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Nuisance

Keith N. Hylton[*]

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Abstract: This essay sets out the law and the economic theory of nuisance. Nuisance law serves a regulatory function: it induces actors to choose the socially preferred level of an activity by imposing liability when the externalized costs of the activity are substantially greater than the externalized benefits or not reciprocal to other background external costs. Proximate cause doctrine plays a role in supplementing nuisance law.

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I. Introduction

Nuisance law has suffered from the difficulty scholars have encountered in attempting to codify it in the form of simple rules, and to understand the functions that the law serves. Prosser (1971) once described nuisance as an impenetrable jungle, and the dearth of efforts to state it in the form of blackletter rules suggests that this opinion has been shared by many legal scholars. The process of scholarly codification, that is, of taking a mass of seemingly inconsistent court decisions and generating from them a set of clear legal propositions, has been slow in the area nuisance law.

Scholarly codification and an understanding of function are likely to occur contemporaneously. When courts and legal scholars have a firm understanding of the functions of a legal doctrine, it is relatively easy for them to summarize it in the form of simple rules. For example, the "Hand Formula" of *U.S. v. Carroll Towing* is a summary of the negligence test that reflects a widely accepted understanding of the function of negligence law.

In recent years, research has focused on the function of nuisance law. I will set out the functional approach here, which uses economic analysis to understand nuisance doctrine at a high level of detail (Hylton, 2011).

Earlier efforts have been made to provide an economic theory of nuisance law. Most of those early efforts, stemming from Coase (1960), have relied on the theory of transaction costs to explain the functional distinction between nuisance and trespass law (Calabresi and Melamed 1972, Merrill 1985, Smith 2004). But the core of nuisance law consists of balancing tests and limitations on the scope of liability that are not easily understood on the basis of transaction cost theory. These tests and limitations are better understood using externality analysis.

Far from being an impenetrable jungle, nuisance law is a coherent body of rules that serves a socially desirable function. Nuisance law optimally regulates activity levels. The law induces actors to choose the socially optimal level of an activity by imposing liability when the externalized costs (of the activity) are substantially in excess of externalized benefits, or far in excess of background external costs. Proximate cause doctrine plays an important supplementary role to nuisance doctrine in regulating activity levels.

II. Nuisance Law

A nuisance is typically defined as an intentional, unreasonable, nontrespassory invasion of the quiet use and enjoyment of property. Each one of these terms has a special meaning in the law. Most of the terms are easily understood in terms of their general use in tort law. However, the term "unreasonable" is most tricky concept, because there is equivalent use of the same term in other parts of tort law.

Take, for example, the word "intentional" in the definition of a nuisance. Intentional in nuisance law has a meaning that is not very different from its meaning in other areas of tort law. Typically the defendant is guilty of an intentional nuisance if he is aware of the invasion. The law does not require the defendant to have set out to harm the plaintiff.

Similarly, nontrespassory has a meaning that is readily ascertainable from the torts case law. A trespassory invasion is one that displaces the plaintiff from all or some portion of his property. For example, a large rock that is thrown over to the plaintiff's property displaces the plaintiff from the space in which it travels and ultimately lands. This can be contrasted with a nontrespassory invasion, such as smoke or noise, which does not displace or oust the plaintiff from any space on his property.

The difficulty arises with the term "unreasonable". As a result, efforts to state nuisance law in the form of simple rules have been sparse and for the most part unsuccessful. The best known effort to codify nuisance doctrine is the Second Restatement of Torts § 826, which says:

> An intentional invasion of another's interest in the use and enjoyment of land is unreasonable if:
> (a) the gravity of the harm outweighs the utility of the actor's conduct, or
> (b) the harm caused by the conduct is serious and the financial burden of compensating for this and similar harm to others would not make the continuation of the conduct not feasible.

However, the Second Restatement's § 826 is of questionable value because it refers to the actor's *conduct* rather than his *activity*. One can draw an important distinction between these terms. Conduct often refers to an action, or a series of actions, within a short time span. Activity refers more broadly to an occupation or a significant pastime. For example, batting a baseball is a type of conduct, while playing professional baseball is an activity.

The reference to conduct could easily lead readers to believe that Restatement § 826 is equivalent to the balancing test observed in negligence law – i.e., the Hand Formula of *Carroll Towing*. The balancing test known as the Hand Formula says that the defendant is negligent if he fails to take care in a setting where his additional care would have been less costly than the additional injury costs that would have been avoided by that care. The language of Section 826 is easy to confuse with the analysis required by the Hand Formula.

If, instead, "conduct" in Restatement § 826 is understood to mean "activity" then it becomes difficult to understand how the balancing test announced in 826 should be conducted. How is it possible to compare the gravity of the victim's harm to the utility of the defendant's activity? Suppose, again, that we are talking about baseball. A ball is hit out of the baseball yard and injures a passerby on the street. How should one go about comparing the gravity of the victim's injury to the utility of playing baseball? Because this is so difficult to answer, Section 826 provides little guidance to lawyers and judges.

Moreover, part (b) of Restatement § 826 implies that strict liability should be applied to any activity that causes a "serious" interference with the plaintiff's use and enjoyment of property, provided that the activity would not be bankrupted by such liability. This implies, strangely, that a thinly capitalized activity has an advantage under nuisance law, because it appears to immunize activities that would be bankrupted by a claim for damages. The difficult question in nuisance law is how to balance the external risks and the external benefits of an activity, a question which Section 826 does not even begin to address.

The following test, based on Restatement Second § 520, provides a better summary of nuisance doctrine:

In order to determine if an invasion is unreasonable under nuisance law, the following factors should be examined:
   (a) existence of a high degree of interference with the quiet use and enjoyment of land of others;
   (b) inability to eliminate the interference by the exercise of reasonable care;
   (c) extent to which the activity is not a matter of common usage;
   (d) inappropriateness of the activity to the place where it is carried on and;
   (e) extent to which its value to the community is outweighed by its obnoxious attributes.

In the remainder of this essay I will set out the basic economic theory of nuisance doctrine and explain why it is generally consistent with these factors.

II. Economics of Nuisances

The literature on the economics of nuisance law can be divided into two branches. One is the *transaction cost framework*, which began with Coase's discussion of nuisance in his famous article on transaction costs and resource allocation. The transaction cost approach emphasizes the functional differences between nuisance and trespass law, and provides a positive theory of the boundary between nuisance and trespass (Merrill 1985, Smith 2004). It has also been applied to explain the law on priority, often described as "coming to the nuisance" (Wittman 1980, Snyder and Pitchford 2003).

The other branch of work on the economics of nuisance law can be labeled the *externality model*, which focuses on the regulatory function of nuisance law (Hylton 1996, 2008, 2010). The notion that liability rules can be used to control externalities has been well understood for a long time in the law and economics literature (Polinsky 1979). The externality approach offers a model of the function of nuisance liability, and a positive theory of the core doctrines of nuisance. The core doctrines examined under the externality model are those of intent, reasonableness, and proximate cause. I will focus on the externality model below and offer a few remarks reconciling the transaction cost and externality models at the end.

A. Activity Levels, Care Levels, and Externalities

The law and economics literature distinguishes care and activity levels (Shavell 1980). The care level refers to the level of instantaneous precaution that an actor takes when engaged in some activity. For example, an actor can take more care while in the activity of driving by moderating his speed or looking more frequently to both sides of the road. The activity level refers to the actor's decision with respect to the frequency or location of his activity. If, for example, the activity of concern is driving, it can be reduced by driving less frequently.

The invasions associated with nuisance law are external costs connected with activity level choices. Consider, for example, a manufacturer who dumps toxic chemicals into the water, as a byproduct of manufacturing. Suppose the manufacturer is taking the level of care required by negligence law (reasonable care), and, in spite of this, the manufacturing process leads to some discharge of toxic chemicals. In this case, the environmental harm is a negative externality associated with the manufacturer's activity level choice.

The framework below is of activities that impose external costs on society even when they are carried out with reasonable care (Hylton 2008). The question examined is how the law can regulate activity levels in a way that leads to socially optimal decisions.

B. The Economics of Activity Level Choices

Assume that there are two liability rules that can be applied to actors, strict liability and negligence. Under either rule, actors are assumed to take reasonable care.

For any activity, the actor engaged in it will set his privately optimal activity level at the point which maximizes his utility from that activity. That means the actor will consider the benefits he derives from the activity as well as the costs, and choose a level at which the excess of private benefits over private costs is at its maximum. If we let *MPB* represent the incremental or marginal private benefits to the actor from his activity, and *MPC* represent the incremental private costs to the actor from increasing the scale of activity, the actor will increase his activity level as long as the marginal private benefit of an additional unit of activity exceeds the marginal private cost (*MPB > MPC*). The privately optimal level of activity is the level at which the marginal private benefit to the actor is just equal to the marginal private cost (*MPB = MPC*).

The diagram labeled Figure 1 can be used to illustrate this argument. Assuming marginal benefits diminish as the actor increases his activity level, the marginal private benefit schedule can be represented by a downward sloping line, as shown in Figure 1. The marginal private cost schedule is assumed to increase as the actor increases his level of activity (see *MPC* in figure 1). The reason for this is that the incremental cost of the activity goes up as the actor increases his scale. For example, if the activity is driving, the upward sloping *MPC* schedule assumes that it is more costly to go from 50 miles per week to 51 than to go from 10 miles per week to 11. (Of course, this assumption may not

be valid in some cases. The incremental cost of going from 50 to 51 miles per week may be the same, in some cases, as the incremental costs of going from 10 to 11, but the results of this analysis are not dependent on this assumption of increasing marginal cost.)

The actor's privately optimal activity level choice is given by the intersection of the marginal private benefit and marginal private cost schedules, shown by point *A* in Figure 1. At the intersection point, the net benefits (excess of private benefits over private costs) is at its maximum.

Now introduce externalities. On the cost side, there are negative externalities (or external costs) associated with many activities. Consider, for example, driving. With each mile driven, the actor imposes some risk of harm from an accident or from pollution on the public in general. Or, if the activity is manufacturing, with each widget produced, a manufacturer who discharges chemicals in the water imposes clean-up costs on others. The marginal social cost of the actor's activity is simply the sum of the marginal private cost and the marginal external cost imposed on society.

On the benefit side, it is possible that there are benefits to society generated by the actor's activity. In the manufacturing case, suppose that instead of producing widgets, the manufacturer is producing a vaccine for some communicable disease.   Vaccines cast off substantial external benefits by reducing the risk of disease even to the unvaccinated. The marginal social benefit is the sum of the marginal private benefit and the marginal external benefit of an additional unit of activity.

The final step of this introduction to the economics of activity level choices is to consider the differences between private and social incentives. Consider the case of low externalities on both the cost and benefit sides. Suppose there are external costs and external benefits connected to the activity, but they are relatively modest. They are shown in Figure 1 by *MSC (low externality)* and *MSB (low externality)*. The socially optimal level of activity, which equates marginal social benefit and marginal social cost, is found at the point *B* in Figure 1. The socially optimal level of activity (*B*) is roughly the same as the privately optimal level of activity (*A*). The reason is that the modest positive and negative externalities cancel each other out. Given this, there is no reason for the law to intervene to try to reduce the level of activity.
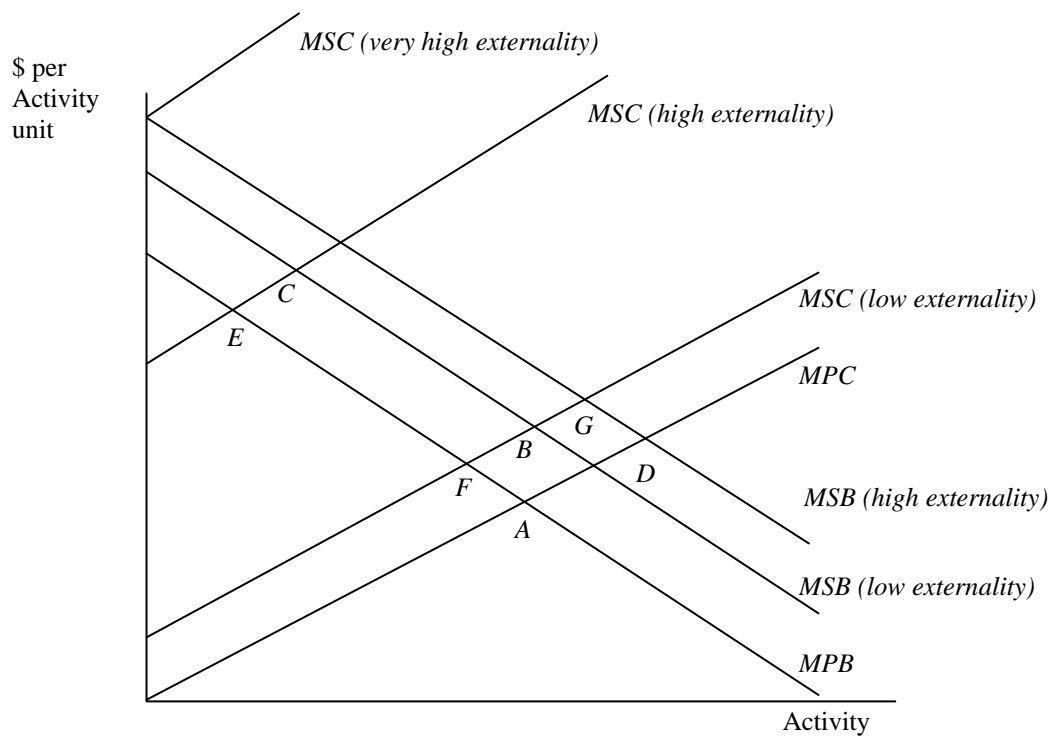
The case just considered is similar to that of an "irrelevant externality" (Buchanan and Stubblebine 1962, Haddock 2007). Although there is an external cost, society should not try to correct it because there is an offsetting external benefit. Buchanan and Stubblebine emphasized the case of offsetting internal benefit, but the concept of an irrelevant externality is equally valid if there is an offsetting external benefit.

Now consider the case of high externality on the cost side and low externality on the benefit side. This is shown by the intersection of the *MSC (high externality)* and *MSB (low externality)*, point *C* in Figure 1. In this case there is a wide divergence between the privately optimal level of activity (point *A*) and the socially optimal level of activity (point *C*). This case is one in which it appears desirable for the law to intervene to reduce

the level of activity. Indeed, in the case of very high externality on the cost side (see *MSC (very high externality)*) it may be desirable to shut down the activity completely.

Consider lastly the case of low externality on the cost side and high externality on the benefit side. The intersection of the marginal social cost and marginal social benefit schedules occurs at point *D* in Figure 1. In this case, the privately optimal level of activity (*A*) is substantially below the socially optimal level (*D*). The law should intervene to increase the actor's level of activity.

Figure 1

$ per
Activity
unit

MSC (very high externality)

MSC (high externality)

MSC (low externality)

MPC

C

E

G

B

F

D

A

MSB (high externality)

MSB (low externality)

MPB

Activity

C. Law

I have considered external costs and external benefits associated with activities conducted with reasonable care. Since the actors are assumed to be exercising reasonable care, the negligence rule cannot influence their activity level choices. The negligence rule holds the actor liable only when he fails to take reasonable care.

Strict liability has the property that it imposes liability on actors even when they have taken reasonable care. The legal system can regulate activity levels through imposing strict liability. This part examines the conditions under which strict liability leads to optimal activity levels.

First, consider the case in which externality is high on the cost side and low on the benefit side. The socially optimal scale is point *C* in Figure 1. In the absence of strict liability, the privately optimal scale is point *A*. Imposing strict liability on the actor is desirable in this case. When strict liability is imposed on the actor, his marginal private cost schedule becomes equivalent to the marginal social cost schedule.

In the case of high externality on the cost side coupled with low externality on the benefit side, the actor's privately optimal activity level under strict liability will be point *E*. It is not exactly the optimal level, which is at point *C*, but it is close. Social welfare will most likely be improved by using liability to lead the actor to produce at scale *E* rather than at the socially excessive scale *A*.

Consider the case in which externality is low both on the cost and on the benefit side. The socially optimal scale of activity is associated with point *B*. The privately optimal level of activity is associated with point *A*. These are the same activity levels. If strict liability is imposed on the actor, it will reduce his activity level below the socially optimal scale, and therefore reduce social welfare. Strict liability will cause the actor to choose the scale *F*, which is below the socially optimal scale.

This analysis implies that *strict liability is desirable only when the external cost of the actor's activity substantially exceeds the external benefit associated with the actor's activity*. In this case imposing strict liability reduces activity levels to a point that is closer to the socially optimal scale than would be observed under the negligence rule. When the external benefits are roughly equal to or greater than the social costs associated with the actor's activity, strict liability is not socially desirable.

Another case in which strict liability is not socially desirable is observed when two actors cross-externalize equivalent costs. Put another way, *when the costs externalized by two actors to each other are reciprocal*, *strict liability is not socially preferable to negligence*. The reason is that under strict liability, you will pay for harms to others, while under negligence (when everyone is complying with the negligence standard) you will pay for only for the harms you suffer. Since those harms are the same, activity levels will not differ under the two regimes (Hylton 2008, 2011).

D. Application to Law: Nuisance and Abnormally Dangerous Activities

To this point, I have presented a model of the economics of externalities and considered its implications for law. In this part, I will examine the extent to which the law conforms to the predictions of the model.

1. Abnormally Dangerous Activities

The most straightforward application of this model is to the law of abnormally dangerous activities (e.g., blasting). To determine whether an activity is abnormally dangerous, Section 520 of the Restatement (Second) of Torts provides the following factors:

(a) existence of a high degree of risk of some harm to the person, land or chattels of others;
(b) likelihood that the harm that results from it will be great;
(c) inability to eliminate the risk by the exercise of reasonable care;
(d) extent to which the activity is not a matter of common usage;
(e) inappropriateness of the activity to the place where it is carried on and;
(f) extent to which its value to the community is outweighed by its dangerous attributes.

The provisions of Section 520 are in line with the theory set out in the previous part of this chapter. First, note that Section 520 can be divided into two parts, the first three provisions and the last three provisions. The first three provisions govern the degree of residual risk, and imply that strict liability for operating an abnormally dangerous activity is appropriate only when the residual risk – the risk that remains after the actor takes reasonable care – is high. If the residual risk of the actor's activity is high, strict liability may be appropriate. On the other hand, if the residual risk is relatively low, strict liability would be inappropriate under Section 520. Judge Richard Posner famously applied this component of Section 520 to hold that strict liability would be inappropriate in *Indiana Harbor Belt Railroad Co. v. American Cyanamid Co*., 916 F.2d 1174 (7th Cir. 1990).

The final three provisions of Section 520 line up with the language in *Rylands v. Fletcher*, L.R. 3 H.L. 330 (1868), which provides the foundation for the law on abnormally dangerous activities. The third factor, common usage, helps us identify activities for which the risks are reciprocal to those of other common activities. If an activity is one of common usage, then actors engaged in those activities will impose reciprocal risks on each other, and there is therefore no basis for adopting strict liability over negligence. The fourth factor, inappropriateness, is another way of determining whether the activity imposes a reciprocated risk. The last provision, comparing benefits and risks, guides courts to compare the external benefits thrown off by the activity with the external costs. If the external costs are great relative to the external benefits, strict liability is appropriate under this provision.

Consider an example. If the actor holds a lion as a pet in his backyard, he will inevitably impose a great risk on his neighbors. Moreover, it is a risk that remains great even after

the actor has taken reasonable care. For this reason, holding a lion as a pet satisfies the first three elements of the Section 520 strict liability test. The last three elements are also satisfied. Holding a lion as a pet is not a common activity – the risk the lion-holder externalizes to his neighbors is not equivalent to the risk they externalize to him. The benefits externalized to neighbors from holding a lion as a pet are likely to be far less than the risks externalized to them. For these reasons, it is appropriate under the theory presented here and under Section 520 to apply strict liability to the activity of holding lions as pets.

2. Nuisance

The law on abnormally dangerous activities is the most obvious application of the theory of this chapter. However, the theory applies equally well to nuisance law, the subject of this chapter. Most of the standard environmental interferences, such as air or water pollution, have been treated as nuisances under tort law.

The theory of this chapter suggests a clear interpretation for the rules governing nuisance law. First, consider the basic legal definition of a nuisance: an intentional, nontrespassory and unreasonable invasion into the quiet use and enjoyment of property. Intentional, in nuisance law, has had a meaning very similar to its use in the context of trespass law: it is enough if the defendant was aware of the nuisance. There is no need, on the part of the plaintiff, to prove that the defendant aimed to harm the plaintiff. The term nontrespassory has always had the effect of distinguishing between invasions that interfere with exclusive possession of property or a portion of it (e.g., a boulder hurled onto the plaintiff's property) and invasions that merely make it less desirable to remain in possession of property (e.g., smoke).

Perhaps the most important term in the definition of nuisance is unreasonable. The theory of this chapter suggests that the factors of Section 520 are equally applicable to nuisance disputes. Paraphrasing Section 520, the appropriate test for unreasonableness under nuisance law can be articulated as follows:

(a) existence of a high degree of interference with the quiet use and enjoyment of land of others;
(b) likelihood that the harm resulting from that interference will be substantial to the typical member of the community;
(c) inability to eliminate the interference by the exercise of reasonable care;
(d) extent to which the activity is not a matter of common usage;
(e) inappropriateness of the activity to the place where it is carried on and;
(f) extent to which its value to the community is outweighed by its dangerous attributes.

The first three factors of this test require that the interference be substantial even when the actor is taking reasonable care. As in the case of abnormally dangerous activities, the first three factors should be treated as minimal requirements for nuisance liability.

The last factor asks the court to compare the benefits externalized by the activity and the costs externalized. When the benefits are substantial, the last factor suggests that the court should be reluctant to impose liability on a nuisance theory. Consider, for example, the noise generated by a busy fire station. The noise generated by fire trucks constantly moving in and out of the station with their alarms running could be deemed to substantially interfere with the quiet use and enjoyment of land by neighbors. However, the neighbors also benefit by being located close to the fire station. Since those benefits are substantial and widely dispersed, the neighbors should not be allowed to impose strict liability on a nuisance theory against the fire station, the conclusion reached in *Malhame v. Borough of Demarest*, 392 A. 2d 652 (Law Div. 1978). There is no economic basis for using liability as an incentive to force the fire station to reconsider its location decision.

Nuisance law does not provide for compensation to the extra-sensitive plaintiff (*Rogers v. Elliott*, 15 N.E. 768 (Mass. 1888)). The justification for this well-settled piece of the law is best understood in terms of the model of this chapter. A nuisance exists, under the model here, when the externalized costs associated with an activity are substantially in excess of externalized benefits. The comparison of externalized costs and benefits is made with respect to statistical averages, not to any particular plaintiff. If, on the basis of statistical averages, the externalized costs associated with an activity are not substantially greater than the externalized benefits, then the activity is not a nuisance under the theory here. If a particular plaintiff suffers a severe injury under these conditions, that harm may be actionable under some other legal theory, such as negligence, but it is not actionable under nuisance law.

Local conditions play an important role in nuisance law. In particular, the last three factors (d, e, and f) of the test proposed here depend on local conditions. Most environmental pollutants are regulated because of the risk of harm they impose on people located near the source. In most cases, the risk of harm declines as people move further from the source. Thus, externalized costs are likely to be substantial near the source and declining to zero as one moves further away. Strict liability provides incentives for the pollution generator to locate in regions in which externalized costs are insignificant.

Under the proximate cause rule courts have limited the scope of nuisance liability to injuries that are connected in a predictable way to the externalized risk. Injuries that are not predictably related to the externalized risk are not within the scope of strict nuisance liability. The externality model suggests a reason for this: to focus liability on the cost externalizing features of the defendant's activity rather than the activity per se. Suppose the victim drives his car into the defendant's malarial pond. To permit a strict liability action would fail to tax the defendant's activity for the specific risk creation – i.e., the risk of malaria – that nuisance law aims to discourage.

A clearer justification for the proximate cause rule in nuisance law can be based on the model of the previous section. Let the externalized risk component be separated into two subcomponents, where one is the normal risk externalized by activities of the defendant's type and the other is the extraordinary risk that makes the defendant's activity a nuisance. For example, in the case of a malarial pond, the normal part is the risk externalized by

any water storage, and the extraordinary part is the malaria risk. The proximate cause rule excludes liability for the normal risk component. If, as nuisance law implicitly assumes, normal risks are balanced off by (normal) positive externalities, then excluding liability for normal risk leads to optimal activity levels.

The proximate cause rule leads to the social optimum in activity by excluding the normal risk component as a source of liability. In terms of Figure 1, the "low externality" cost increment (*MSC (low externality)*) is representative of the normal risk. If normal positive externalities are present, so that *MSB (low externality)* measures the marginal social benefit of the activity, the socially optimal activity level (assuming the risk consists of both the normal and extraordinary components) is that associated with point *C*. However, strict liability applied without any offset based on the proximate cause rule would lead the actor to choose the activity level associated with point *E*. Applying the proximate cause rule of nuisance law, which limits application of strict liability to those injuries attributable to the extraordinary risk, leads the actor to choose the socially optimal activity level (point *C*). Thus, the proximate cause rule improves on strict liability by leading to an optimal imposition of liability.

3. Coming to the Nuisance

Sometimes defendants argue that plaintiffs should not be able to recover because they "came to the nuisance". The coming to the nuisance defense is valid in some cases, but not in all. The theory of this essay provides a justification for the ambiguous treatment of the coming-to-the-nuisance defense.

Since the goal of nuisance liability is to optimally regulate activity levels, a victim's decision to come to the nuisance is certainly a relevant piece of information. The victim's decision to move is no different from the case of the buyer who contracts with a seller to purchase some item with a latent and dangerous defect. If the buyers are aware of the negative feature of the product, then the resulting market equilibrium would be socially optimal. Similarly, if a smoke-belching factory sits alone in an area, and the victim moves next door to it, there would be no reason to view the factory's activity as socially excessive. In this case, the coming-to-the-nuisance defense applies.

There are two reasons that the coming-to-the-nuisance defense might not be desirable in this model. First, the victim may not have been aware of the offender's activity when purchasing his property. In *Ensign v. Walls*, 34 N.W.2d 549 (Mich. 1948), the defendant maintained dog-breeding business in residential area of Detroit. The invasions (odors, noise, occasional escapes, filth) caused by the defendant's activity may not have been obvious to prospective residents; most probably became aware of the nuisance only after moving in.

The second reason the coming-to-the-nuisance defense may not be socially desirable is that the market for real property can be distinguished from most other markets for goods or services. Suppose the community consists of one smoke-belching factory and 99 residents. It is clear in this case that the reciprocal harm condition would not be satisfied;

the background risks externalized by the residents would be trivial in comparison to the cost externalized by the factory. If the coming-to-the-nuisance defense were allowed, there would be no mechanism to control the activity level of the factory. The factory could double its level of activity without meeting any liability.

The justifications for the law on priority based on the externality model do not diminish the more traditional transaction-cost based understanding. A rule favoring priority would encourage socially wasteful races and expropriation (Wittman 1980, Snyder and Pitchford 2003). Snyder and Pitchford (2003) distinguish their analysis from the seminal analysis of Wittman (1980) by noting that their model allows for the court to have limited information, and for low transaction costs between the parties after the first move invests. Smith (2004) addresses nuisance law generally from the perspective of information costs, arguing that exclusion rules are favored by the law because they facilitate the production and disclosure of information.

III. Transaction Cost Model versus Externality Model

A complete economic model of nuisance law would consist of the transaction cost model and the externality model, with the transaction cost model used to explain the boundaries of nuisance law and the externality model used to explain its regulatory function. The foregoing analysis focuses less on the boundary question that has been the focus of transaction cost analysis and more on the regulatory function of nuisance.

I have already noted some of the boundary questions examined under the transaction cost model; specifically the choice between trespass and nuisance, and the rule on priority. The transaction cost model appears to be superior to the externality model as a theory of the boundary between nuisance and trespass law. However, both the transaction cost and externality models provide justifications for the law's treatment of priority.

One other boundary question, unexamined so far, is the exclusion of protection under nuisance law for aesthetic interests, such as the right to sunlight or to a view of the mountains, *Fountainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.*, 114 So. 2d 357 (Fla. App. 1959). The exclusion of aesthetic interests appears to be better explained by the transaction cost model than by the externality model. It is obviously an externality, in the technical sense, when a landowner erects a fence that blocks the sunlight to another adjacent landowner. There is no reason suggested by the externality model for not treating the harm to the adjacent landowner as potentially a nuisance.

Under the transaction cost model, there is a clear economic case for excluding liability for aesthetic harms. If aesthetic interests were protected by nuisance law, there would immediately be questions of information and proof. If one adjacent landowner can sue the owner of a hotel for blocking sunlight, why not allow other adjacent landowners? The transaction costs of resolving these disputes in the bargaining process would be enormous. On the other hand, if the law refuses to protect aesthetic interests, then the transaction costs of resolving disputes would be much more manageable.

VI. Conclusion

Nuisance law is complicated and covers a wide array of land use disputes. However, at its core, nuisance is simple. The law generates optimal activity levels by imposing strict liability when externalized risks are far in excess of externalized benefits or far in excess of background risks. Nuisance doctrine is consistent with this theory.

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