I. EXAMPLES OF STRATEGIC SPILLOVERS

A. *Constructing Spite Fences and Spite Structures*

Landowners sometimes construct fences or other structures they know their neighbors will not appreciate.²¹ These structures might interfere with access to light, prevent the circulation of air, or obstruct a particular view.²² Under the doctrine of “ancient lights,” the common law courts of England would grant a prescriptive easement to an individual who continuously enjoyed access to light, air, or a view.²³ American courts, although initially incorporating this doctrine into their own common law traditions, ultimately rejected the doctrine.²⁴ However, American courts did recognize a

²¹ One Utah farmer, for example, recently “erected a fence in his backyard made of three old cars sticking up in the air to send a message to new neighbors.” *‘Redneck Stonehenge’: Utah Farmer Builds Fence From Wrecked Autos to Send Message to Neighbors*, ASSOCIATED PRESS, Aug. 5, 2008. When neighbors complained about dust from his farm, the farmer had offered to build a fence and to pay for half of the costs, but the neighbors refused, complaining that the fence might block their views. *Id.* The farmer indicated that “the cars were planted out of humor rather than spite.” *Id.*

²² Perhaps the most famous example is *Fontainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.*, 114 So. 2d 357 (Fla. App. 3 Dist. 1959), in which the owner of the Fontainebleau, the “premier hotel of Miami Beach,” constructed a windowless “spite wall” facing the Eden Roc hotel and casting a shadow over its pool. THOMAS W. MERRILL & HENRY E. SMITH, *PROPERTY: PRINCIPLES AND POLICIES* 1005 (2007).

²³ See *Prah v. Maretti*, 321 N.W.2d 182, 188 (1982) (“Under the doctrine of ancient lights if the landowner had received sunlight across adjoining property for a specified period of time, the landowner was entitled to continue to receive unobstructed access to sunlight across the adjoining property.”).

²⁴ See *Lucas v. Planning Bd. of Town of LaGrange*, 7 F.Supp.2d 310, 324 (S.D.N.Y. 1998) (“The English doctrine of ‘Ancient Lights’ has been universally repudiated in this nation. Accordingly, American courts, including those in New York, recognize an absolute right to build on one’s property regardless of the impact on the light or views of adjacent landowners.”); *Prah*, 321 N.W.2d at 188 (“American courts

limited number of exceptions including the “spite fence” doctrine.²⁵ This doctrine prohibits a landowner from constructing a fence that interferes with a neighbor’s access to light, air, or a view if the landowner’s motivation is spiteful or malicious.²⁶ Most state courts require that spite or malice be the sole, or at least the dominant, motivation for the interference.²⁷

Sometimes a fence or other structure that interferes with a neighbor’s access to light, air, or a view is constructed not out of malice or for spite but rather to extract a financial payment from the neighbor.²⁸ For example, in the classic English case of *Hardie & Lane, Ltd. v. Chilton*, the court poses the following hypothetical:

initially enforced the English common law doctrine of ancient lights, but later every state which considered the doctrine repudiated it as inconsistent with the needs of a developing country.”).

²⁵ See ELLICKSON & BEEN, *supra* note 3, at 520 (“Although American nuisance law generally does not protect interests in light, air, and view, a number of important exceptions have been carved out. The spite-fence doctrine was one of the earliest to evolve.”); JOSEPH WILLIAM SINGER, *PROPERTY LAW: RULES, POLICIES, AND PRACTICES* (3d ed. 2002) (“The vast majority of courts in the United States would hold that, in the absence of an agreement to the contrary, owners have absolute rights to develop their property without liability for any interference with their neighbor’s interests in light and air. . . . One exception to this principle is that some courts will enjoin ‘spite fences’ . . .”).

²⁶ See *Prah*, 321 N.W.2d at 189 (noting that “a landowner’s interest in sunlight has been protected in this country by common law private nuisance law at least in the narrow context of the modern American rule invalidating spite fences”). It is worth noting that many states have now enacted “spite-fence statutes,” which explicitly identify the circumstances in which a court may grant relief (sometimes an injunction, sometimes damages) if an individual maliciously constructs a structure to interfere with another’s access to light, air, or a view. See, e.g., R.I. Gen. Laws § 34-10-20 (Supp. 2004) (“A fence or other structure in the nature of a fence which unnecessarily exceeds six feet (6’) in height and is maliciously erected or maintained for the purpose of annoying the owners or occupants of adjoining property, shall be deemed a private nuisance, and any owner or occupant who is injured, either in the comfort or enjoyment of his or her estate thereby, may have an action to recover damages for the injury.”).

²⁷ Compare *Austin v. Bald II, LLC*, 658 S.E.2d 1 (N.C. App. 2008) (“A spite fence is one which is of no beneficial use to the owner and which is erected and maintained solely for the purpose of annoying a neighbor.” (quoting *Welsh v. Todd*, 133 S.E.2d 171, 173 (N.C. 1963))), with *Wilson v. Handley*, 97 Cal. App. 4th 1301, 1313 (Cal. App. 2002) (adopting “the ‘dominant purpose’ test for determining whether the ‘malice’ element of [California’s spite fence statute] has been satisfied”). But cf. *Stewart E. Sterk, Neighbors in American Land Law*, 87 COLUM. L. REV. 55, 62 (1988) (noting that several cases have held that “landowners may build whatever structures they please on their own land, whatever their underlying motives, subject only to applicable zoning restrictions” (citing *Cohen v. Perrino*, 50 A.2d 348 (Pa. 1947))).

²⁸ See, e.g., Mark Tushnet, *Spite Fences and Scholars: Why Race Is and Is Not Different*, 26 CONN. L. REV. 285, 286 (1993) (considering the situation involving “a suit by your neighbor claiming that you have erected a spite fence simply to inflict financial harm”); Douglas H. Ginsburg & Paul Shechtman, *Blackmail: An Economic Analysis of the Law*, 141 U. PA. L. REV. 1849, 1860-64 (1993) (analyzing the circumstances in which an owner may build a fence higher than the owner would have otherwise desired to extract a payment through bargaining); Sterk, *supra* note 27, at 84 (pointing out that, if a fence builder “can construct a fence at low cost that inflicts great hardship on his neighbor, he might be able to extract money from his neighbor to remove the fence”).

A. has land facing a new house of B.'s. A. proposes to build on that land a house which will spoil the view from or light to B.'s house and depreciate the value of his property. B. implores A. not to build. A. says: 'I will not build if you pay me 1,000£, but I shall build if you do not.' B. pays the money and A. does not build. Could it be seriously argued that B. could recover the money back as obtained by threats?²⁹

The possibility of building a fence or structure that imposes harm on a neighbor and then bargaining for a payment not to impose such harm is an example of a strategic spillover.³⁰

Suppose you have just finished constructing a hotel in Maui. Among the hotel's attractions are beautiful rooms with breathtaking views and a majestic lobby leading to a state-of-the-art pool. The day after your opening, you find out that "the Donald" has purchased a parcel of land adjacent to your hotel. Unbeknownst to you, Donald prefers not to develop this land. Nevertheless, you receive a letter from Donald in which he discloses a plan to construct a hotel and casino on his parcel. Donald also encloses a "blue-print" indicating that his resort will block the views from your rooms and cast a shadow across your pool. Furious, you immediately call Donald who, after listening patiently to your concerns, indicates that, as a reasonable businessman, he is willing *not* to build the resort if you agree to pay him \$20 million.

To see why this situation involves a strategic spillover, suppose that Donald expects to obtain an annual benefit of \$70 million from operating the resort. But assume that the cost of operating the resort is \$80 million per year. Normally, under these circumstances, Donald would not build the resort because building the resort would result in a loss of \$10 million (i.e., \$70 million – \$80 million). Thus, if Donald compared the private benefits of operating the resort with the private costs of operating the resort, Donald would not engage in this activity.

However, Donald realizes his construction of the resort imposes external costs on you because it makes your hotel less profitable. Before Donald arrived, you expected to earn \$90 million; now, if Donald decides to build his resort, you estimate your revenue will be \$60 million, a loss of \$30 million. Under these circumstances, you may be willing to pay Donald up to \$30 million if Donald agrees either to refrain from building his resort or to build his resort in such a way that it will not affect your property. Thus,

²⁹ 2 K.B. 306, 316 (1928). Likewise, Mitchell Berman refers to philosopher Robert Nozick's discussion of the "deceptively tricky case" involving "B's threat to build a structure on his land that will block the view of his neighbor A, unless A pays B \$1,000." Mitchell N. Berman, *The Evidentiary Theory of Blackmail: Taking Motives Seriously*, 65 U. CHI. L. REV. 795 n. 230 (1998) (citing Robert NOZICK, ANARCHY, STATE, AND UTOPIA 84-85 (1974)).

³⁰ Cf. Larry Alexander, *Is Morality Like the Tax Code?*, 95 MICH. L. REV. 1839, 1843 (1997) (suggesting problem with building spite fences and undertaking similar activities "consists of intentionally exploiting another's vulnerability, making the actor better off than she would be had the victim not existed, and—importantly—making the victim worse off than she would be had the actor not existed" (reviewing LEO KATZ, *ILL-GOTTEN GAINS: EVASION, BLACKMAIL, FRAUD AND KINDRED PUZZLES OF THE LAW* (1996))).

because of the possibility of extracting payments from you, Donald has a perverse incentive to threaten to construct the resort or to begin constructing the resort and then attempt to extract a payment.³¹

The possibility of a strategic spillover here suggests that most of the existing statutes regarding spite fences and spite structures are underinclusive. If you attempted to enjoin Donald's construction of this resort, you would be unlikely to succeed, at least under most "spite-fence statutes," because you would be unable to show that Donald's "sole" purpose, or even that his "dominant" purpose, in operating his resort was malicious. After all, Donald's private benefits from the project are not zero; they are substantial. As a result of operating his resort, Donald is capable of receiving revenue of \$40 million. A more precise statute would seek to prohibit the construction of any structure that would not have been built but for the possibility of extracting a payment.

B. *Locating Nuisance-Like Activities*

Ronald Coase briefly mentions the possibility of this type of opportunistic behavior in considering nuisance rules in *The Problem of Social Cost*:

It might be thought that it would pay the cattle-raiser [when the cattle-raiser was not liable for damage] to increase his herd above the size that he would wish to maintain once a bargain has been made, in order to induce the farmer to make a larger total payment. And this may be true. It is similar in nature to the action of the farmer (when the cattle-raiser was liable for damage) in cultivating land on which, as a result of an agreement with the cattle-raiser, planting would subsequently be abandoned (including land which would not be cultivated at all in the absence of cattle-raising).³²

Coase ultimately chooses not to address the issue, dismissing the strategic "manoeuvres" that cattle-raisers and farmers might take as mere "preliminaries to an agreement" that "do not affect the long-run equilibrium position, which is the same whether or not the cattle-raiser is held responsible for the crop damage brought about by his cattle."³³

³¹ As explained below, Donald might begin to construct the resort in order to make his threat credible. See *supra* Part II.A.

³² Coase, *supra* note 2, at 7-8. Coase points out this possibility because of a conversation he had with Professor David Cavers that occurred when both Coase and Cavers were fellows at the Center for Advanced Study of the Behavioral Sciences at Stanford:

When I discussed my ideas with [David Cavers] he pointed out, correctly, that if someone had a right to commit a nuisance, he might threaten to create that nuisance simply to extract money from those who would be harmed by it, in return of course for agreeing not to do so. In effect, Cavers felt that what I was advocating would lead to blackmail or something analogous to it.

Ronald H. Coase, *The 1987 McCorkle Lecture: Blackmail*, 74 VA. L. REV. 655, 657 (1988).

³³ Coase, *supra* note 2, at 8. Coase later revisits the issue in Ronald H. Coase, *The 1987 McCorkle Lecture: Blackmail*, 74 VA. L. REV. 655 (1988), but his analysis and closing remarks—in which he

Many strategic spillovers do involve nuisance-like activities. For example, in her work on eminent domain, Lee Anne Fennell discusses the “particularly troubling” situation in which owners of property that is blighted might share in an assembly’s surplus.³⁴ Fennell notes that “[t]he incentives for extortionate behavior are clear enough if people are allowed to create bad situations and then glean some of the surplus associated with relieving the negative condition.”³⁵ She compares such situations to a claim that “someone who is making hideous music on the sidewalk has a right to some of the surplus associated with stopping the racket.”³⁶ In these circumstances, as well as situations involving livery stables, spite fences and spite structures, and Coase’s cattle-raiser and farmer, a strategic party might attempt to extract a payment by bargaining with potential victims *before* initiating its externality-generating activity.

In contrast to situations in which such *ex ante* bargaining is feasible, there are other situations in which *ex ante* bargaining is infeasible. For example, a firm that is planning to construct a new factory, quarry, or other facility that entails harmful spillovers may have an incentive to build its facility in a suboptimal location that is more likely to conflict with future development. The reason is that the firm anticipates that, if a conflict does arise, it may be able to bargain with the future developer or future homeowners and obtain a payment, e.g., a higher sales price.³⁷ Here it is not possible for the firm to bargain with the developer or the homeowners beforehand because, at the time of deciding where to locate its facility, these parties are not yet known.

Consider the following hypothetical. Mr. Slate, the CEO of Slate Rock & Gravel, Inc., must select the site for a new quarry. Slate has two alternatives, both of which are acceptable to him, i.e., the private benefits exceed the private costs. Slate could locate the quarry in a “rural” area. If Slate locates the quarry in the rural area, there is no possibility of any conflict with future suburban development. Alternatively, Slate could locate the quarry in an “exurban” area. If Slate locates the quarry in the exurban area, there is a possibility of conflict with future suburban development, although the likelihood of conflict depends on the direction of suburban growth. See Figure 1. Even if

indicates that whether the “British solution” for targeting blackmail (essentially, “leav[ing] it up to the prosecutors, juries, and judges to be sensible”) “is the best that can be done is a question for lawyers to decide,” *id.* at 676—seem to suggest that Coase believed the problem is difficult and, perhaps, intractable.

³⁴ Lee Anne Fennell, *Taking Eminent Domain Apart*, 2004 MICH. ST. L. REV. 957, 986 (2004).

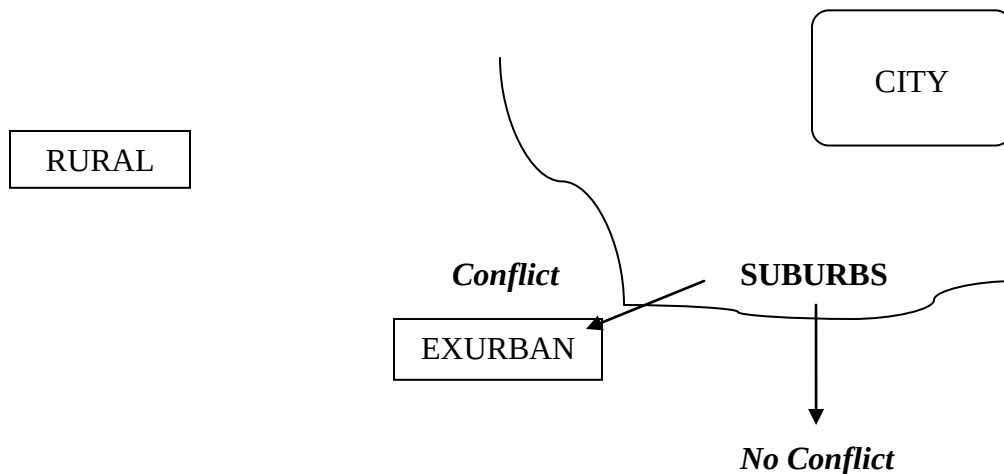
³⁵ *Id.*

³⁶ *Id.* (citing Randy Cohen, *The Ethicist: Pay for No Play?*, N.Y. TIMES MAG., Nov. 28, 2004, at 66).

³⁷ While previous empirical research suggests that proximity to parcels containing nuisance-like activities has a *negative* effect on the prices of single-family homes, see, e.g., Arthur C. Nelson et al., *Price Effects of Landfills on House Values*, 68 LAND ECON. 359 (1992); David M. Grether & Peter Mieszkowski, *The Effects of Nonresidential Land Uses on the Prices of Adjacent Housing: Some Estimates of Proximity Effects*, 8 J. URB. ECON. 1, 15 (1980), the contention here is that proximity to single-family homes may have a *positive* effect on the prices of parcels containing nuisance-like activities.

Slate does not intend to impose external costs on future homeowners, he still may have an incentive, because of the possibility of subsequent bargaining, to choose the suboptimal site that entails some likelihood of conflict.

Figure 1
Mr. Slate's Options of Where To Locate His Quarry:
Rural or Exurban



Assume that if Slate chooses to locate his factory in the rural area he will obtain a private benefit of 18, at a private cost of 9, for a net benefit of 9. By contrast, if Slate chooses to locate his factory in the exurban area he will obtain a private benefit of 21, at a private cost of 9, for a net benefit of 12. Assume as well that the existing suburbs can develop in one of two directions and that this development is exogenous, i.e., it does not depend in any way on whether Slate chooses rural or exurban. For either direction in which the suburbs develop, the net benefit for the new homeowners will be 40 (ignoring, for the moment, any potential conflicts with Slate's quarry). However, while the likelihood of suburban development reaching the rural site is 0, the likelihood of suburban development reaching the exurban site is 0.5. Thus, if Slate chooses rural, there is no possibility of conflict, and there are no external costs imposed by the quarry on the homeowners or vice-versa. By contrast if Slate chooses exurban, there is a fifty-fifty chance of conflict; if there is a conflict, the new homeowners impose costs of 8 on the quarry—assume Slate's trucks will have to battle more traffic congestion—while the quarry imposes costs of 12 on the new homeowners—assume the homeowners will experience noise and dust from blasting within the quarry.

Under these circumstances, what is the socially optimal outcome, and will Slate have an incentive to choose this outcome? The social welfare function here is simply the net benefits to Slate plus the net benefits to the homeowners. If Slate chooses rural, there is no possibility of conflict and social welfare is Slate's net benefits from rural (9), plus the homeowners' net benefits from rural (40), for a total of 49. If Slate chooses exurban, there is a fifty-fifty chance of conflict with the future development. If there is no conflict, then social welfare is Slate's net benefits from exurban (12), plus the homeowners' net

benefits from exurban (40), for a total of 52. If there is a conflict, then social welfare is Slate's net benefits from exurban (12), minus the external costs imposed by the homeowners (8), plus the homeowners' net benefits from exurban (40), minus the external costs imposed by Slate (12), for a total of 32. Because there is a fifty-fifty chance of a conflict, the expected net benefit of Slate choosing exurban will be 42 (i.e., $0.5 \times 52 + 0.5 \times 32$). The net benefit if Slate were to choose the rural site (49) is thus greater than the expected net benefit if Slate were to choose the exurban site (42). Thus, the socially desirable outcome is for Slate to choose the rural site. See Table 1.

Table 1
Social Welfare of Mr. Slate and Suburban Homeowners

Location	Slate	Homeowners	Total
Rural			
No Conflict	9	40	*49*
Exurban			
No Conflict	12	40	52
Conflict	12 – 8	40 – 12	32
Expected	0.5 (12 + 4)	0.5 (40 + 28)	42

Whether or not Slate will choose the socially desirable outcome of rural depends, however, on Slate's *private* benefits and costs. It is therefore necessary to compare the benefit Slate would obtain from choosing rural with the benefit Slate would obtain from choosing exurban. Assume, for now, that Slate and the homeowners cannot bargain either ex ante (i.e., before Slate chooses a site) or ex post (i.e., after Slates chooses a site). If Slate chooses to locate the quarry in the rural site, there is no possibility of conflict with future development and Slate's net benefit is 9, the difference between his private benefit (18) and his private costs (9). If Slate chooses to locate the quarry in exurban, there is a fifty-fifty chance of conflict with future development. If there is no conflict, then Slate's net benefit is 12, the difference between his private benefit (21) and the private costs (9). If there is a conflict, then Slate's net benefit is only 4, the difference between his private benefit (21) and the sum of both his private costs (9) and the costs he would incur because of his proximity to the homeowners (8). Because there is a fifty-fifty chance of a conflict, Slate's expected net benefit is 8, the average of his net benefit with no conflict and his net benefit with a conflict (i.e., $0.5 \times 12 + 0.5 \times 4$). In the absence of bargaining, Slate will thus choose the rural site, rather than the exurban site, because the net benefit of rural (9) is greater than the expected net benefit of exurban (8). Slate's decision to locate his quarry on the rural site is desirable from a social perspective. See Table 2.

Table 2
Mr. Slate's Strategy With No Bargaining

Location	Benefit	Cost	Net Benefit
Rural			
No Conflict	18	9	*9*
Exurban			
No Conflict	21	9	12
Conflict	21	9 + 8	4
Expected	0.5 (21 + 21)	0.5 (9 + 17)	8

But now compare the net benefit Slate would obtain from choosing the rural site with the net benefit Slate would obtain from choosing the exurban site if bargaining is infeasible ex ante but feasible ex post. If Slate chooses to locate the quarry in the rural site, there is no conflict and Slate's net benefit is 9, the difference between his private benefit (18) and the private costs (9). This result is the same whether or not bargaining is feasible ex post because the parties have no reason to bargain if there is no conflict. If Slate chooses to locate the quarry in the exurban site, there is still a fifty-fifty chance of a conflict. If Slate chooses exurban and there is no conflict, then Slate's net benefit is 12, the difference between his private benefit (21) and the private costs (9). Again, this result is the same whether or not bargaining is feasible ex post.

However, if Slate chooses exurban and there is a conflict, then Slate and the homeowners are likely to engage in bargaining for there exists a range of mutually agreeable bargains in which both parties would be better off. Specifically, Slate will be willing to accept any offer above 4 not to operate the quarry (because 4 is Slate's net benefit from operating the quarry in the absence of bargaining) and the homeowners will be willing to offer Slate any amount up to 12 not to operate the quarry (because 12 is the external cost the quarry imposes on the homeowners). If we assume the homeowners agree to pay Slate at least 4, the minimum amount that Slate will accept to cease its operations, and the parties divide the surplus evenly ($(12 - 4) / 2 = 4$) so that Slate receives an additional 4, then Slate's net benefit would be 8 ($4 + 4$). Because there is a fifty-fifty chance of a conflict, Slate's expected net benefit is 10 (i.e., $0.5 \times 12 + 0.5 \times 8$). With the possibility of bargaining, Slate will thus choose the exurban site, rather than the rural site, because the net benefit of rural (9) is less than the expected net benefit of exurban (10). Slate chooses the exurban site even though, from a social perspective, choosing the exurban site is undesirable. See Table 3.

Table 3
Mr. Slate's Strategy With Bargaining

Location	Benefit	Cost	Net Benefit
Rural			
No Conflict	18	9	9
Exurban			
No Conflict	21	9	12
Conflict	4 + 0.5 (12)	0	8
Expected	0.5 (21 + 8)	0.5 (9 + 0)	*10*

The problem is that Slate's expected net benefit in choosing exurban differs depending on whether or not Slate can bargain with the homeowners ex post. If Slate chooses exurban and there is no conflict, then Slate receives a net benefit of 12, regardless of whether or not bargaining is permitted, because the parties have no reason to bargain if there is no conflict. However, if Slate chooses exurban and there is a conflict, Slate receives a benefit of only 4 when there is no possibility of bargaining ex post but receives a benefit of 8 when there is a possibility of bargaining ex post. Slate's expected net benefit is thus 8 when bargaining is not permitted and 10 when bargaining is permitted. And because Slate's net benefit from choosing the rural site is 9, Slate prefers the socially desirable outcome, rural, when no bargaining is permitted (because the benefit from rural, 9, is greater than the expected benefit from exurban, 8) but prefers the socially undesirable outcome, exurban, when bargaining is permitted (because the benefit from rural, 9, is less than the expected benefit from exurban, 10).

The fact that Slate may take into account the possibility of a potential conflict, as well as the likelihood of subsequent bargaining, seems to support the modern approach to the classic problem of "coming to the nuisance."³⁸ Under the early common law approach, a party that came to a preexisting nuisance had no grounds for relief: "The early common law 'coming to the nuisance' rule . . . was that if a noxious trade were established in a place remote from habitations, those who afterward acquired property in the vicinity were barred from obtaining either damages or an injunction, having assumed

³⁸ On the coming-to-the-nuisance problem, see generally Donald Wittman, *Coming to the Nuisance*, in 1 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 292 (1998) [hereinafter Wittman, *Coming to the Nuisance*]; Donald Wittman, *First Come, First Served: An Economic Analysis of "Coming to the Nuisance"*, 9 J. LEGAL STUD. 557 (1980) [hereinafter, Wittman, *First Come, First Served*]; see also Rohan Pitchford & Christopher M. Snyder, *Coming to the Nuisance: An Economic Analysis from An Incomplete Contracts Perspective*, 19 J.L. ECON. & ORG. 491, 510-11 (2003) (noting that the "coming to the nuisance cases" usually involve "an inability of the parties to contract over the first mover's initial investment decision because the second mover is not yet present").

the risk of the nuisance by purchasing property with knowledge of the conditions.”³⁹ Most American courts have rejected this common-law approach and instead consider the fact that a party has come to a nuisance as only one factor among many in deciding whether or not to issue an injunction or award damages.⁴⁰ The Slate example suggests one reason why the modern rule may be the superior approach: Slate may have arrived in the exurban location before the homeowners, but, nevertheless, Slate may have strategically taken into account the possibility of future development in deciding where to locate his factory. Thus, Slate anticipated the possibility that parties might later come to his externality-generating activity and despite this fact (indeed, because of this fact) chose to locate his quarry in a location that, from a social perspective, is suboptimal.⁴¹

However, under the modern approach, it is also possible that *potential victims* may engage in a similar type of strategic behavior. Specifically, if potential victims anticipate that they may be able to enjoin the activities of a preexisting facility, these victims may purchase land that is being affected by the facility’s external effects to extract a payment from the facility’s owners. Consider the following factual situation described in Judge Cooley’s opinion in *Edwards v. Allouez Mining Co.*:

The year following the erection of defendant’s mill, complainant purchased a piece of land through which the creek runs a short distance below the mill, and upon which the mill as operated was depositing [stamp] sand. The land was not purchased for use or occupation, but as a matter of speculation, and apparently under an expectation of being able to force defendant to buy it at a large advance on the purchase price. It was offered to defendant soon after the purchase, and though no price was named, the valuation which has been put upon it by complainant and his witnesses is from three to five times what it cost him, and this perhaps

³⁹ *Mangini v. Aerojet-General Corp.*, 230 Cal. App. 3d 1125, 1139 (3d App. Dist. 1991) (quoting Note, *Torts: Nuisance: Defenses: “Coming to the Nuisance” as a Defense*, 41 CAL. L. REV. 148, 148 (1953)); see also Wittman, *Coming to the Nuisance*, *supra* note 38, at 292 (“For Blackstone, being first is everything: when the plaintiff comes to the nuisance, then the nuisance has the right to continue; when the nuisance comes to the plaintiff, then the plaintiff has the right.”).

⁴⁰ See, e.g., *Pre-Club, Inc. v. Elliot Inv. Corp.*, No. 17347, 1996 WL 122086, at *1 (Ohio App. 9 Dist. Mar. 20, 1996) (“Although some jurisdictions may apply the coming to the nuisance doctrine as a complete defense to a nuisance action, the prevailing American view is that this ‘defense’ is just one of several factors to be considered in determining whether a nuisance exists.”); see also *Patrick v. Sharon Steel Corp.*, 549 F. Supp. 1259, 1267-68 (N.D. W. Va. 1982) (“Jurisdictions as near to West Virginia as Kentucky and as distant as the United Kingdom have rejected the doctrine of coming to the nuisance as a defense.”).

⁴¹ Cf. Pitchford & Snyder, *supra* note 38, at 511 (“Allocating property rights to the first mover (i.e., following a coming to the nuisance rule) leads to overinvestment by the first mover. . . . [T]he first mover strategically overinvests to improve its position in subsequent bargaining with the second mover.”). A suboptimal locational choice is a concern in many situations, in addition to the coming-to-the-nuisance problem. See, e.g., Herbert Mohring & J. Hayden Boyd, “Externalities”: “Direct Interaction” vs. “Asset Utilization” Frameworks, 38 *ECONOMICA* 347, 354-55 (1971) (discussing locational consequences of conflicting water uses (citing A.A. WALTERS, *THE ECONOMICS OF ROAD USER CHARGES* 127 (1968) (discussing locational implications of highway investment decisions))).

gives some indication what his expectations were. . . . When defendant declined to purchase, this bill was filed. The prayer is that defendant be restrained from running or depositing its stamp sand on complainant's land, and from polluting the waters of the stream by its operations.⁴²

Ian Ayres and Kristin Madison point out that the situation in *Edwards* “represents a strategic ‘coming to the nuisance’ in order to extort a supercompensatory payment.”⁴³ More broadly, if the potential victims of any externality-generating activity have the legal right to enjoin the activity, these victims may be able to extract a payment in exchange for agreeing not to exercise their right to enjoin the party generating the externality.⁴⁴ Thus, Slate's calculating behavior might provide one plausible justification for the modern approach. But the possibility that potential victims might strategically come to a nuisance provides a countervailing justification in support of the common-law approach.

C. *Emitting Excessive Pollution*

Pollution is often characterized as the classic example of an externality.⁴⁵ A factory owner may operate a factory because she expects her revenues to exceed her expenses. However, operating the factory may entail the production of certain byproducts like sulfur dioxide that affects regional air quality or mercury that pollutes the local water supply. The owner may not have an incentive to take into account harm arising from such byproducts because third parties, not the owner herself, will bear these costs. However, if the social costs of operating the factory exceed the social benefits of operating the factory, then it would be desirable for the owner not to operate the factory. The traditional objective of regulation, as well as other legal mechanisms like the use of liability rules or corrective taxes, is to force the factory owner to internalize these external costs.⁴⁶ If the owner is forced to internalize such costs, then presumably the

⁴² 38 Mich. 46, at *1 (1878).

⁴³ Ian Ayres & Kristin Madison, *Threatening Inefficient Performance of Injunctions and Contracts*, 148 U. PA. L. REV. 45, 51 (1999) (citing EDWARD YORIO, *CONTRACT ENFORCEMENT: SPECIFIC PERFORMANCE AND INJUNCTIONS* 85 (1989) (“[T]he peculiar facts of *Edwards* dramatize how equitable remedies may be used to extort overcompensatory settlements.”)).

⁴⁴ Cf. Coase, *supra* note 2, at 42 (“[P]eople deciding to establish themselves in the vicinity of the factory will not take into account this fall in the value of production which results from their presence. This failure to take into account costs imposed on others is comparable to the action of a factory owner in not taking into account the harm resulting from his emission of smoke. Without the tax, there may be too much smoke and too few people in the vicinity of the factory; but with the tax there may be too little smoke and too many people in the vicinity of the factory.”).

⁴⁵ See, e.g., Chris Hilson, *Information Disclosure and The Regulation of Traded Product Risks*, 17 J. ENVTL. L. 305, 311 (2005) (“Pollution is a classic example of an externality”); see also Daniel C. Esty, *Toward Optimal Environmental Governance*, 74 N.Y.U. L. REV. 1495, 1497 n.5 (1999) (“The classic text characterizing environmental pollution as an uninternalized externality is William J. Baumol & Wallace E. Oates, *Economics, Environmental Policy, and the Quality of Life* 75-79 (1979).”).

⁴⁶ See SHAVELL, *supra* note 1, at 101 (“Regulation and the liability system are the preeminent tools that society employs to control externalities. . . . [C]orrective taxes are used rarely”).

owner's incentive in deciding whether or not to operate the factory will be consistent with the optimal social outcome.⁴⁷

In the 1970s, a handful of economists noticed that, theoretically, pollution externalities could arise for a different reason. Specifically, a firm might decide to operate a factory or increase the production level of its factory not because doing so would increase its profits but because, by imposing harm on potential victims, the firm might be able to extract payments in exchange for agreeing to close its factory or reduce its emissions. For example, in *The Postwar Literature on Externalities: An Interpretative Essay*, economist E.J. Mishan points out:

If institutional innovations over time cause transactions costs to decline . . . , there would be . . . a temptation for enterprising firms, and others in a position to do so, to produce unnecessary pollution in order to extract greater tribute from the public. . . . Access to the detailed knowledge necessary to challenge [such actions] is, if possible at all, likely to be costly and to lead to prolonged litigation.⁴⁸

The idea was that firms might become “pollution entrepreneurs” who would profit by emitting excessive amounts of pollution to extract payments from those bearing the costs of their emissions.⁴⁹

⁴⁷ See David E. Adelman & John H. Barton, *Environmental Regulation for Agriculture: Towards a Framework To Promote Sustainable Intensive Agriculture*, 21 STAN. ENVTL. L.J. 3, 22 n.114 (“By being charged for this harm, i.e., being forced to ‘internalize’ the externality costs, the actor has an incentive to take this external harm into account in an economically optimal way.” (citing ERHUN KULA, *ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT* 150-63 (1992); JOHN-MARK STENSVAAG, *MATERIALS ON ENVIRONMENTAL LAW* 60 (1999))).

⁴⁸ Mishan, *supra* note 20, at 24. In *The Economics of Congestion and Pollution: An Integrated View*, economist Jerome Rothenberg states the problem more generally:

[I]f external diseconomies against others can be expected to lead to bribes by victims to desist, then the production of negative externalities becomes a valid by-product of primary production. Profitability is enhanced whenever any firm can select from among its input and/or output alternatives those which cause substantial damage to third parties. Resource use will tend to become specialized toward much-augmented third-party interference. The new legal industry of selling protection against disturbance will be highly profitable.

Rothenberg, *supra* note 20, at 114.

⁴⁹ See Douglas H. Ginsburg & Paul Shechtman, *Blackmail: An Economic Analysis of the Law*, 141 U. PA. L. REV. 1849, 1863 n.46 (1993) (“A similar observation concerning ‘pollution entrepreneurs’ who might threaten to undertake production in order to be bribed to refrain appears in Donald C. Shoup, Comment, *Theoretical Efficiency in Pollution Control*, 9 W. ECON. J. 310, 310-11 (1971).”); see also Edward Rabin, *Nuisance Law: Rethinking Fundamental Assumptions*, 63 VA. L. REV. 1299, 1344 (1977) (exploring hypothetical in which the “traditional nuisance rule” actually “would encourage the polluter to produce smoke because the more smoke he produces the more likely he will be able to . . . extort excessive profits” (citing Restatement of Torts, 941, Comment c (1939))).

In the last three decades, the problem of “pollution entrepreneurs” has remained almost exclusively a concern of only theoretical interest. The primary reason we typically do not observe firms engaging in this type of opportunistic behavior is likely to be, as Mishan suggests, transaction costs. It would simply be too costly for a firm to collect payments from each individual who is bearing the external costs of its pollution. Even if a firm’s pollution was concentrated in a particular region, the costs to the firm of negotiating with each of the affected parties would quickly surpass the gains from the payments it might expect to extract. Moreover, the individuals affected by the pollution would each have an incentive not to make payments and free ride off of their neighbors. The existence of a possible free rider problem here is actually beneficial because it might help deter an opportunistic party from attempting to engage in a strategic spillover.

But, in recent years, the problem of “pollution entrepreneurs” has resurfaced, albeit in a slightly different form. Under various programs for reducing emissions, firms that produce greenhouse gases are now eligible to receive “carbon credits,” a type of subsidy, for offsetting their emissions.⁵⁰ For example, an automobile factory might sponsor the planting of a new forest, which functions as a “carbon sink,” and the government would award carbon credits to the factory for offsetting its emissions.⁵¹ Alternatively, the factory could install a new technology that reduces its discharge of various greenhouse gases, and the government might award carbon credits to the factory for offsetting its emissions in this way as well.⁵² The objective of such subsidies is to encourage firms to reduce their emissions and thereby reduce the harm they impose on others.

The difficulty is in distinguishing between those actions that represent actual reductions in greenhouse gases that would not have been undertaken but for the carbon credits and those actions that represent apparent reductions in greenhouse gases that would have been undertaken even in the absence of carbon credits. This problem suggests the need, as many environmental law scholars now recognize, for defining and

⁵⁰ Barton H. Thompson, Jr., *People or Prairie Chickens: The Uncertain Search for Optimal Biodiversity*, 51 STAN. L. REV. 1127, 1178 (1999) (“Proposals to help address global warming problems by providing ‘carbon offset credits’ for companies that emit carbon dioxide but pay for the preservation of mature forests or other carbon dioxide sinks is another example of the direct securitization of ecosystem services.” (citing Robert N. Stavins, *Policy Instruments for Climate Change: How Can National Governments Address a Global Problem?*, 1997 U. CHI. LEGAL F. 293, 303; Laura Tanglely with Doug Fine, *Rain Forests for Profits*, U.S. NEWS & WORLD REP., Apr. 20, 1998, at 40-41)).

⁵¹ See James L. Olmstead, *The Global Warming Crisis: An Analytical Framework to Regional Responses*, 23 J. ENVTL. L. & LITIG. 125, 162 (2008) (noting that “carbon offsets typically represent the purchase of carbon sequestration credits from avoided deforestation (e.g., from the implementation of a conservation easement on forested land that, but for the easement, would be slated for development), from tree planting (technically known as “afforestation”) or from an entity instituting forest management for carbon sequestration”).

⁵² See, e.g., Mark C. Trexler et al., *Developing Project-Level Emissions Reductions at the State Level*, 14 WIDENER L.J. 269, 275 (2008) (describing an offsets approach in which “a technology that is 20% more efficient than other projects installed over the last five years could qualify for crediting”).

implementing some form of a “principle of additionality.”⁵³ A principle of additionality would provide a mechanism for distinguishing between those projects that would not occur in the absence of the subsidy (i.e., that are “additional”), and thus that the government may have an interest in subsidizing, and those projects that would occur in the absence of the subsidy (i.e., that are not “additional”), and thus that the government probably has no interest in subsidizing.⁵⁴ Whether to subsidize various technological innovations that reduce greenhouse gas emissions is a particularly troublesome question because firms sometimes will have an independent economic incentive to utilize such innovations.⁵⁵ To date, there is no meaningful consensus on the appropriate definition of additionality or how the additionality principle should be implemented in practice.⁵⁶

Consequently, an opportunistic factory owner might engage in a strategic spillover. That is, in order to obtain a subsidy from the government, the firm might refrain from adopting a new technology even though the firm would have installed the technology in the absence of a subsidy. Suppose a firm is currently emitting, on an annual basis, 100 tons of a greenhouse gas such as carbon dioxide. The firm can reduce its emissions from 100 tons to 80 tons at a cost of \$20 by upgrading its technology. The technological upgrade would provide a benefit to the firm of \$25 in efficiency savings. The upgrade also provides society with a spillover benefit of \$15 because the upgrade

⁵³ See Carol M. Rose, *Big Roads, Big Rights: Varieties of Public Infrastructure and Their Impact on Environmental Resources*, 50 ARIZ. L. REV. 409, 438 (2008) (describing the “Kyoto insistence that forestry and other so-called clean development credits meet the criterion of ‘additionality’—that they be some measure in addition to what was going to happen anyway.” (citing Dennis D. Hirsch, *Trading in Ecosystem Services: Carbon Sinks and the Clean Development Mechanism*, 22 J. LAND USE & ENVTL. L. 623, 634 (2007))); Robert N. Stavins, *A Meaningful U.S. Cap-and-Trade System To Address Climate Change*, 32 HARV. ENVTL. L. REV. 293, 323 (2008) (pointing out that, “because of concerns about additionality and related perverse incentives, the role of project-based offsets should be defined carefully”).

⁵⁴ See Peter L. Gray & Geraldine E. Edens, *Carbon Accounting: A Practical Guide For Lawyers*, 22 WTR NAT. RESOURCES & ENV'T 41, 48-49 (2008) (“[S]ome carbon sequestration accounting standards require that an economic analysis be performed to determine if an economically rational owner of the project area would have undertaken the project without the project generating any carbon offsets credits. If the owner would have done so, then the project does not satisfy the additionality requirement.”); Olmsted, *supra* note 51, at 163 (“One way to prevent the expenditure of carbon offset funding for pre-existing or already funded projects is to require that any carbon offsets demonstrate ‘additionality.’ Requiring additionality means that any anti-global warming program for which funding from offsets are used would not have taken place but for the offsets program.”).

⁵⁵ See David M. Driesen, *Sustainable Development and Market Liberalism’s Shotgun Wedding: Emissions Trading Under the Kyoto Protocol*, 83 IND. L.J. 21, 57 n.208 (2008) (“Because many energy efficiency projects are economically attractive on their own, they have difficulty satisfying this [additionality] criterion.” (citing LEGAL ASPECTS OF IMPLEMENTING THE KYOTO PROTOCOL MECHANISMS: MAKING KYOTO WORK 193 (David Freestone & Charlotte Streck eds., 2005) (describing “improved energy efficiency technologies that would have become widely used” as an example of this problem))).

⁵⁶ See Trexler et al. *supra* note 52, at 272 (“The lack of a concrete definition of additionality has allowed for development of widely divergent interpretations of how additionality should be applied. Another important consideration is that the definition of additionality can be a ‘moving target’ over time. Countries may pass environmental regulations making a formerly discretionary technology or practice mandatory, in effect resetting the baseline for project activities and potentially making them ‘non-additional.’”).

reduces the firm's greenhouse gas emissions. The upgrade is thus desirable from a social perspective because the upgrade's social benefits, \$40 (i.e., \$25 + \$15), exceed its social costs, \$20. Normally, the firm would have a sufficient incentive to adopt the upgrade, even in the absence of a subsidy, because the private benefit of the upgrade, \$25, exceeds the private cost of the upgrade, \$20. However, if the firm believes it may be able to obtain carbon credits for reducing its emissions, say, a subsidy of \$15 for implementing the technology, the firm might delay installing the new technology and instead lobby the legislature for this subsidy.

To be sure, instead of subsidizing emissions reductions, the government could impose a corrective tax. The corrective tax approach requires each firm to internalize the harm being generated.⁵⁷ However, a corrective tax of a significant magnitude may not be a feasible option for resolving pollution externalities.⁵⁸ Given these constraints, the government may choose to rely on subsidies to encourage emissions reductions, an approach that increases the likelihood that the problem of "pollution entrepreneurs" will become a public policy problem, not just an academic exercise, in the coming years.

D. *Withholding Positive Externalities*

It is also worth noting that strategic spillovers may arise in situations involving *positive*, as well as *negative*, externalities. The classic problem with positive externalities, like the classic problem with negative externalities, is well known. Parties sometimes generate benefits as a byproduct of their use of property. But, if they are unable to internalize these incidental benefits, parties may forgo certain externality-generating activities that are socially desirable. For example, the owner of a business may refrain from planting trees or installing benches on the sidewalk in front of her shop because a portion of the benefits are enjoyed by other nearby business owners. The primary reason that these benefits, so-called positive externalities, can be socially problematic is straightforward: a party may not have an incentive to engage in an activity because the activity's private costs exceed its private benefits even though, as a result of the externality, the activity is desirable as its social benefits exceed its social costs.

Yet activities that entail positive externalities can be problematic for another reason as well: individuals and firms may purposely seek to withhold benefits that would be generated in their use of property, in order to extract payments from beneficiaries in exchange for undertaking an activity. Indeed, in certain situations, a party may refrain

⁵⁷ See, e.g., Louis Kaplow & Steven Shavell, *On the Superiority of Corrective Taxes to Quantity Regulation*, 4 AM. L. ECON. REV. 1, 2 (2002) (arguing that "the traditional notion of the superiority of corrective taxes should continue to be a benchmark for economists' thinking about the control of externalities").

⁵⁸ See, e.g., Barton H. Thompson, Jr., Forward, *The Search For Regulatory Alternatives*, 15 STAN. ENVTL. L.J. vii, xix (1996) (pointing out that, while direct incentives such as taxes may be "more dynamic than marketable permit systems," they are "politically less feasible"); cf. J.R. DeShazo & Jody Freeman, *Timing and Form of Federal Regulation: The Case of Climate Change*, 155 U. PA. L. REV. 1499, 1544-45 (2007) (arguing that "stronger industry consensus [will] emerge in favor of cap-and-trade").

from a socially desirable externality-generating activity even though the activity's private benefits exceed its private costs, i.e., even though, in the absence of the externality, the party would have had an incentive to engage in the activity. By refraining from the activity, the party anticipates the possibility of obtaining a payment, either from the government, in the form of a subsidy, or from other private parties, in exchange for engaging in the activity.

There are many historical examples in which it is difficult for the government to determine whether or not a party that is attempting to obtain a subsidy already has an independent economic incentive to engage in an activity with positive spillovers. For example, economic historians have long disagreed about whether federal loans and land grants to railroad companies in the nineteenth century were necessary to enable the construction of railroads to the Pacific Ocean.⁵⁹ Heywood Fleising concludes that "subsidies to the Central Pacific were 'excessive' at the margin, where 'excessive' describes subsidization that influenced neither the decision to invest in the railroad nor the speed of its construction."⁶⁰ Fleising asserts that "the rate of return excluding land grants was sufficient to have induced construction at a maximum rate of speed, implying that the entire land grant was an excessive subsidy—what a reasonable man might reasonably term a 'giveaway.'"⁶¹ If subsidies to the Central Pacific were in fact unnecessary, then the costs of lobbying for such subsidies, as well as the administrative costs of providing such subsidies, were a social waste.

Likewise, in certain situations involving the assembly of multiple parcels of land, "a private benefit may not be large enough to induce a private party to assemble property even though a positive externality makes the project socially desirable."⁶² In order to facilitate such assemblies, the government may need to provide a subsidy to the assembler or assemble the land using eminent domain.⁶³ However, because it is often less expensive for an assembler to convince a local government to exercise eminent domain on its behalf than to purchase the parcels itself, the assembler might claim the private benefit of an assembly is insufficient to induce assembly even though the assembler actually has a sufficient incentive to undertake the project. Indeed, "if a party's private incentive would already be substantial enough (i.e., if the private value of

⁵⁹ Compare ROBERT W. FOGEL, *THE UNION PACIFIC RAILROAD* (1969) and Lloyd J. Mercer, *Rates of Return for Land Grant Railroads: The Central Pacific System*, 30 J. ECON. HIST. 606 (1970) with Charles S. Morgan, *Problems in the Appraisal of the Railroad Land Grants*, in *THE PUBLIC LANDS* (Carstensen, V., ed., 1968) and Heywood Fleising, *The Central Pacific Railroad and the Railroad Grant Controversy*, 35 J. ECON. HIST. 552 (1975).

⁶⁰ Fleising, *supra* note 59, at 552-53.

⁶¹ *Id.* at 553.

⁶² Daniel B. Kelly, *The "Public Use" Requirement in Eminent Domain Law: A Rationale Based on Secret Purchases and Private Influence*, 92 CORNELL L. REV. 1, 42 (2006).

⁶³ See *id.* at 42-45.

assembly is greater than the value to existing owners), then the use of eminent domain would be unnecessary even if a significant externality exists.”⁶⁴

Recently, some developers also have received substantial tax deductions for agreeing not to build on certain parcels of land, even when the developers did not have any incentive to develop the parcels.

Pennsylvania developer Kenneth C. Hellings says he restricted building on ‘unusable’ portions of his new subdivision and took ‘a shocker’ of a tax deduction. . . . Using guidance from a local land trust, Hellings’s lawyers wrote an easement covering a dozen islands of protected land, one as small as six-tenths of an acre. Then they placed a second easement directly on 220 acres of the golf course, including the fairways, bunkers and putting greens. The easements were accepted by the Brandywine Conservancy, a well-established Pennsylvania land trust.⁶⁵

Similarly, in many towns that are seeking to increase the percentage of land devoted to open space, municipal governments are attempting to purchase undeveloped parcels of land or the development rights to such parcels.⁶⁶ Landowners, realizing the governments’ interest in acquiring these parcels, often announce construction plans, even though they do not intend to develop the parcels, to secure an elevated price from local officials.⁶⁷

Notice that, in this final example, the landowners’ action could be viewed as threatening to engage in an activity (i.e., developing certain parcels of land) with negative externalities (increasing congestion and destroying habitat) or, alternatively, refraining from an activity (i.e., not building on certain parcels of land) with positive externalities (decreasing congestion and preserving habitat). Thus, depending on the way in which the underlying activity is defined, opportunistic parties might attempt to extract a payment by engaging in an activity that could be characterized as either imposing a harm or as withholding a benefit. If “harm-imposing” actions and “benefit-withholding” actions are indistinguishable, strategic negative spillovers—opportunistically imposing harms on others—and strategic positive spillovers—opportunistically withholding benefits from others—may be functionally equivalent.⁶⁸

⁶⁴ *Id.* at 43.

⁶⁵ Joe Stephens and David B. Ottaway, *Developers Find Payoff in Preservation*, WASH. POST, Dec. 21, 2003 A1.

⁶⁶ See Amanda Siek, Comment, *Smart Cities: A Detailed Look at Land Use Planning Techniques that are Aimed at Promoting Both Energy and Environmental Conservation*, 7 ALB. L. ENVTL. OUTLOOK J. 45, 62 & n.99 (2002) (discussing the purchase of development rights as a “land use technique in which state or local authorities purchase a conservation easement on farmland or undeveloped open space”).

⁶⁷ *Cf. id.* at 62 n.99 (noting that “one drawback could be the expense required to employ a purchasing of development rights program”).

⁶⁸ Of course, various types of activities that also might be characterized as strategic spillovers arise in many other areas of the law as well. For example, in civil litigation, an unscrupulous plaintiff might file a

II. THE PROBLEM WITH STRATEGIC SPILLOVERS

Before examining a number of possible ways for mitigating the harm arising from strategic spillovers, it is necessary to identify the underlying problem with such spillovers more precisely. Clearly, permitting parties to engage in strategic spillovers would have a significant distributive effect. For example, by threatening to construct a spite structure, a strategic party may be able to extract a significant payment from potential victims. Likewise, by continuing to emit an excessive level of pollution, an opportunistic firm may be able to obtain a substantial subsidy from the government. As economists George Daly and J. Fred Giertz have noted, using externalities to extract payments from others may “result in profound changes in the distribution of income.”⁶⁹

Yet Daly and Giertz point out that attempts to use externalities to extract payments also may have an allocative effect as well. The reason for this effect, they assert, is the transaction costs that parties may incur in the course of bargaining to resolve

negative expected value suit solely for its nuisance value. See e.g., Lucian A. Bebchuk, *Suing Solely to Extract a Settlement Offer*, 17 J. LEGAL STUDIES 437 (1988); David Rosenberg & Steven Shavell, *A Model In Which Suits Are Brought for Their Nuisance Value*, 5 INT’L REV. OF LAW & ECON. 3 (1985). For this reason, one commentator has drawn an analogy between Rule 11 of the Federal Rules of Civil Procedure and the rules regarding spite fences: “What does [Rule 11] have in common with rules of nuisance-abatement that apply to spite fences? The rule is designed to deter vexatious and frivolous legal actions, including law suits, motions or other court proceedings that are brought for purposes other than to obtain the relief sought in the pleading, motion, or other demand for relief.” Joseph M. Perillo, *Abuse of Rights: A Pervasive Legal Concept*, 27 PAC. L.J. 37, 66 (1995)). Similarly, in the corporate context, a party may threaten to engage in a hostile takeover for purposes of “greenmailing” a company’s existing managers. In *Heckmann v. Ahmanson*, for example, a California appellate court noted how “[a] greenmailer creates the threat of a corporate takeover by purchasing a significant amount of the company’s stock [and] then sells the shares back to the company at a premium when its executives, in fear of their jobs, agree to buy him out.” 168 Cal. App. 3d 119, 214 Cal. Rptr. 177, 180 n.1 (1985). Likewise, in the world of intellectual property, a “cybersquatter” may seek to acquire the domain name of a website to extract a payment from a company that subsequently seeks to acquire the same name, see, e.g., *Intermatic, Inc., v. Toeppen*, 947 F. Supp. 1227 (N.D. Ill. 1996), or a “patent troll” may rely on an erroneously issued patent to extract a payment from a company that has independently discovered the same invention, see Doug Lichtman & Mark A. Lemley, *Rethinking Patent Law’s Presumption of Validity*, 60 STAN. L. REV. 45, 48 (2007) (explaining how “a large and growing number of ‘patent trolls’ today play this exact strategy, using patents on obvious inventions quite literally to tax legitimate business activity”). Finally, in the regulatory process, individuals often challenge various types of regulatory approvals not because they have an interest in preventing the grant of a license to a particular party but to extract a payment from the party in exchange for ceasing their opposition. See Donald L. Bell, *Unbundling: An Alternative to the Current System of Cable Television Franchising*, 21 CUMB. L. REV. 43, 69 n.127 (1990) (“Frequently, challenges to license renewals are mounted by persons who have no interest in broadcasting. The purpose of mounting a challenge is to obtain a payoff from the licensee in exchange for dropping the challenge.” (citing Fields, *Comparative Renewal Faceoff*, 36 TELEVISION/RADIO AGE, Feb. 20, 1989, at 39)).

⁶⁹ Daly & Giertz, *supra* note 2, at 1001; see also *id.* (concluding that, “[i]n a world of costless transacting, extortion . . . will not inhibit efficient resource allocation under either competitive or monopolistic circumstances; it may, however, result in profound changes in the distribution of income”).

these externalities.⁷⁰ If a strategic party and potential victims bargain over a payment to ensure the strategic party will not build a spite structure, the costs of bargaining are social costs that are incurred for no productive purpose.⁷¹ Similarly, if an opportunistic firm lobbies the legislature for a carbon subsidy and the government grants a subsidy to the firm, the costs of lobbying for the subsidy and of administering the subsidy are social costs that are incurred for no productive purpose. Thus, according to the conventional wisdom among economists, allowing parties to extract payments by engaging in externality-generating activities may have not only a distributive effect (because of the payments from potential victims to strategic parties) but also an allocative effect (because of the transaction costs that accompany bargaining for such payments).⁷²

However, the misallocation of resources that can occur as a result of strategic spillovers is not merely, or even primarily, a matter of needless transaction costs. The possibility of strategic spillovers creates three additional welfare effects, each of which is potentially more significant than the costs of bargaining. First, strategic parties may engage in socially wasteful actions to establish the credibility of threats to undertake activities involving spillovers. Second, strategic parties may engage in socially wasteful actions because, in certain situations, it is infeasible for them to bargain with potential victims *ex ante*. Third, potential victims, realizing that strategic parties may engage, or threaten to engage, in such externality-generating activities, may undertake various types of socially wasteful precautions. I discuss each of these problems in turn.

A. *Investments To Establish the Credibility of Threats*

The conclusion that transaction costs are the primary allocative problem with parties attempting to extract payments using externalities is premised on the simplifying (yet, ultimately, unrealistic) assumption that threatening to engage in an activity that entails a negative externality is equivalent to engaging, or preparing to engage, in the activity itself. Ronald Coase, for example, remarks: “Of course, it would not be necessary actually to plant the crops or increase the herd before agreeing not to do so. All that need be done would be to threaten to take such actions”⁷³ Likewise, Stewart Sterk notes that it may be unnecessary for a landowner to construct a spite fence because the “mere threat of building the fence is likely to induce his neighbor to pay money to be

⁷⁰ See *id.* 999-1000 (“While extortion redistributes wealth and is sometimes condemned on the basis of equity, there also seem to be important allocative reasons for its disfavor as well which relate to the costliness of the bargaining process.”).

⁷¹ See *id.* 1000 (“With any positive level of bargaining costs, extortion will clearly lead to a reduction of social welfare since scarce resources are utilized in the process of negotiation while failing to improve the allocation of resources.”).

⁷² See Daly & Giertz Reply, *supra* note 2, at 736 (“In a world of zero transactions cost, extortion would merely redistribute resources; in a world of costly transactions it would result in resources being used in the bargaining process with no allocative gains, that is, it would result in a movement to a point further from the production-possibility frontier.”).

⁷³ Coase, *supra* note 32, at 657.

free of the fence.”⁷⁴ However, in many circumstances, potential victims may be unwilling to pay strategic parties not to engage in externality-generating activities if strategic parties are merely issuing verbal threats that they intend to undertake such activities.

For example, it is unlikely that a Chicago resident would have transferred money to a stranger who, after announcing plans to operate a livery stable in the neighborhood, demanded a payment in exchange for agreeing not to operate the stable. In the absence of some credible evidence that the stranger intended to operate the stable, the landowner might have dismissed the threat as “cheap talk.”⁷⁵ A cheap talk threat is one that is costless to make and is thus typically considered to be not credible.⁷⁶

A strategic party might attempt to create a credible threat by incurring some costs. Incurring costs provides an informational signal to potential victims because it allows the threatener to distinguish himself from other parties for whom it would not be worthwhile to carry out the threat. For example, in commenting on Coase’s cattle-raisers, Harold Demsetz points out that “[t]he acquisition of a larger sum by the owner of ranchland generally will require him to incur some cost to make his threat credible, perhaps by actually beginning to increase herd size beyond normal levels.”⁷⁷ Similarly, to convince neighboring landowners the threat to open a livery stable was credible, the strategic party might have had to incur some costs such as the costs of ordering equipment for operating the stable or the costs of beginning the construction of the stable itself. At the very least, neighboring landowners would want to know whether the party actually had purchased the neighboring parcel. These steps antecedent to engaging in the externality-generating activity—purchasing land, ordering equipment, and beginning construction—entail costs that otherwise would not have been incurred and that, therefore, are socially wasteful.

Moreover, the strategic party may have to begin undertaking the externality-generating activity to demonstrate to potential victims that they will in fact suffer harm, or to show the extent to which they will suffer harm, as a result of the activity. An individual who wanted to engage in the livery stable scam in Chicago may have had to begin operating the stable because the neighbors may not have realized the extent of the harm until after they had experienced it; hearing about the possibility of horse manure has a potentially different effect than having to smell the manure itself. Furthermore, the strategic party may prefer to wait until the externality-generating activity is in progress before attempting to extract a payment. Attempting to bargain with victims after the externality is already occurring might arouse less suspicion that the spillover is strategic than demanding payments from potential victims before the externality is occurring.

⁷⁴ Sterk, *supra* note 27, at 84.

⁷⁵ For a relatively accessible introduction to cheap-talk games, see ROBERT GIBBONS, *GAME THEORY FOR APPLIED ECONOMISTS* 210-18 (1992).

⁷⁶ See Joseph Farrell & Matthew Rabin, *Cheap Talk*, 10 J. ECON. PERSPECTIVES 103 (1996).

⁷⁷ Harold Demsetz, *When Does the Rule of Liability Matter?*, 1 J. LEGAL STUD. 13, 23-24 (1972).

Thus, even if contracting between strategic parties and potential victims is possible ex ante, strategic parties often will make investments and expend resources to establish the credibility of their threats. Yet these investments and resources are costly. And such costs are socially wasteful because strategic parties would not have incurred these costs in the absence of the possibility of extracting payments.

B. *Decisions Made When Ex Ante Bargaining Is Infeasible*

Strategic spillovers are also problematic because it is sometimes infeasible for parties that are planning to engage in externality-generating activities to bargain ex ante with the potential victims of their activities. In certain circumstances involving strategic behavior, the primary concern is the possibility that ex post strategic behavior will cause parties to incur additional costs ex ante. In the contractual holdup literature, for example, the concern is that parties may attempt to renegotiate a contract as a result of a change in circumstances.⁷⁸ Because contracting parties anticipate the possibility of such renegotiations, they may initially invest effort to structure their contracts to minimize the likelihood of holdup, or they may forego the contractual relationship altogether.⁷⁹

But, at least for certain strategic spillovers, this possibility of negotiating ex ante is infeasible. As the hypothetical involving Mr. Slate's quarry illustrates, a firm that is deciding where to locate its facility may be incapable of bargaining with the future developer or future homeowners that will bear the external costs of its activities. At the time of the firm's decision, neither the developer nor the homeowners are known. The developer or homeowners may not decide whether to settle near the facility until several years after the firm has chosen a site for its facility. The firm may therefore build a facility in a socially undesirable location even though, if ex ante bargaining were feasible,

⁷⁸ On the problem of contractual holdup and renegotiation of contracts, see generally Steven Shavell, *Contractual Holdup and Legal Intervention*, 36 J. LEGAL STUD. 325, 326 (2007); Aaron S. Edlin and Benjamin E. Hermalin, *Contract Renegotiation and Options in Agency Problems*, 16 J.L. ECON. & ORG. 395 (2000); Aaron S. Edlin & Stefan Reichelstein, *Holdups, Standard Breach Remedies, and Optimal Investment*, 86 AM. ECON. REV. 478 (1996); Oliver Hart & John Moore, *Incomplete Contracts and Renegotiation*, 56 ECONOMETRICA 755 (1988); OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* (1985). Ian Ayres and Kristin Madison also discuss a "parallel problem" in which "parties threaten inefficient performance of contractual promises or other legal duties solely to gain bargaining power in a subsequent negotiation." Ayres & Madison, *supra* note 43, at 47.

⁷⁹ See Abraham L. Wickelgren, *The Limitations of Buyer-Option Contracts in Solving the Holdup Problem*, 23 J.L. ECON. & ORG. 127, 127 (2007) ("The extent to which this holdup problem exists has been the subject of many recent theoretical papers. Several articles have established conditions under which renegotiation will undermine the ability of any contract to create efficient incentives for ex ante investment" (citing Yeon-Koo Che & Donald B. Hausch, *Cooperative Investments and the Value of Contracting*, 89 AM. ECON. REV. 125 (1999); Oliver D. Hart & John Moore, *Foundations of Incomplete Contracting*, 66 REV. OF ECON. STUDIES 115 (1999); and Ilya Segal, *Complexity and Renegotiation: A Foundation for Incomplete Contracts*, 66 REV. OF ECON. STUDIES 57 (1999))); see also Hart & Moore, *supra* note 78, at 756 ("[T]he fact that revisions and/or renegotiation will occur will affect the form of the original contract. Less obvious, perhaps, is the fact that it will be in the interest of the parties to try to constrain in the original contract the final outcome of the revision/renegotiation process.").

it might have negotiated an agreement with potential victims. A social loss occurs, even if bargaining is possible ex post, because the firm already will have chosen a suboptimal location.⁸⁰ Thus, strategic spillovers also may result in a misallocation of resources in situations in which there is no opportunity for bargaining to occur before a party must decide whether to undertake an externality-generating activity.

C. Precautions To Avoid Harmful Effects

Strategic spillovers are problematic not only because opportunistic parties will undertake socially wasteful actions, either to establish the credibility of their threats or because ex ante bargaining is infeasible, but also because potential victims may undertake socially wasteful precautions. Knowing that opportunistic parties may engage in strategic spillovers, potential victims will have an incentive to lower their vulnerability to externality-generating activities. Steven Shavell describes how, in the general context of extortion or blackmail, “potential victims of threats will want to reduce their vulnerability to threateners” and can do so by “diminish[ing] the scale of the activities that expose them to risk” or “tak[ing] precautions to lower the likelihood of threats.”⁸¹ The actions taken by potential victims of extortion and blackmail are the same type of actions that potential victims of externality-generating activities might undertake to avoid the effects of strategic spillovers. But the precautions to avoid such spillovers, like the precautions to avoid extortion and blackmail in general, are problematic because “precautions taken by potential victims avoiding threats reduce social welfare.”⁸²

For example, in anticipating the livery stable scam, a potential purchaser of real estate in Chicago may have decided not to buy a property adjacent to an empty parcel. The purchaser might have feared that a strategic party could later buy the empty parcel and threaten to operate a livery stable there. The decision to forgo purchasing a particular property for this reason is undesirable: the buyer is choosing to purchase an alternative parcel that entails less consumer surplus solely because of the possibility of strategic behavior. Alternatively, existing owners, such as the affluent residents in San Francisco, might decide to buy an empty parcel preemptively. The owners might buy the parcel to eliminate the risk that a strategic party will later buy the parcel and threaten to engage in a nuisance-like activity like a brewery or bordello. The decision to purchase the empty parcel is also undesirable: the buyer is choosing to purchase an additional parcel merely as a defensive measure against the possibility of strategic behavior.

⁸⁰ See *supra* Part I.B.

⁸¹ Steven Shavell, *An Economic Analysis of Threats and Their Illegality: Blackmail, Extortion, and Robbery*, 141 U. PA. L. REV. 1877, 1879-80 (1993). For several additional economically-oriented analyses of extortion and blackmail in the legal literature, see Mitchell N. Berman, *supra* note 29; Henry E. Smith, *The Harm in Blackmail*, 92 NW. U. L. REV. 861 (1998); Ginsburg & Shechtman, *supra* note 28; Richard A. Posner, *Blackmail, Privacy, and Freedom of Contract*, 141 U. PA. L. REV. 1817 (1993); Coase, *supra* note 32; James Lindgren, *Unraveling the Paradox of Blackmail*, 84 COLUM. L. REV. 670 (1984); Richard A. Epstein, *Blackmail, Inc.*, 50 U. CHI. L. REV. 553 (1983).

⁸² Shavell, *supra* note 81, at 1894.

Moreover, if potential victims had some way to insure against strategic spillovers, they would likely avail themselves of the opportunity. Lawrence Blume and Daniel L. Rubinfeld point out that “[i]ndividuals would presumably be willing to pay something to insure against the prospect of a factory moving nearby and imposing substantial externalities.”⁸³ Parties would likely be willing to pay to insure against the possibility of an externality regardless of whether the harm arises as an unintended byproduct of an externality-generating activity or purposely as the result of strategic behavior. Overall, the precautions that are undertaken by potential victims, like the activities that are undertaken by strategic parties, are socially undesirable because they would not have been undertaken in the absence of the possibility of extracting a payment by means of a strategic spillover.

III. INTERNALIZING STRATEGIC SPILLOVERS

There are several reasons why, irrespective of the applicable legal rule or even in the absence of any legal rule, opportunistic parties may decide *not* to engage in strategic spillovers. First, transaction costs might deter individuals and firms from attempting to profit from activities they otherwise would not have undertaken. Until recently, the concern about “pollution entrepreneurs” was, as noted above, primarily of theoretical interest; the transaction costs of collecting payments from a large number of victims, some of whom may have been unaware of the harm being imposed, was most likely prohibitive.⁸⁴ Second, individuals and firms may refrain from strategic spillovers if they are concerned that engaging in such actions would be detrimental to their reputations. For example, a landowner may decide not to attempt to extract payments by building a spite structure if she knows she is in a repeat game with her neighbor. Third, and perhaps most importantly, basic social norms of reciprocity and decency usually discourage this type of opportunistic behavior.

However, these non-legal limitations on strategic spillovers—transaction costs, reputation effects, and social norms—are sometimes inadequate for deterring opportunistic behavior. Furthermore, with the arrival of technological advances such as the internet, these non-legal limitations may be weakening, at least to a degree.⁸⁵ To the

⁸³ Lawrence Blume & Daniel L. Rubinfeld, *Compensation for Takings: An Economic Analysis*, 72 CAL. L. REV. 569, 592 (1984).

⁸⁴ See *supra* notes 48-49 and accompanying text.

⁸⁵ Take the bizarre case of Toby the Bunny, the subject of a recent comment, see Stephen E. Sachs, Comment, *Saving Toby: Extortion, Blackmail, and the Right to Destroy*, 24 YALE L. & POL’Y REV. 251 (2006), in which an individual on the internet attempted to extort money from others by threatening to kill Toby unless payments were made to his account. Essentially, the individual was attempting to extract payments simply for engaging in an activity that would have negative effects on others who would suffer mental anguish and emotional distress from seeing the bunny killed even though, in the absence of such payments, this individual presumably would not have had any reason to target the bunny. This strategic spillover was likely possible only because the internet had lowered the costs of transmitting the threat, finding an audience that might be willing to pay, and collecting payments from those who were willing to

extent that transaction costs are decreasing, reputation effects are becoming less important, and social norms are becoming more attenuated, there is likely to be a higher number of strategic spillovers in the future. Correspondingly, the costs to society of continuing to ignore these spillovers is likely to increase as well. But, unfortunately, many of the usual mechanisms for resolving conventional externalities are relatively ineffective for addressing strategic spillovers.

A. *The Futility of Bargaining*

Bargaining is often considered an effective way for resolving externalities. Coase, for example, emphasizes “the possibility that externality problems would be cured by bargaining, and the consequent irrelevance of the law to substantive outcomes, when parties can bargain with little cost.”⁸⁶ However, Coasean bargaining is relatively ineffective for controlling strategic spillovers. Relying on such bargaining is problematic because it allows the strategic party to engage in the very activity, namely, bargaining, that is necessary to extract payments from potential victims.

To see why bargaining is suboptimal, consider again the livery stable scam. Owner Z is an opportunistic individual who is considering operating a livery stable in order to extract payments from the owners of neighboring parcels. If Owner Z decided to operate a stable, he would obtain a private benefit of 6 and have a private cost of 8. In addition, operating a livery stable involves an external cost of 4 on the stable’s neighbors. Thus, by operating a livery stable, Owner Z creates a social loss of 6 (i.e., $-2 - 4$). It is therefore better for Owner Z not to operate a livery stable.

Under the conventional wisdom regarding externalities, Owner Z would not in fact have an incentive to operate a stable. Owner Z’s private benefits (6) are less than his private costs (8). The problem is that, when the possibility of opportunistic behavior is considered, Owner Z may have an incentive to operate a stable in order to impose harm (4) on his neighbors. By doing so, Owner Z is then able to bargain for a payment (4) from his neighbors in exchange for agreeing to cease operating his stable. Assuming transaction costs are 0, Owner Z will decide to operate the stable—the socially undesirable outcome—because his private benefits of 10 ($6 + 4$) outweigh his private costs of 8.

Instead of actually operating a livery stable, Owner Z could just announce a threat to operate the stable. But without incurring any costs to make the threat credible, such a

pay. Moreover, by allowing these types of threats to be made anonymously to strangers, the internet also may diminish the effectiveness of reputation costs and social norms in deterring strategic spillovers.

⁸⁶ SHAVELL, *supra* note 1, at 109 (citing Coase, *supra* note 1). As Shavell points out, Pigou also recognizes that, at least in certain circumstances, bargaining is beneficial for solving externality problems. *See id.* at 109 n.46 (“Although Pigou is criticized by Coase for viewing government intervention as necessary to solve the externality problems, Pigou himself emphasizes the possibility that externalities will be resolved through bargaining when parties are in a contractual relationship.”).

threat is merely cheap talk.⁸⁷ The neighbors being threatened would not pay Owner Z unless Z incurred some cost to make his threat credible. Suppose, for example, that Owner Z could purchase the equipment necessary to make his threat credible at a cost of 1. Under these circumstances, Owner Z would incur this cost because the benefit of extracting a payment through a credible threat, 4, is greater than the cost of making the threat credible, 1. However, this result is, once again, socially undesirable because Owner Z's investment in this equipment, -1, is a deadweight loss. Owner Z would not have purchased the equipment if not for the possibility of extracting a payment. Thus, regardless of whether the strategic party engages in the externality-generating activity or merely threatens to do so, relying solely on bargaining to resolve strategic spillovers leads to an undesirable outcome

B. *The Overinclusiveness of Regulation*

Now suppose that, in addition to Owner Z, there are three other individuals in Chicago, Owners A, B, and C, each of whom was considering opening a livery stable. Unlike Owner Z, Owners A, B, and C have served as apprentices at other livery stables and were true equine experts. If Owners A, B, and C each decided to operate a stable, each owner would obtain a private benefit of 12 at a private cost of 8. Once again, if Owner Z decided to operate a stable, he would obtain a private benefit of 6 and have a private cost of 8. In addition, operating a livery stable involves an external cost of 3 on the stable's neighbors. Thus, by operating a livery stable, Owners A, B, and C each create a social benefit of 1 (i.e., $4 - 3$) and Owner Z creates a social loss of 5 (i.e., $-2 - 3$). The socially desirable is for Owners A, B, and C to operate a livery stable and Owner Z not to operate a livery stable. See Table 4.

Table 4 The "Livery Stable Scam"				
<u>Owner</u>	<u>Private Benefit</u>	<u>Private Cost</u>	<u>External Cost</u>	<u>Social Welfare</u>
Owner A	12	8	3	1
Owner B	12	8	3	1
Owner C	12	8	3	1
Owner Z	6	8	3	-5

Under the conventional wisdom regarding externalities, only Owners A, B, and C would choose to operate a stable because only these three owners have a private benefit (12) that exceeds their private costs (8). Owner Z would not have an incentive to operate a stable because his private benefits (6) are less than his private costs (8). If owners A, B,

⁸⁷ See *supra* 75-76 & accompanying text.

and C each operate a livery stable, social welfare is 3 ($1 + 1 + 1$). This is the socially desirable outcome.

As discussed above, relying exclusively on bargaining to resolve strategic spillovers leads to an undesirable outcome.⁸⁸ Opportunistic parties like Owner Z actually hope to bargain with potential victims to extract payments in exchange for agreeing to cease their externality-generating activities. Thus, in the absence of any regulation, Owner Z, as well as Owners A, B, and C, has an incentive to operate a stable, and social welfare will be -2 ($1 + 1 + 1 - 5$), a socially undesirable outcome.

But what if the city enacted a regulation prohibiting livery stables in all residential areas? Enacting this regulation would result in a higher level of social welfare than relying exclusively on bargaining, but the outcome would not be socially optimal. If Owners A, B, C, and Z were each prohibited from operating a livery stable, then social welfare would be 0 because, with no economic activity, there would not be any costs or any benefits. Here, regulation is better than simply permitting the activity and allowing bargaining to resolve harmful effects because 0 is greater than -2.

However, regulation is worse than the socially desirable outcome because 0 is less than 3. The prohibition on livery stables in residential areas prevents the opportunistic party, Owner Z, from engaging in a strategic spillover. But, the prohibition also prevents the non-opportunistic parties, Owners A, B, and C, from engaging in activities that, although having harmful effects, are socially desirable. Thus, unless there is a way to distinguish strategic spillovers from other externality-generating activities, regulatory prohibitions will deter desirable, as well as undesirable, activities.⁸⁹ If policymakers are unable to target opportunistic behavior, then regulatory prohibitions will be suboptimal.

C. *Liability Rules as a Potential Panacea*

Liability rules seem to offer a potentially promising solution for addressing strategic spillovers. Ideally, liability rules would force each party that is engaging in an externality-generating activity to internalize the external costs of its activities. If strategic parties were forced to internalize the costs of their externalities, these parties would have no incentive to engage in strategic spillovers because, rather than being able to extract payments from potential victims, they would have to compensate victims for the harm being imposed.

Moreover, unlike regulatory prohibitions, liability rules would not deter the externality-generating activities that are in fact socially desirable. On one hand, if the private benefits of engaging in an activity still exceeded the private costs of engaging in

⁸⁸ See *supra* Part III.A.

⁸⁹ See Demsetz, *supra* note 77, at 25 (“Because it is difficult to sort desirable from undesirable increases in herd or crop size, there is a real danger of penalizing desirable increases in herd or crop size by mistake if such wealth transfers are treated as extortion.”); cf. Mohring & Boyd, *supra* note 41, at 349 (discussing how “under the bribery approach [for resolving congestion externalities], it could prove troublesome to separate genuine potential drivers from those who pretend to be such merely to obtain bribes”).

the activity (including the liability costs), a non-opportunistic party would continue to engage in the activity. On the other hand, if the private benefits of engaging in an activity did not exceed the private costs of engaging the activity (including the liability costs), a non-opportunistic party would cease the activity. Thus, if forced to internalize their external costs, all private parties, both strategic parties and non-strategic parties, would have an incentive to act in a manner that is socially desirable.

To see why an approach based on liability rules would lead to the optimal result, consider once again the livery stable example. With liability rules, Owners A, B, C, and Z would each be required to compensate their neighbors for the harm (3) if they operated a livery stable. Under these conditions, Owners A, B, and C would continue to operate their stables, even after being forced to internalize their external costs, because their private benefits, 12, would still be greater than their private costs including liability costs, 11 (i.e., $8 + 3$). Owner Z, instead of being able to extract a payment of 3 from his neighbors, would be required to pay 3 to his neighbors to compensate them for the harm. If Owner Z is unable to extract payments by imposing external costs, Owner Z's private benefits, 6, would be less than either his private costs, 8, or his private costs including liability costs, 11 (i.e., $8 + 3$). As a result, Owner Z would not have any incentive to operate the stable. Thus, under the liability rule approach, social welfare is 3, the socially desirable outcome, because Owners A, B, and C would each operate a stable and Owner Z would not operate a stable.

The reason why liability rules are not a panacea for solving strategic spillovers, as the example above seems to suggest, is litigation costs. The problem is that liability rules entail litigation costs for imposing liability on all parties not only parties engaging in strategic spillovers but also parties engaging in non-opportunistic spillovers. In the example above, if litigation costs are assumed to be 0, then liability rules would result in the socially desirable outcome. But if litigation costs are assumed to be 1, then liability rules do not result in the desirable outcome. Litigating each case that involves a livery stable owner imposing harm on others would increase social costs by 4 ($1 + 1 + 1 + 1$). Social welfare is thus equal to 3, the benefits of permitting Owners A, B, and C to operate a stable and deterring Owner Z from operating a stable, minus 4, the litigation costs of imposing liability on each owner, for a total of -1. Here, the inclusion of litigation costs means that liability rules actually will lead to less welfare, -1, than just prohibiting livery stables in residential areas entirely, 0.⁹⁰ Overall, whether liability rules are superior to regulation depends on whether the opportunity costs of deterring externality-generating activities that may be desirable exceed the administrative costs of determining liability for each externality-generating activity.⁹¹

⁹⁰ See *supra* Part III.B.

⁹¹ Interestingly, this analysis is seemingly consistent with the development of the law with respect to livery stables. Initially, when litigation costs were relatively low, a determination of whether any particular stable was a nuisance was made on a case-by-case basis. See, e.g., *Flint v. Russell*, 9 F. Cas. 286, 288 (E.D. Mo. 1879) ("a livery stable in a town or city is not per se—that is, necessarily and unavoidably—a nuisance"). Ultimately, when the number of stables and other conflicting uses began to increase, cities began to separate conflicting uses by simply prohibiting these activities in residential areas, even though

Of course, actual litigation costs might be lower because liability would deter certain parties from engaging in these activities. Knowing they would be liable ex post, strategic parties would not have an incentive to engage in strategic spillovers. In theory, therefore, there would be no litigation involving strategic parties. However, because other parties would continue to engage in these externality-generating activities and because imposing liability on these parties would still be necessary to distinguish between opportunistic and non-opportunistic behavior, litigation costs might still be significant. For example, in the livery stable example, liability rules might deter Owner Z from acting opportunistically, resulting in no litigation between Z and Z's potential victims, but owners A, B, and C would each still operate a livery stable and, under the liability rule approach, the victims of their spillovers would still litigate to recover damages for the harm imposed. Thus, litigation costs would be 3 ($1 + 1 + 1$) and a liability regime with litigation costs would lead to the same welfare, 0, as prohibiting livery stables in residential areas.

The legal system could attempt to distinguish between strategic livery stable owners and non-opportunistic livery stable owners and impose liability only on the strategic owners. However, attempting to separate the strategic owners from the non-opportunistic owners raises the same informational problem that arises in the absence of liability rules. Thus, unless the strategic behavior is easily observable, the liability rule approach is useful only if the overall costs of imposing liability on all externality-generating activities are relatively low.

D. *Non-Enforcement as a Possible Solution*

In the absence of any other relief, potential victims may be willing to pay strategic parties to cease their externality-generating activities. Specifically, if the costs of paying to cease an externality are less than the costs of continuing to bear the externality, then a victim would be willing to pay the strategic party to cease its activity. However, before making such a payment, the victim usually will demand some type of assurance that the strategic party, upon receiving this payment, will cease its activity. Ideally, the victim will want a legally enforceable assurance such as a contractual agreement.

But what if courts refused to enforce contracts between strategic parties and potential victims? The immediate consequence is that potential victims would not be entitled to expectation damages if they entered into an agreement with a strategic party and the strategic party continued to engage in the activity. However, if potential victims know they will not be entitled to these damages if a strategic party continues its activity, it will be difficult for a strategic party to make an enforceable promise to cease the activity. Anticipating that the strategic party will not cease its activity, potential victims might refuse to pay the strategic party. And, if the strategic party knows that potential victims will be unwilling to pay to cease the externality-generating activity, the strategic party might not have any incentive to engage in the activity in the first place.

certain instances of these activities were socially desirable. See, e.g., *Sheldon v. Weeks*, 51 Ill. App. 314, 315 (1893) (noting that “[m]any private stables are kept in the best residence neighborhoods”).

To illustrate, consider the “livery stable scam” as a sequential game. In Period 1, the strategic party (SP) decides whether or not to issue a threat to neighboring residents: “I plan to open a livery stable in your neighborhood unless you pay me X amount of money.” In Period 2, if the SP has issued the threat, the potential victims (Vs) must decide whether or not to enter into a contract with SP in which they agree to pay SP the particular sum of money demanded in exchange for SP agreeing not to undertake the externality-generating activity. After SP and the Vs have had an opportunity to enter into a contractual agreement in Period 2, SP decides in Period 3 whether or not to engage in the externality-generating activity.

For purposes of this example, I make the following assumptions. I assume that SP only issues credible threats and that costless threats are not credible; consequently, each threat in Period 1 has a positive cost of \$2. This cost might be the cost of taking some step antecedent to operating the livery stable such as purchasing equipment that is necessary for stable operations. When SP issues a threat, SP demands that the Vs pay SP \$4 in exchange for SP agreeing not to operate the stable. If SP decides to engage in stable operations in Period 3, SP gains \$3 and loses \$2, although SP’s total costs from operating the stable, \$4, exceed its total benefits from operating the stable, \$3, because SP will have already incurred \$2 as a result of purchasing the stable equipment in Period 1. By operating the stable, SP imposes external costs of \$6 on the Vs. If a contract between SP and the Vs is enforceable, the Vs obtain expectation damages (\$2) if SP breaches the contract, i.e., if SP operates the stable even though it has contractually agreed not to operate the stable.

These assumptions lead to five possible payoffs depending on (i) what SP chooses to do in Period 1, (ii) what the Vs choose to do in Period 2, and (iii) what SP chooses to do in Period 3. If SP makes a threat, the Vs agree to pay SP, and SP nevertheless engages in stable operations, SP receives a benefit of \$1 and the Vs bear a loss of \$8.⁹² If SP makes a threat, the Vs agree to pay, and SP refrains from stable operations, SP receives a benefit of \$2 and the Vs bear a loss of \$4.⁹³ If SP makes a threat, the Vs refuse to pay, and SP engages in stable operations, SP bears a loss of \$1 and the Vs bear a loss of \$6.⁹⁴ If SP makes a threat, the Vs refuse to pay, and SP does not engage in stable operations, SP bears a loss of \$2 and the Vs receive \$0.⁹⁵ If SP does not make a threat, the Vs will

⁹² SP incurs a cost of \$2 to make the threat, receives a payment of \$4 from the Vs, obtains a benefit of \$1 from engaging in the activity, and then must pay \$2 in damages, so $-2 + 4 + 1 - 2 = \$1$. The Vs pay \$4 to SP, bear \$6 in external costs, and then receive \$2 in damages, so $-4 + -6 + 2 = \$-8$.

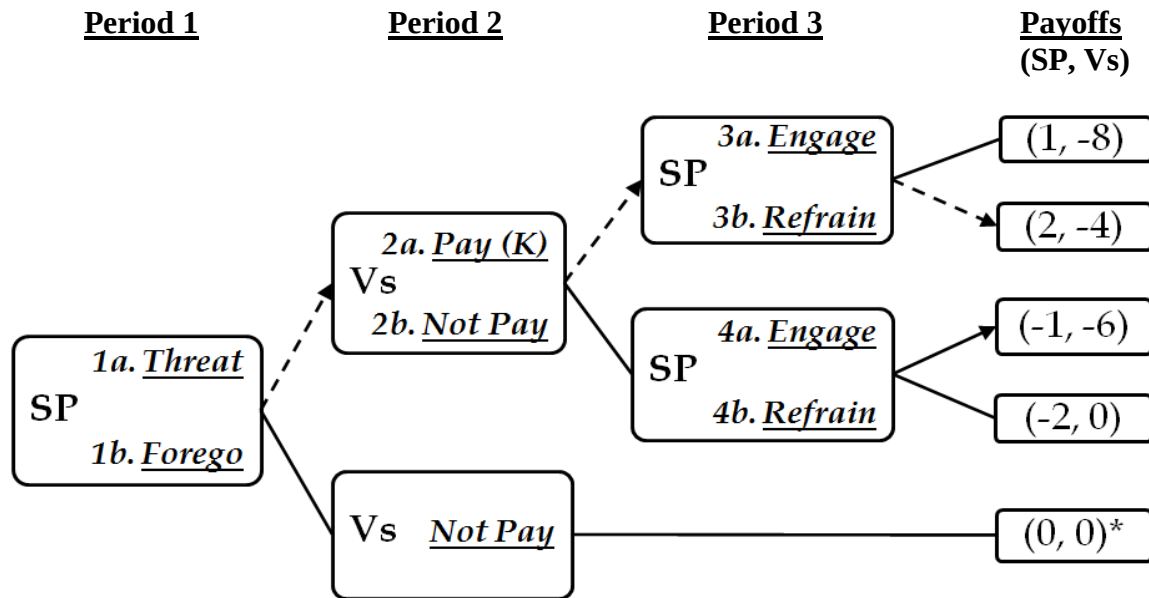
⁹³ SP incurs a cost of \$2 to make the threat and receives a payment of \$4 from the Vs, so $-2 + 4 = \$2$. The Vs pay \$4 to SP.

⁹⁴ SP incurs a costs of \$2 to make the threat and then obtains a benefit of \$1 from engaging in the activity, so $-2 + 1 = \$-1$. The Vs bear \$6 in external costs.

⁹⁵ SP incurs a cost of \$2 to make the threat. The Vs do not pay and do not bear any external costs, so their total is \$0.

not pay, and both SP and the Vs receive \$0—the socially desirable outcome.⁹⁶ See Figure 2.

Figure 2
Enforcement of Strategic Ks



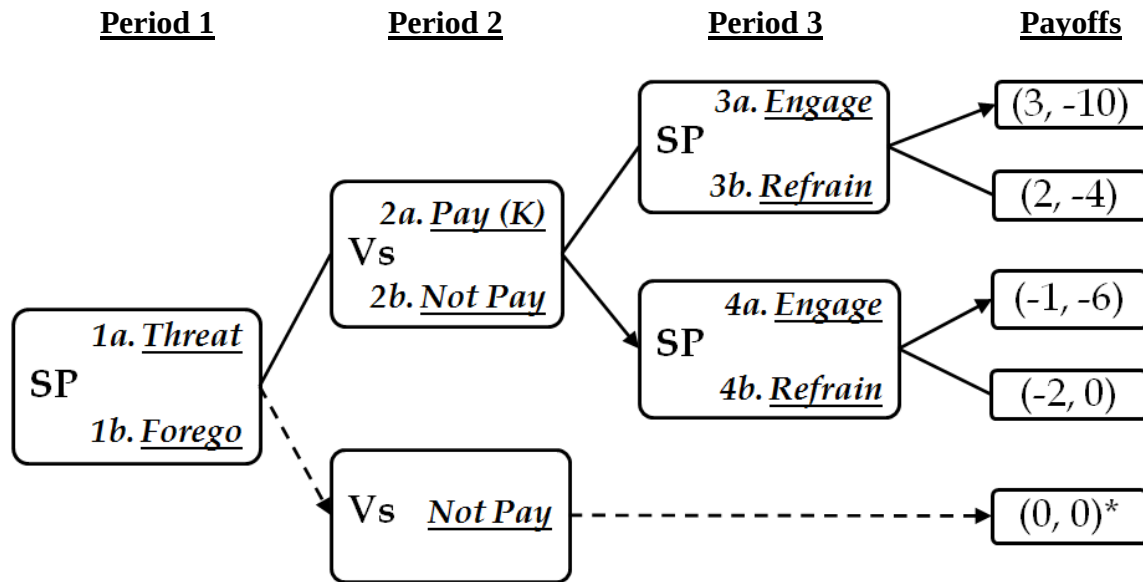
The equilibrium outcome, illustrated in Figure 2 by the dotted lines with arrows, is that SP makes a threat in Period 1, the Vs pay SP in Period 2, and SP refrains from operating the stable in Period 3. This outcome is derived using backward induction. In Period 3, SP will refrain (option 3b) if SP has made a threat and the Vs have agreed to pay because the benefit of refraining, \$2, is greater than the benefit of engaging, \$1. If SP has made a threat and the Vs have refused to pay, SP will engage (option 4a) because the benefit of engaging, \$-1, is greater than the benefit of refraining, \$-2. In Period 2, the Vs, knowing SP will refrain if they pay and will engage if they do not pay, will agree to pay (option 2a) because the benefit of paying and having SP refrain, \$-4, is greater than the benefit of not paying and having SP engage, \$-6. In Period 1, SP, knowing the Vs will pay if it threatens and will not pay if it forgoes the threat, will issue a threat (option 1a) because \$2 is greater than \$0. Overall, the equilibrium outcome here (2, -4), which entails a social loss of \$2, is suboptimal because it is less than the socially desirable outcome (0, 0), which entails a social loss of \$0.

If the courts refused to enforce contracts between SP and the Vs, all of the payoffs would remain the same except for the payoff in which SP makes a threat (option 1a), the Vs pay SP (option 2a), and SP engages in stable operations (option 3a). Instead of obtaining a benefit of \$1, SP would now obtain a benefit of \$3 because SP would no

⁹⁶ The socially desirable outcome is \$0 because \$0 is equivalent to the status quo ante, i.e., SP does not attempt to engage in a strategic spillover. The payoff (0,0) yields an outcome of \$0, which is greater than (1,-8) = \$-7; (2,-4) = \$-2; (-1,-6) = \$-7; and (-2, 0) = \$-2.

longer have to pay expectation damages of \$2 for continuing to engage in the activity in violation of its agreement with the Vs; no damages are available for the breach of a contract the court is unwilling to enforce.⁹⁷ Conversely, instead of bearing a loss of \$8, the Vs would now bear a loss of \$10. The Vs no longer obtain expectation damages of \$2 if SP continues to engage in the activity in violation of its agreement with the Vs; once again, a court will refuse to enforce such a contract.⁹⁸ Thus, at first glance, the court's unwillingness to enforce contracts between SP and the Vs appears to help SP and hurt the Vs. See Figure 3.

Figure 3
Non-Enforcement of Strategic Ks



Yet this seemingly small change in a single payoff box actually makes a significant difference in the outcome of the game. In Period 3, SP will now decide to engage in stable operations (options 3a and 4a) because the payoff from engaging in the operations is higher than the payoff from refraining, regardless of whether the Vs pay SP in Period 2 (\$3 > \$2) or do not pay SP in Period 2 (\$-1 > \$-2). In Period 2, the Vs, knowing SP will operate the stable regardless of whether there is a contract, no longer have any incentive to pay SP (option 2a) because their payoff when they pay, \$-10, is less than their payoff when they do not pay, \$-6. In Period 1, SP, realizing the Vs will not pay, regardless of whether or not it makes a threat, will decide not to make a threat (option 1b) because the payoff of not making a threat, \$0, is higher than the payoff of making a threat, \$-1. SP's incentive not to make a threat, i.e., not to engage in a strategic spillover, is thus aligned with the optimal social outcome (0, 0).

⁹⁷ SP incurs a cost of \$2 to make the threat, receives a payment of \$4 from the Vs, and obtains a benefit of \$1 from engaging in the activity, so $-2 + 4 + 1 = \$3$.

⁹⁸ The Vs pay \$4 to SP and bear \$6 in external costs, so $-4 + -6 = \$-10$.

This example suggests that, by refusing to enforce contracts between strategic parties and potential victims, courts might be able to deter certain types of strategic spillovers. The possibility of non-enforcement, when strategic behavior is observable and verifiable, eliminates the incentive for individuals and firms to impose externalities opportunistically. As a result, a court might refuse to enforce a contract between (i) a property owner who threatened to build a structure that interfered with a neighbor's view or the neighbor's access to light or air and (ii) the owner's neighbor who would bear the costs of such an interference if the neighbor could show that, in the absence of the possibility of extracting a payment, the owner would not have constructed the structure. By contrast, when this type of strategic behavior is either not observable or not verifiable, courts should continue to enforce otherwise valid contracts. In these circumstances, it is generally too difficult to detect opportunism and, at the very least, enforcing otherwise valid contracts permits parties to resolve conventional externalities through bargaining. Consequently, a court should enforce a contract between a factory owner who decides to locate his facility in an exurban area and the subsequent developer or subsequent homeowners who are harmed by the factory's external effects.

But the difficult cases are, of course, those in which the determination of whether or not a particular behavior is strategic is ambiguous. Whether or not courts should enforce contracts in these cases depends on (i) the expected benefits of deterring opportunistic parties from engaging in strategic spillovers, (ii) the opportunity costs of mistakenly deterring self-interested behavior that may be socially desirable, and (iii) the administrative costs of distinguishing between conventional externalities and strategic spillovers. All other things being equal, if the opportunity costs of misidentifying desirable behavior as strategic are relatively low, courts may wish to refrain from enforcing contracts for resolving spillovers. In these circumstances, the possibility that the spillover is strategic might outweigh the risk of deterring a desirable activity. By contrast, if the opportunity costs of misidentifying desirable behavior as strategic are relatively high, courts may wish to enforce such contracts. In these circumstances, the risk of deterring self-interested activities that entail externalities, but that are also socially desirable, might outweigh the possibility that the spillover is strategic.

Finally, it is worth noting that, even if a strategic party and potential victims were able to resolve a particular strategic spillover contractually (and even if the courts were to enforce this type of contractual agreement), it may not be feasible for a standard contract to prevent *subsequent* strategic spillovers. For example, the same strategic party may attempt to extract payments from other potential victims: livery stable owner *A* who obtains a payment from neighborhood *A* may decide to move to neighborhood *B* and extract a similar payment from neighborhood *B*. Alternatively, a different strategic party may attempt to extract payments from the same potential victims: livery stable owner *B*, learning of the payment from neighborhood *A* to livery stable owner *A*, may decide to move to neighborhood *A* and extract a similar payment from neighborhood *A*.⁹⁹ The same strategic party might even attempt to extract payments from the same victims:

⁹⁹ Cf. Holderness, *supra* note 17, at 185-88 (describing how bargaining is "futile" in circumstances in which there is an open class because assignment of liability will encourage entry into the open class).

livery stable owner A, having obtained one payment from neighborhood A, may hire an undisclosed agent and extract another payment from neighborhood A.¹⁰⁰

CONCLUSION

The problem of strategic spillovers involves situations in which individuals or firms purposely seek to generate harm in their use of property, in order to extract payments from victims in exchange for desisting. As discussed above, this problem is more pervasive than is ordinarily thought. From “spite fences” and strategic ranchers to opportunistic developers and “pollution entrepreneurs,” parties often engage in externality-generating activities that impose harm on victims solely to profit by then agreeing to cease their activities. In certain situations, parties threaten to engage in these activities in order to bargain with potential victims *ex ante*. In other situations, bargaining *ex ante* is infeasible and parties undertake such activities because they know there is some potential for bargaining *ex post*. In either case, strategic parties have an incentive to undertake wasteful activities, and, anticipating these activities, potential victims have an incentive to engage in wasteful precautions.

The legal system possibly can reduce, but almost certainly cannot eliminate, this type of opportunistic behavior. Transaction costs, reputation effects, and social norms may decrease the likelihood of strategic spillovers, even in the absence of any legal intervention. But when transaction costs are not prohibitive, reputation is less significant, and social norms are attenuated, strategic spillovers are a distinct possibility. As a general matter, however, the legal system usually fails to address such spillovers. Moreover, attempting to address strategic spillovers through bargaining, regulation, or a number of the other usual mechanisms for resolving conventional externalities can result in undesirable outcomes.

I suggest that policymakers and courts should be more cognizant of this type of opportunistic behavior and, in those circumstances in which detecting such behavior is feasible, should begin to address it. For example, by imposing liability on externality-generating activities, courts may be able, in certain situations, to deter strategic spillovers, while still permitting those externality-generating activities that are in fact desirable. In other situations, by refusing to enforce contracts between strategic parties and potential

¹⁰⁰ The case of *Lewis v. Gollner* illustrates the potential for subsequent strategic spillovers:

The plaintiff brought this action to obtain an injunction to prevent the erection of [five] flats. On the facts, as found below, a strong case is made out against the defendant Gollner. He bought property for \$18,000, which was its full value, and threatened to erect flats thereon, whereupon the neighbors, who owned fine residences, and who thought their homes would be injured, paid him \$6,300 simply to control the property. As soon as he has closed his bargain he buys a plot of the same size for \$20,000 on the side of the street opposite to the lots which he had sold, and commences to build flats. He negotiates with the immediate neighbors of the new purchase, asking a large advance on his purchase price, but is unable to agree with them, and continues the erection of the buildings.

14 N.Y.S. 362, 363 (1891).

victims, courts may be able to avoid both insufficiently deterring strategic behavior and excessively deterring non-opportunistic behavior. In any event, future analyses of externalities should not automatically assume that the harm arising as a byproduct of an externality-generating activity is necessarily unintended.