An Economic Approach to the Ethics of Copyright Violation

WORKING PAPER
(Comments welcomed)

19 May 2005. 11 October 2005.

Eric Rasmusen

Abstract

The utilitarian approach to ethics of Kaplow & Shavell (2001) can be fruitfully applied to the question of whether people should feel guilt over illegally copying copyrighted material. To entirely deter copying would require a norm inflicting a considerable amount of guilt on copiers, since legal enforcement of copying by individuals is so difficult. To partially deter it would be undesirable for two reasons. First, it would generate a large amount of disutility while failing to deter the target misbehavior. Second, it would reduce the effectiveness of guilt in other situations, by pushing so many people over the threshold of being moral reprobates. At the same time, the benefit from deterring copying by individuals, the increased incentive for creation of new products, is relatively small. I thus conclude that people should not feel guilty about copying.

Dan R. and Catherine M. Dalton Professor, Department of Business Economics and Public Policy, Kelley School of Business, Indiana University, BU 456, 1309 E. 10th Street, Bloomington, Indiana, 47405-1701. Office: (812) 855-9219. Fax: 812-855-3344. Erasmuse@indiana.edu. http://www.rasmusen.org,
http://www.rasmusen.org/papers/copying-rasmusen.pdf.

I thank participants in the Indiana University BEPP Tuesday Lunch Seminar and the 2005 American Law and Economics Meetings in New York, and, in particular, David Waterman, for helpful comments.

1. Introduction

You are inviting a foreign guest to an American-style birthday party at which you will, of course, sing the song "Happy Birthday," as the cake is brought out. Since this guest does not know the words to the song, you write out the words by hand on a piece of scratch paper and give it to the guest. You know, however— since I now tell you– that the song is copyrighted, and you ought to have gotten permission first, on pain of statutory damages that the judge must set at least equal to $500. I can assure you that there is no chance you will be caught, and that even if you were, it would cost more than the expected damages for the copyrightholder to sue you. Still, you are proud that it is not mere law that constrains your behavior, but your sense of right and wrong. in writing out the words would you have acted immorally?

"Do not steal," says the Bible, but applying that commandment to intellectual property begs the question. To be sure, if I play a copyrighted song in my restaurant without paying the copyrightholder, I am violating a law, if I am in the United States of 2005. But that is a separate question from whether it is immoral for my restaurant to use the song without paying. Indeed, one way to frame the situation is that it is the copyrightholder who is stealing, because he is using the coercive power of the government to take away my money, when I have every right to do things that do not hurt him– things such as playing songs.

There are many approaches to ethics. As I will discuss below, most of them are very difficult to apply to the problem of intellectual property, where our usual moral intuitions fail to apply either way and tradition provides no guide. The approach I will take here is utilitarian, in the tradition of Henry Sidgwicks 1874 *The Methods of Ethics*. In this approach, we ask what moral rules would, subject to appropriate psychological constraints, maximize social welfare. Since this is a variant on the Golden Rule– "Do as you would be done by"– it is also an attractive baseline for other ethical approaches, and for a personal guide. Moreover, it is applicable to any situation whatsoever, whether our moral intuitions apply or not.

The specific utilitarian approach I will follow is the method of the unpublished Kaplow & Shavell (2001), applying their general method to the particular problem of copyright. In their approach, we ask what levels of guilt and self-satisfaction (termed "virtue" by them) we should attach to undertaking an action or refraining from it if our objective is to maximize social welfare. The choice is subject to constraints. We must apply the same moral rule to all people, even though they are heterogeneous in their response and we will not be able to induce all of them to behave correctly. And we cannot use unlimited amounts of guilt and self-satisfaction. If we make someone feel badly about one action, we will not have as much guilt left to make him feel badly about other actions.

Ethical rules have been neglected as a tool of social control. The 2004 book of Landes & Posner, for example, has a long list of reasons why people do not violate copyright (fear of the law, the cost of copying, lower quality of copies, etc.), but omits ethical beliefs. There is, however, a growing law-and- economics literature on social norms, as surveyed by McAdams & Rasmusen (2004) for the forthcoming *Handbook of Law and Economics*, and this is perhaps most useful when it is applied to particular areas

of the law such as copyright.

Ethical rules are particularly important to intellectual property in our age because legal enforcement is so often impractical. Even though it is illegal for someone to copy a friend's music CD to his computer and play the songs for free, it is common knowledge that he will not be caught; if caught, will not be prosecuted, and if prosecuted, would likely not be convicted by a jury of his peers. Instead, the important question in determining his behavior is whether he will pay a moral cost to copying the CD. For those of us who are unsure of the ethics of copying, the question is whether we *should* incur a moral cost from copying.

The moral issue comes up most prominently in the case of downloading music from the Internet using programs such as Napster. Opinion is divided on the morality of downloading, with every gradation of feeling from the entire absence of guilt to those who regard downloading as equivalent to theft. Garon (2003) uses a newspaper quote to illustrate:

> "There's an incredible disconnect out there between what is normal behavior in the physical world versus the online world... . There are people who think nothing of downloading entire CD collections on Napster who wouldn't dream of shoplifting from Tower Records." (Amy Harmon, "Potent Software Escalates Music Industry's Jitters," *The New York Times*, 7 March 2000, p. A1)

The differences in attitudes is important to a utilitarian approach to moral rules. It seems likely that in equilibrium, even with an moral rule that imposed moderate amounts of guilt instead of our present moral rules, some people would copy, some would pay for the product, and some would simply not use it because it is not worth either the guilt or the price to them. This is a bad outcome because it results in frequent utility-reducing punishment and loss of the benefit of the product to Nonusers while still not generating revenue for the producer from every potential user.

To entirely deter copying would require a norm inflicting a considerable amount of guilt on copiers, since legal enforcement of copying by individuals is so difficult. To partially deter it would be undesirable for two reasons. First, it would generate a large amount of disutility while failing to deter the target misbehavior. Second, it would reduce the effectiveness of guilt in other situations, by pushing so many people over the threshold of being moral reprobates. At the same time, the benefit from deterring copying by individuals, the increased incentive for creation of new products, is relatively small. I thus will conclude that people should not feel guilty about copying. The argument is a complex one, however, and requires formal modelling to be made clear.

There is a voluminous literature in law on copying, and a smaller one in economics. In economics, the focus has been either positive–especially on the effect of copying on the prices sellers choose– or normative with an eye to government laws. Here, we will be looking at norms rather than laws, but, as in the economics literature, efficiency and value-maximization will be the objectives. Thus, we will be adapting the usual analysis of what amount of copying maximizes value by incorporating the impact of the moral

sanctions used to achieve that optimum, and with the aim of prescribing what behavior is best for particular situations, not what behavior can be achieved by particular laws. Conclusions like that of Besen (1986) that there should not be copying when distribution by the originator is cheaper will survive, but we will also have to consider, for example, the effect on welfare of widespread guilt over copying.

1.1 Other Ethical Approaches

Yen (1990) has a good discussion of the history of intellectual property law, with a focus on the alternative approaches of statuory rights and common law rights. The essence is this: in the law, nobody thought there were intellectual property rights until around the Statute of Anne around 1708. Yen discusses only Anglo-American law, with a brief nod to Roman law, but it appears that this is true not only of England but of every other country. Intellectual property is a modern right, undetected until late in the history of human ethics. Any ethical theory must deal with the fact that nobody thought copying was immoral until very recently in human history, after legislatures passed statutes against it. It seems in practice, if not in theory, to be immoral in lex , not in se.

To be sure, much copying is technologically new, and so might have been thought immoral in the past if the technology had been known. No doubt a 1st Century Roman would think it immoral to use a virus to erase somebody else's hard disk if we explained the situation to him. But much copying is not so different from what would have occurred back then. When I use my computer to copy a song by Kathleen Battle, it is not so different from Marcus Nemo using his slave to copy out an ode by Horace. Making 100 copies for sale using a xerox machine is more of a difference, but that is not the kind of copying most important for the present article.

Hughes (1988) has a nice discussion of the two main ethical approaches to intellectual property besides the utilitarian one: the Lockean theory of a right to one's labor and the Hegelian theory of the value of self-expression via creation and control.

The big problem for both theories is why the originator should have a right to prevent others from using his idea.

The Lockean theory fails because ideas are public goods. Ordinarily, if Smith takes away property that Jones has created by the sweat of his brow, Jones is worse off for losing the property. If the property is an idea, though, Smith's use does not hurt Jones at all, and may well help him. To be sure, Smith's use prevents Jones from selling the idea to Jones, but we do not think that Jones has a moral right to force Smith to buy the idea, and if he does not, then what has he lost by the taking?

The Hegelian theory fails because self-expression is distinct from commercialization. The originator of an idea expresses himself and exerts influence on the world by his creation, but this impact is only increased if somebody copies it, at least if the copier gives attribution to the originator. The Hegelian idea could be the basis for French "moral rights" of the creator, which allow him to restrict its abuse or destruction, but not commercial rights.

Expiration of copyright and patent rights is an additional problem for both of these

ethical theories. If natural law gives me a sacred right to my idea now, why should I lose it after 20 years or 50 years expires?

A final difficulty for ethical theories arising from natural right is that they are apt to lead to unpalatable conclusions in contexts where the "first-use doctrine" and the "no servitudes on chattels" doctrine apply. The first-use doctrine says that when the originator sells a copyrighted good such as a video or a book, he cannot use the contract to forbid the buyer from reselling or loaning out the item, for money or for free. The doctrine of no servitudes on chattels says that the originator cannot attach a covenant to moveable property such as a book or video that constrains future owners from using it in particular ways. The combined effect of these two doctrines is to prevent originators from selling videos to rental stores and books to libraries at a higher price than to consumers.

Video rental stores and libraries, of course, reduce originator profits and hurt innovation, but that is a utilitarian concern. What is of more ethical concern is that whenever, for example, someone borrows a book from the public library instead of buying a book, he has deprived the author of the fruits of his labor and participated in reducing the author's power to control his self- expression. Thus, if it is immoral to violate a book's copyright, so too it would seem to be immoral to use public libraries. Libraries are not illegal, but the law's injustice would be no reason for a moral person to do unjust things. The existence of children's sections would be particularly heinous, as encouraging children to steal.

The problem of libraries is, I think, an argument for a more utilitarian morality in this particular sphere of life. The model below will be able to address the question of whether we should have a social norm against using libraries and video rental stores.

2. The Model

A certain product has been created by the originator and is useful to consumers. Consumer i gets benefit v_i, distributed according to density $w(v)$ on support $[0, \infty]$ from use, whether he copies the product or buys it. If he copies it without paying the originator, he incurs cost c. If he buys instead, he pays the price p and incurs the transaction cost $t > 0$, while the originator incurs production cost $c_o > 0$ and transactions cost $t_o > 0$. Whether the consumer copies or buys, the originator receives benefit $b_o \geq 0$ from advertising and network externalities.

Consumers differ in their degree of "moralness", m, a parameter with density $f(m)$ and support $[0, \infty]$. The social norm consists of a pair of numbers (g, s) for guilt and self-satisfaction. A consumer who copies loses $m_i g$ in utility. A consumer who buys the product gains $m_i s$ in utility.[1] Thus, a consumer with moralness $m = 0$ has neither guilt nor self-satisfaction, whereas for a consumer with moralness $m = \infty$ his guilt and self-satisfaction overwhelm all his other concerns.[2]

[1] I use "moralness" rather than " morality" because m is meant to index the individual's susceptibility to moral influence, which combines with the group morality variable g to generate the individual's burden of guilt. The self-satisfaction, s, is what Kaplow & Shavell (2001) call "virtue", v. Since in everyday language virtue does not refer to a feeling, I prefer the term self-satisfaction.

[2] Kaplow & Shavell (2001) have consumers who differ not in their degree of moralness, but in their

A consumer's utility is $u = 0$ if he does not use the product because he neither pays for it nor copies it.

If consumer i copies, his utility is thus the benefit v_i from consuming the product minus the copying cost c and the loss $m_i g$ from guilt.

If he buys the product, his utility is v_i from consuming the product plus the self-satisfaction $m_i s$ from having paid minus the good's price p and the transaction cost t.

The price p is exogenous. This is a reasonably good assumption if most of the originator's profits will be made in selling to consumers who buy because of fear of the law rather than because of norms. If there were no such consumers, we could make p endogenous with a moderate increase in the complexity of the model.[3]

Consumer i will prefer copying to buying if

$$u(copying) = (v_i - m_i g - c) > u(buying) = (v_i - p - t + m_i s) \tag{1}$$

It may be, however, that not using the product is better for the consumer than either paying or copying. He will prefer Nonuse to buying if

$$u(nonuse) = 0 > u(buying) = (v_i - p - t + m_i s), \tag{2}$$

which implies that

$$m_i < \frac{p + t - v_i}{s}. \tag{3}$$

We can define

$$v_{nb}(m) = p + t - sm. \tag{4}$$

Consumer i will prefer Nonuse to copying if

$$u(nonuse) = 0 > u(copying) = (v_i - m_i g - c), \tag{5}$$

which implies that

$$m_i > \frac{v_i - c}{g}. \tag{6}$$

We will later use the following function that characterizes the value level, v_{nc}, at which the consumer is indifferent between copying and nonuse:

$$v_{nc}(m) = c + gm. \tag{7}$$

Depending on v_i and m_i, consumer i will make one of the three choices, nonuse, copy, or buy. Figure 1 shows this.

benefit (b here) from consumption. The point of heterogeneity in both their model and the present one is to generate diverse behavior. My moralness specification will result in three types of behavior– copying, nonuse, and buying– whereas the benefit specification would only result in two of these behaviors being used in equilibrium.

[3]For given norms (assuming the originator is not trying to influence the social planner's choice of norms), the originator would maximize his profit by choice of p, knowing that if p is higher the more sophisticated and less moral consumers will shift into copying.

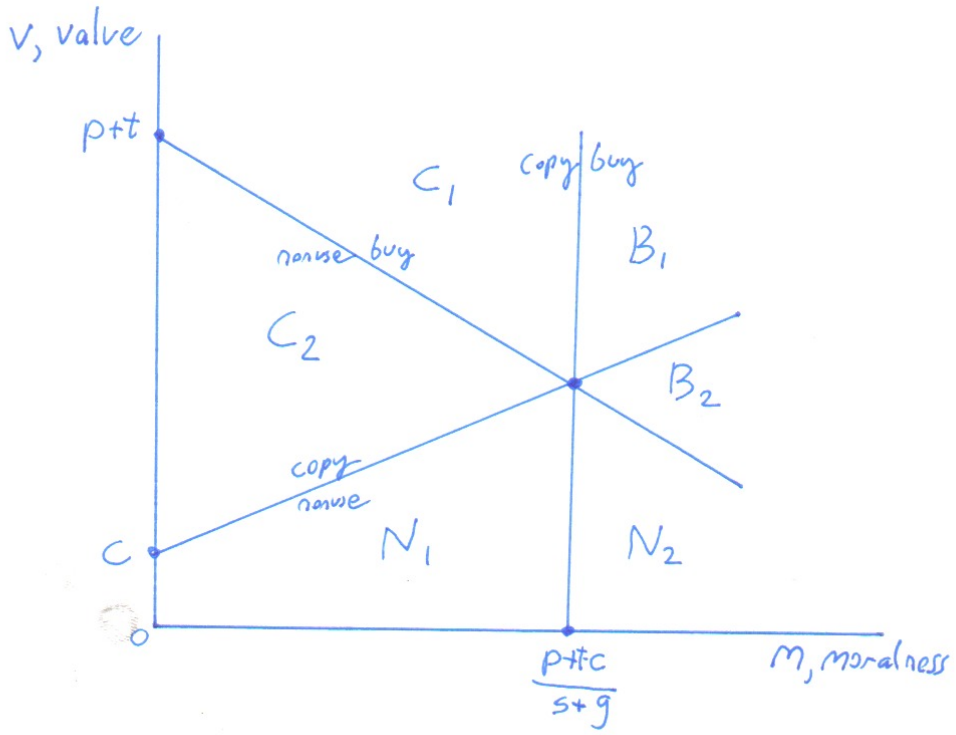

Figure 1: Consumer Utility as a Function of Moralness and Benefit

In drawing Figure 1, note the following:

1. The Buy-Copy and Copy-Nonuse lines slope down, but the Buy-Copy line has a steeper slope because the slopes in equations (**??**) and (7) are $-\left(\frac{s+g}{c}\right)$ for Buy-Copy and $-\left(\frac{g}{c}\right)$ for Copy-Nonuse.

2. The Buy-Copy line will start at a lower n if $p + t < v_i$ and in that case will never intersect the Copy-Nonuse line because of its steeper slope. That differentiates the case in Figure 2a from that in Figure 2b.

3. The Buy-Copy and Copy-Nonuse lines intersect at $m = \frac{p+t-v_i}{s}$ in Figure 2b, as can be seen by equating equations (**??**) and (7). At that point, they also intersect the Buy-Nonuse line.

4. The Buy-Nonuse line is vertical at $m = \frac{p+t-v_i}{s}$, and if $p + t < v_i$, as in Figure 2a, it is off the diagram because there is no m for which the consumer would choose Nonuse over buying. Thus, there are two possible configurations of parameter regions for different behaviors, as shown in Figure 2. In Figure 2a, the product is always used; in Figure 2b, the consumer might choose not to buy it.

The originator's payoff is $\pi = 0$ if the product is not used, $\pi = b_o$ if it is copied, and $\pi = p + b_0 - t_0 - c_o$ if it is bought.

Next, let us specify the social objective function.

One concern is whether the happiness arising from copyright violators is a good thing for society, unimportant, or bad. We will represent this by the continuous variable x, which can take any value, but which in particular will equal 1 if that happiness is treated equally with other sources of happiness (the conventional utilitarian position), 0 if that happiness is irrelevant either way, and be negative if the happiness of the violator is a bad thing. Furthermore, let us assume that unless we set $g > 0$, we must set $x = 1$; that is, unless we say that the copier should feel guilt, we should count his utility just like anybody else's.

I include this consideration to account for the possibility that the social planner (or you, the reader) do not want to count all utility equally. Many people feel uncomfortable with the proposition that rape is a good thing if the rapist derives more pleasure than the victim feels in unhappiness. The variable x is a way to allow such people to incorporate their different valuation of different kinds of utility. One interpretation of the variable x is that it represents the effect of the utility of copiers on the utility of other people. If we create a moral rule that copying is immoral, this may have the consequence that when somone copies, other people are unhappy. This is common in everyday morality: the loss from rape is not just to the victim, but to other people who hear about it and are outraged because they have been trained to believe that rape is evil.

We must, in addition, consider the incentive effect on creation. Future creation (or present creation, if the producer correctly anticipated the amount of paying) is equally discouraged by copying and by Nonuse; in either case, the creator gets nothing from a given consumer. We will incorporate the incentive effect on creation by a linear function $k(\pi(originator))$, the favorable incentive effect of one person paying for the product.

Keep in mind that the incentive effect k is a marginal one, the extra favorable incentive created by the behavior of one consumer in our model who is making the Nonuse/buying/copying decision. As specified this is an incentive without diminishing returns: $k(\pi(originator))$ is linear. But do not forget the consumers outside the model, who are buying from fear of the law. If that is a large group, the originator will make most of his revenue from them even if he earns nothing from the group in our model. This is important for thinking about the application of the model. It might be reasonable to suppose that $k(\pi(originator)) = 0$, for example, in the context of movie copying. Movies would earn huge revenues from theatre tickets and video sales even if there were no norm against copying, because most people do not have the opportunity to copy. Those revenues are crucial to the creation of new movies, but whether the additional revenue lost from copying has much effect is more dubious. It is crucial in deciding what the norm should be to realize that the law has already given originators a base level of return on their effort. The decision of whether to have a norm against copying is not so much like the decision of whether to have a copyright law as it is like the decision of whether to extend copyright lifetime from 50 years to 60.

If consumers of type (v, m) copy the product, the social benefit per consumer is $(xv - c - mg)$ from consumer utility, b_0 from originator utility, and $k(b_0)$ from future creation. It is here that the parameter x enters the model. In Figure 1, these are

consumers for whom m is small. For them,

$$W_{copy}(v,m) = xv_i - c - mg + b_0 + k(b_0). \tag{8}$$

If consumers of type (v,m) do not use the product, the social benefit is 0 from consumer utility and 0 from originator utility. In Figure 1, these are consumers for whom m is medium-sized. For them,

$$W_{nonuse}(v,m) = 0. \tag{9}$$

If consumers of type (v,m) buy the product, the social benefit is $(v - p - t + ms)$ from consumer utility plus $p + b_0 - t_0 - c_o$ from originator utility, and $k(p + b_0 - t_0 - c_o)$ from future creation. In Figure 1, these are consumers for whom m is large. For them,

$$W_{buy}(v,m) = v_i - t + ms + b_0 - t_0 - c_0 + k(p + b_0 - t_0 - c_0). \tag{10}$$

Each consumer type (v,m) generates a particular social utility $W(m,n)$ and has a frequency of $f(m)w(v)$ in the population if we assume f and g are independent functions (something probably unimportant here). There are three functions for $W(v,m)$: $W_{copy}(v,m)$, $W_{buy}(v,m)$, and $W_{nonuse}(v,m)$, where this last can be omitted because $W_{nonuse}(v,m) = 0$.

In Figure 2a, where $p + t < v$, the contribution of copying types to social welfare is made up of benefits from consumers in the area C_1, which is

$$\int_0^\infty \left(\int_0^{\frac{p+t}{s+g}} W_{copy}(v,m) f(m) dm \right) w(v) dv \tag{11}$$

and the contribution of buying types is made up of benefits from consumers in the areas B_1 and B_2, which sum to

$$\int_0^\infty \left[\left(\int_0^{\frac{p+t}{s+g}} W_{buy}(v,m)[1 - n_a(m)] f(m) dm \right) + \left(\int_{\frac{p+t}{s+g}}^\infty (1) \right) \right] w(v) dv \tag{12}$$

In Figure 2b, where $p + t > v$, the contribution of copying types to social welfare is made up of benefits from consumers in the areas C_1 and C_2, which sum to

$$\int_0^\infty \left[\left(\int_0^{\frac{p+t-b}{s}} W_{copying}(v,m) n_b(m) f(m) dm \right) + \left(\int_{\frac{p+t-b}{s}}^{\frac{p+t}{s+g}} W_{copy}(v,m) n_a(m) f(m) dm \right) \right] w(v) dv \tag{13}$$

and the contribution of buying types is made up of benefits from consumers in the areas B_1 and B_2, which sum to

$$\int_0^\infty \left[\left(\int_{\frac{p+t-b}{s}}^{\frac{p+t}{s+g}} W_{buying}(v,m)[1 - n_b(m)] f(m) dm \right) + \left(\int_{\frac{p+t}{s+g}}^\infty W_{buy}(v,m)(1) f(m) dm \right) \right] w(v) dv. \tag{14}$$

To incorporate this, we need to add a term to social welfare for "all other bad acts," similar to "all other goods" in a typical maximization problem. Let each consumer choose not only his copying behavior but whether or not to do another action, deriving additional guilt mg_a if he does it or self- satisfaction ms_a if he does not. This action represents all other socially harmful actions, but for concreteness let us call it "cheating on taxes". The benefit of cheating is b_a and the harm to other people is h_a, where $b_a > h_a$, since it is a socially harmful act. A person of type m cheats if

$$b_a - mg_a > ms_a; \tag{15}$$

that is, if

$$m < \overline{m_a} \equiv \frac{b_a}{s_a + g_a}. \tag{16}$$

The social welfare arising from cheating on taxes or not is T, the sum of the welfare from the cheats and the compliers:

$$T = \int_0^{\overline{m_a}} (b_a - h_a - mg_a) f(m) dm + \int_{\overline{m_a}}^{\infty} ms_a f(m) dm \tag{17}$$

Combining the social welfare arising from intellectual property and from cheating on taxes yields an amount Z_1 such that

$$\begin{aligned} Z_1 &= B_1 + B_2 + C_1 + C_2 \\ &+ \int_0^{\overline{m_a}} (b_a - h_a - mg_a) f(m) dm + \int_{\overline{m_a}}^{\infty} ms_a f(m) dm \end{aligned} \tag{18}$$

This is what society should maximize over g, s, g_a, and s_a. It must be maximized subject to a constraint, however. The constraint is that guilt and self-satisfaction are not available in unlimited amounts. If we create a social norm that burping is the most heinous act imaginable, and most people are feeling guilt over that, we do not have much indignation left for rape. A person, racked with guilt over burping, knows he would not feel much worse after raping someone. If we make a person feel like a saint for giving a dime to a beggar, we cannot make him feel much better for deciding to be a martyr. Thus, following Kaplow & Shavell (2001), let us assume that there are two psychological constraints such that the amount of guilt and self-satisfaction to be allocated among different actions are limited. Note, however, that someone with a large value of m has the capacity to feel much more guilt than someone with a small m. The moral budget constraint is then

$$Z_2 \equiv \int_0^{\frac{b}{g}} mgf(m) dm + \int_0^{\overline{m_a}} mg_a f(m) dm \leq \overline{g} \tag{19}$$

and

$$Z_3 \equiv \int_{\frac{b+p-t}{s}}^{\infty} msf(m) dm + \int_{\overline{m_a}}^{\infty} ms_a f(m) dm \leq \overline{s}. \tag{20}$$

The Lagrangian problem, the problem of maximizing without constraints which is equivalent to the problem of maximizing Z_1 subject to these two constraints, is

$$\underset{g, g_a, s, s_a}{Maximize} \quad Z_1 + \lambda_g(\overline{g} - Z_2) + \lambda_g s(\overline{s} - Z_3), \tag{21}$$

where λ_g is the shadow price of guilt (the value of having a little more guilt available, so $\overline{g}$ is bigger) and λ_s is the shadow price of self-satisfaction (the value of having a little more self-satisfaction available, so $\overline{s}$ is bigger).

I have not yet solved out this model. When I do, I will show (if my intuition is correct) that the two shadow prices are always positive, because the two constraints will always be binding. As a result, making copying morality more strict will be costly because it requires a loosening of tax evasion morality. Also, this result will allow a fuller explanation of why the budget constraints are plausible. If there were no budget constraint for self-satisfaction, then since that adds to utility, it should be made infinite, to maximize utility. This is a point made in Kaplow & Shavell (2001). If there were no budget constraint for self- satisfaction, then any bad action should be punished with infinite guilt, which will deter every type of person except those with $m = 0$. Thus, we think that infinite self-satisfaction and guilt are not the optima, then we must have in mind something like a budget constraint for each.

We will also see that if the form of the distribution function $f(m)$ is such that many people will choose to copy in equilibrium, then the social planner should set the guilt from copying to be low (another point made in the general case by Kaplow & Shavell [2001], for the first three reasons below but not the fourth, which is special to copyright). To the extent that he wishes to try to deter copying, he should make the self- satisfaction from not copying high instead. This is so for a number of reasons.

First, if the consumption benefit of copiers does not add to social welfare (x is small or negative), then making copying immoral eliminates the positive effect on social welfare that copiers would otherwise have. If many consumers are choosing to copy, this is a heavy loss.

Second, since guilt reduces utility in itself, if it is felt by many people, it is a heavy drain on social welfare. Like prisons, which similarly create a social cost, if guilt has little deterrence value, and must frequently be imposed, then it should be eliminated.

Third, if many people are copying, many people must feel guilt. This makes the constraint all the more binding. Too much guilt is fruitlessly expended on people who cannot be deterred anyway. That leaves less guilt available to deter the other action. It is like expending most police resources on burglars who are too hard to catch anyway, leaving little for catching drug dealers.

Fourth, if we create a system in which copying creates guilt, the result is not entirely for people to substitute to paying. Rather, they might substitute to Nonuse. This reduces consumer utility without increasing producer utility or future innovation.

There is, in the case of copyright, a special consideration: the distortion created by the positive price for a good with zero marginal product. That, however, is a well-known problem, and that cost is worth bearing if the incentive value k is great enough.

Note, however, that k here is the marginal value of having consumers pay instead of copying, which may be much less than the average value. If outside of the model, many consumers are buying anyway, for other reasons than morality (say, for convenience), then

the copyrightholder is already earning revenue from his creative activity. The question here is whether it is worth using social norms to increase his revenue. Since there are diminishing returns to incentives for creative activity, it may well be that at the optimum it is wrong to add morally motivated compliance to the paying that occurs anyway for other reasons.

Thus, it seems there is a strong case for not imposing guilt for those who violate copyright.

What about self-satisfaction for those who do pay? Kaplow & Shavell (2001) suggest that when guilt fails to deter a large number of people, self- satisfaction ("virtue" in their terminology) may be a better tool.

Such may be the case here. It depends on a number of things. Suppose we have set $g = 0$. As a result, if $s = 0$ everybody, regardless of his level of m, will choose copying rather than Nonuse or paying. If $s > 0$, then it is still the case that nobody will choose Nonuse (which does not generate s), but some people–those with large enough values of m– will now choose paying instead of copying.

Whether to set $s > 0$ depends on the shadow price of self-satisfaction – that is, on how valuable it is as an incentive in the alternative use, to stop cheating on taxes.

The level of s also depends on how many people self-satisfaction deters from copying. This is a complex effect, since if many people are deterred, then self- satisfaction from paying takes away a large amount of what is available to deter cheating on taxes.

Note, however, that the optimal level of self-satisfaction is not zero. Some people are highly moral, with very large m. They will switch to buying if s is even slightly positive, a big gain in compliance at a small cost to the self- satisfaction budget. Thus, if copyright compliance is desirable if it is costless then $s^* > 0$.[4]

Thus, while it is hard to draw a conclusion about the optimal level of self-satisfaction, the optimal level is indeed positive. The caveat must be included, however, that this is based on the assumption that copyright compliance is always efficient. If it is not, because for some products the incentive effect on creation is outweighed by the transaction cost of compliance, then a positive level of self-satisfaction will induce inefficient overcompliance.

Various Other Observations

(1) The reader will notice that this discussion has a similar flavor to that in Demsetz (1967) and Posner (1980) on primitive law. When a good is plentiful and enforcement by law is costly, it does not maximize value to create legal property rights. Here, if the incentive effects for creation of the good are small and enforcement by law and norms is

[4]This argument cannot be used to justify $g^* > 0$. It is true that some people, with large values of m, will be deterred from copying by a very small level of g– call it $\hat{g}$– so that it would be worth threatening them with guilt. This cannot be done, however, without also threatening everybody else with $\hat{g}$, and since almost everyone will copy instead of paying, there will be a large social cost of punishment– that small amount of guilt per person $\hat{g}$ multiplied by a large number of people.

costly, it does not maximize value to create normative rights.

(2) It is useful to have some of the moral budget remaining to make commercial copying immoral. Burglary is both illegal and immoral. One might think the immorality superfluous, since we have strict laws. But the norm is a useful supplement, and less expensive, in the moral budget, since the law works so well. This is why we have both laws and norms functioning. From Halpern (2000) p. 1 we find that CD pirates sell CD's on streetcorners. When on customer was asked about this, he said, "Everybody buys from [him]. The quality is very good. He's reputable and he's honest."[5] On the other hand, in a 1996 survey, just 4% of respondents agreed with the statement that "people should be allowed to tape and sell prerecorded videos to other people" (Macrovision (1996)). It is the second norm that is likely to be maximize value.

(3) This model has two clear implications for how the optimal moral rule would tell you to behave:

(a) *Copy when you wouldn't buy otherwise.* This increases consumer utility without any adverse effect on creation, and it may even aid creation, if the originator values having more people use the product.

(b) *Don't copy when buying has lower real costs, unless you wouldn't buy otherwise.* Expensive copying

Neither of these points is new, in the sense that standard economic analyses of welfare (e.g. Besen (1991)) have pointed out that these are behaviors to be encouraged, though without reference to how it might be done, whether by law or norms.

Conclusion

To entirely deter copying would require a norm inflicting a considerable amount of guilt on copiers, since legal enforcement of copying by individuals is so difficult. To partially deter it would be undesirable for two reasons. First, it would generate a large amount of disutility while failing to deter the target misbehavior. Second, it would reduce the effectiveness of guilt in other situations, by pushing so many people over the threshold of being moral reprobates. At the same time, the benefit from deterring copying by individuals, the increased incentive for creation of new products, is relatively small. I thus conclude that people should not feel guilty about copying.

[5] "The Pirates of Pop Music Fill Streets with $5 CD's," *New York Times*, Brian E. Zittel, 9 September 1999, p. E1.

References

Besen, Stanley M. (1991) "Private Copying, Reproduction Costs, and the Supply of Intellectual Property," *Information Economics and Policy*, 2(1): 5-22.

Besen,Stanley M. & Sheila Nataraj Kirby (1989) "Private Copying, Appropriability, and Optimal Copying Royalties," *Journal of Law and Economics* , 32(2): 255-280 (October 1989).

Breyer, Stephen (1970) "The Uneasy Case for Copyright," *Harvard Law Review*, 281-323.

Cooter, Robert D. (1991) "Inventing Market Property: The Land Courts of Papua New Guinea," *Law and Society Review*, 25(4): 759-801 (1991).

Demsetz, Herbert (1967) "Toward a Theory of Property Rights," *American Economic Review*, 57(2): 347-59.

Garon, Jon M. (2003) "Normative Copyright: A Conceptual Framework for Copyright Philosophy and Ethics," *Cornell Law Review*, *Cornell Law Review*, 88: 1278 (July 2003).

Gordon, Wendy J. (1993) "A Property Right in Self- Expression: Equality and Individualism in the Natural Law of Intellectual Property," *Yale Law Journal*, 102: 1533 (1993).

Green, Stuart P. (2002) "Plagiarism, Norms, and the Limits of Theft Law: Some Observations on the Use of Criminal Sanctions in Enforcing Intellectual Property Rights," *Hastings Law Journal*, 54: 167-242 (November 2002).

Halpern, Sheldon W. (2001) "The Digital Threat to the Normative Role of Copyright Law," *Ohio State Law Journal*, 62: 569 (2001).

Hetcher, Steven A. (2004) *Norms in a Wired World* (Cambridge: Cambridge University Press).

Hughes, Justin (1988) "The Philosophy of Intellectual Property," *Georgetown Law Journal*, 77: 287-366 (1988).

Kaplow, Louis & Steven Shavell (2001) "Moral Rules and the Moral Sentiments: Toward a Theory of an Optimal Moral System," Harvard University, John M. Olin Center For Law, Economics, And Business Discussion Paper No. 342 (11/2001).

Kaplow, Louis & Steven Shavell (2002b) "Human Nature and the Best Consequentialist Moral System," Harvard Center for Law, Economics, and Business Discussion Paper No. 349.

Landes, William M. & Richard A. Posner (1989) "An Economic Analysis of Copyright Law," *Journal of Legal Studies*, 18: 325.

Landes, William M. & Richard A. Posner (2003) *The Economic Structure of*

Intellectual Property Law, Cambridge, Mass: Harvard University Press (2003).

Lerner, Josh & Jean Tirole (2002) "Some Simple Economics of Open Source," *Journal of Industrial Economics*, 50: 197-234 (June 2002)

Macrovision Corp., "Pay-Per-View Movie Piracy and Taping in the Home Video Market,"(Chilton Research Services, prepared for the VSDA, 1996), p.5.

McAdams, Richard & Eric Rasmusen (2004) "Norms in Law and Economics," forthcoming, *Handbook of Law and Economic* edited by A. Mitchell Polinsky and Steven Shavell. (http://www.rasmusen.org/papers/norms.pdf) (October 5, 2004)

Posner, Richard (1980) "A Theory of Primitive Society, with Special Reference to Primitive Law," *Journal of Law and Economics*, 23(1): 1-54.

Shavell, Steven (2002) "Law versus Morality as Regulators of Conduct," *American Law and Economics Review*, 4(2): 227-257 (Fall 2002)

Sidgwick, Henry (1874) *The Methods of Ethics* (1874).

Strahilevitz, Lior Jacob (2003) "Charismatic Code, Social Norms, and the Emergence of Cooperation on the File-Swapping Networks" *Virginia Law Review*, 89: 505-595 (May 2003)

Wilson, James Q. (1993) *The Moral Sense* (Simon and Schuster, 1993).

Yen, Alfred C. (1990) "Restoring the Natural Law: Copyright as Labor and Possession," *Ohio State Law Journal*, 51: 517 (1990).