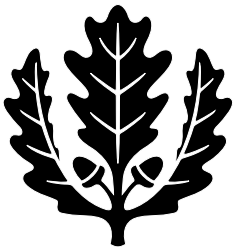

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Penalty Enhancement for Hate Crimes: An Economic Analysis

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Abstract

The issue of bias-motivated crimes has attracted consderable attention in recent years. In this paper, we develop an economic framework to analyze penalty enhancements for bias-motivated crimes. We extend the standard model by introducing two different groups of potential victims of crime, and assume that a potential offender's benefits from a crime depend on the group to which the victim belongs. We begin with the assumption that the harm to an individual victim from a bias-motivated crime is identical to that from an equivalent non-hate crime. Nonetheless, we derive the result that a pattern of crimes disproportionately targeting an identifiable group leads to greater social harm. This conclusion follows both from a model where disparities in groups' victimization probabilities lead to social losses due to fairness concerns, as well as a model where potential victims have the opportunity to undertake socially costly victimization avoidance activities. In particular, penalty enhancements can reduce the incentives for avoidance activity, and thereby protect the networks of profitable interactions that link members of different groups. We also argue that those groups that are covered by hate crime statutes tend to be those whose characteristics make it especially likely that penalty enhancement is socially optimal. Finally, we consider a number of other issues related to hate crimes, including teh choice of sanctions from behind a Rawlsian 'veil of ignorance' concerning group identity.

Journal of Economic Literature Classification: K14, K42

Keywords: law enforcement, hate crimes

1 Introduction

In recent years, the issue of bias-motivated crimes against members of minority groups has attracted considerable public attention.[1] Many state legislatures have enacted 'hate crime' laws (hereafter, HCLs) that establish enhanced penalties for bias crimes.[2] These laws, and the underlying social issue, have been the subject of considerable academic and public debate. However, the economic model of crime and law enforcement (e.g. Becker, 1968; Polinsky and Shavell, 2000a) has previously not been applied to the analysis of HCLs.[3] The objective of this paper is to develop an economic framework for the analysis of hate crimes. We extend the standard economic model by introducing two different groups of potential victims of crime, and allow for the possibility that potential offenders may derive different benefits from crimes against each group.

The central issue in the study of HCLs is how (and whether) to justify sentencing enhancements.[4] From an economic perspective, the central consideration in determining sanctions is social harm. Thus, if it could be assumed that a hate crime causes more harm to the victim than does a physically identical non-hate crime, then it would follow straightforwardly that penalty enhancements are socially optimal. Indeed, McDevitt *et al.* (2001) find evidence that the psychological harms experienced by the 'primary' (i.e. direct) victims of bias-motivated assaults are more severe than those experienced by the victims of

[1] This concern has been spurred by several horrifying high-profile incidents, such as the murder of James C. Byrd, Jr. in Jasper, Texas in 1998, and a number of mass shootings in 1999 and 2000. In particular, in the summer of 1999, Benjamin Nathaniel Smith, a member of the hate-based World Church of the Creator, carried out a series of shootings in Illinois and Indiana. The same summer, neo-Nazi activist Buford O'Neal Furrow, Jr., perpetrated shootings of minorities in the Los Angeles area. In the spring of 2000, a lawyer named Richard Scott Baumhammers also targeted minorities in a series of shootings in the Pittsburgh area. See e.g. E. Ferkenhoff and M. Ko, "Killer's Trail of Blood", *Chicago Tribune*, July 5, 1999; H. Weinstein, "Furrow Gets 5 Life Terms for Racist Rampage", *Los Angeles Times*, March 27, 2001; Anonymous, "Racist Killer of 5 Gets Death Sentence", *New York Times*, May 12, 2001.

[2] There are two types of hate crime statutes. One is based on the 'animus' model, and requires hostility on the part of the perpetrator to the victim's group. The other is based on the 'discriminatory selection' model, upheld by the US Supreme Court in *Wisconsin v. Mitchell,* 508 U.S. 476 (1993). The latter punishes the selection of victims on the basis of group characteristics, independently of any animus towards the group.

[3] Gale, Heath and Ressler (1998) develop an empirical analysis of hate crime. Jefferson and Pryor (1999) examine the determinants of the geographical distribution of hate groups, but do not address the issue of hate crimes.

[4] The early legal literature on HCLs addressed their constitutionality (e.g. Gellman, 1991). Much of the subsequent legal literature has adopted a retributivist perspective, focusing on setting penalties in accordance with the moral wrongfulness of the perpetrator's actions. Dillof (1997) terms this the wrongfulness/culpability paradigm (WCP). Within this paradigm, proponents of HCLs argue that hate crimes involve a 'greater wrong' than non-bias-motivated crimes. Harel and Parchomovsky (1999) develop a critique of the WCP, arguing that it fails to provide a secure intellectual foundation for HCLs. Instead, they advocate a victim-centered perspective (discussed further in Section 4 below). Hylton (1996) is one of the few examples in the legal literature of an analysis of HCLs from an economic perspective; the central argument is that the Federal government should require states to enact HCLs in order to correct for the suboptimal enforcement efforts of some states in dealing with crimes against minorities.

similar non-bias-motivated assaults. However, the notion that penalty enhancements can be justified by reference to greater harmfulness has been criticized (Kahan (2001) calls it the 'greater harm fallacy'), and is controversial among legal scholars. Even advocates of HCLs such as Harel and Parchomovsky (1999, p. 530) argue that "the harm inflicted by a crime against a vulnerable victim is not necessarily greater than the harm inflicted by a crime against a less vulnerable victim."[5]

We hope to advance this debate in the following way. We begin with the assumption that the harm to an individual victim from a hate crime is identical to that from an equivalent non-hate crime. However, we then seek to *endogenously* derive disparities in the *social* harms that result from a pattern of discriminatory selection of victims. That is, we show that even if a particular hate crime causes the same harm to its victim as an identical non-hate crime, a pattern of crimes disproportionately targeting an identifiable group causes greater harm than does a pattern of crimes where targets are randomly chosen.[6]

This endogenous disparity in social harms is generated through two mechanisms that are distinct (but not mutually exclusive). The first relates to fairness concerns. In our framework, with different distributions of benefits from crimes, members of the disfavored group (labeled group B) will face a higher probability of victimization in equilibrium if sanctions for hate and non-hate crimes are identical. If individuals (whether members of the dominant group or of a minority group) suffer disutility because this disparity violates ideals of fairness (rather as Polinsky and Shavell (2000b) assume that individuals experience disutility from the imposition of 'unfair' sanctions on offenders), then there will be a social loss from the failure to impose penalty enhancements.

The second mechanism assumes that individuals can undertake avoidance activities; thus, a B can avoid contact with members of the dominant group (labeled A), and thereby reduce her probability of victimization.[7] It is assumed that avoidance activities merely displace hate crimes onto other Bs, and is thus socially wasteful (however, the results extend to the case where these activities have some social value by reducing crime levels). The social waste occurs because avoidance involves foregoing opportunities for profitable transactions with As (in addition to any direct costs). Of course, non-hate crimes may also lead to avoidance activities. However, it seems reasonable to assume that the behavioral elasticity in response to hate crimes is much larger, because potential victims can easily identify and avoid members of group A, rather than having to avoid all individuals.[8]

[5] For other perspectives on this issue, see Wang (1999, 2000), Simons (2000), Blake (2001) and Posner (2001, pp. 233f). A more empirically oriented view is provided by Iganski (2001).

[6] Of course, if the harm inflicted on primary victims by bias-motivated crimes is greater, as suggested by the empirical findings of McDevitt *et al.* (2001), this would simply reinforce our argument.

[7] Note that victimization avoidance should not be confused with avoidance activities by criminals to lower their probability of detection. For a model with avoidance activities by criminals, see Malik (1990).

[8] Note the analogy here with the relative behavioral responses to a narrowly-based tax and a broad-based tax.

Taking avoidance activities into account makes penalty enhancements optimal in a wider range of circumstances. Hate crimes can be regarded as attacks on the social networks that connect different groups. The threat of such crimes induces members of the disfavored group to avoid the dominant group, foregoing profitable interactions. This social waste can be ameliorated by instituting penalty enhancements. Thus, we ultimately agree with the position that: "The primary justification for bias crime laws is to redress the greater harms caused by bias crime" (Wang, 1999, p. 805); however, we emphasize the importance of deriving these greater harms endogenously, rather than simply assuming their existence. It should be noted that the Supreme Court, in upholding the Wisconsin bias crime statute at issue in *Wisconsin v. Mitchell*[9] explicitly noted that "this conduct [the perpetration of hate crimes] is thought to inflict greater individual and societal harm." We hope that our model helps to *explain* why this is the case.

Our second goal is to propose an explanation for why some types of bias-motivated crimes are subject to penalty enhancements, while others are not. The formulation used in our model to capture the notion of bias (involving different benefits from crimes against members of different groups) is completely general, in the sense that it can be used to represent bias against a group such as the homeless as well as bias against racial minorities. However, the scope of HCLs is typically restricted to certain groups. Recently, Posner (2001, pp. 233f) has argued that the subset of groups who gain the protection of HCLs is determined not by issues of principle, but by interest group pressures. Against this view, we contend that the efficiency and fairness concerns analyzed in this paper not only justify the use of penalty enhancements in certain circumstances, but also help to explain which groups should be protected by HCLs.

In particular, in Section 2, we establish a condition on the probability distributions of criminal benefits that is sufficient for penalty enhancements to be optimal purely on efficiency grounds (this condition embodies a tradeoff between the value of deterrence and the costs of imposing punishment). In Sections 3 and 4, fairness concerns and the possibility of avoidance activities are incorporated to yield analogous conditions. When these conditions are satisfied for a particular group B, then it is socially optimal to enact penalty enhancements that punish bias-motivated crimes against Bs more severely. However, it is not optimal to enact penalty enhancements for a group for which these conditions are not satisfied. Moreover, we argue in Section 5 below that the observed pattern of the types of groups included in HCLs closely tracks what our theoretical results would suggest. For example, HCLs typically apply to groups who have faced a long history of prejudice; thus, one would expect that there are a relatively large number of potential offenders who would derive especially large benefits from attacking such groups, and hence that HCLs can deter a relatively large number of such offenders. In addition, HCLs usually apply to groups that are identifiable by immutable characteristics, or who face large costs of changing or disguising their group identity. Potential victims from such groups can only

[9] *Supra note 2 at 487-488.*

reduce their probability of victimization by avoiding members of the dominant group A (rather than, for instance, by 'passing' as As), so the social losses from avoidance activity by such groups are likely to be especially large.

In Section 2, the basic model is introduced. Fairness concerns are introduced in Section 3, and the extension with avoidance activities is developed in Section 4. Section 5 discusses some implications of the results, while Section 6 concludes the paper.

2 The Basic Model

Our model is based on the framework presented in Polinsky and Shavell (2000a). Individuals are assumed to be risk-neutral, with the population size normalized to 1. In their model, individuals can commit an act that causes harm h to society. If an individual commits this offense, she is detected with probability p and bears a (monetary) sanction s.[10] An individual decides to commit an offense if the illegal gain b exceeds the expected sanction ps.

In our model, each potential offender belongs to an identifiable group (e.g. an ethnic group) that will be referred to as group A. A potential offender has exactly two opportunities to commit a crime, one against another member of group A, and the other against a member of a different group of equal size, denoted as group B.[11] The distribution function for benefits from crimes against members of group A is represented by $F_A(b)$; b is the level of benefits, where $b \in [0, \overline{b}_A]$, and $F_A(b)$ is the fraction of individuals deriving benefits less than b from the crime against A. The distribution function for benefits from crimes against members of group B is represented by $F_B(b)$, where $b \in [0, \overline{b}_B]$, and $F_B(b)$ is the fraction of individuals deriving benefits less than b from the crime against B. The probability density functions are denoted by $f_A(b)$ and $f_B(b)$, respectively.[12]

It is assumed that potential offenders receive 'larger' benefits from committing the crime against Bs rather than As.[13] This assumption, which is intended to capture the idea of bias against Bs in the selection of victims, entails that: 1) $\overline{b}_A < \overline{b}_B$,

[10] Their results can easily be extended to the case of nonmonetary sanctions; note that we assume costly punishment in the analysis that follows.

[11] A more general formulation, in which Bs can attack As as well as As attacking Bs, can be developed, but does not lead to significantly different conclusions.

[12] Note that, unlike in the basic economic model, the benefits from crime here include gains that are nonmonetary in nature (e.g. ideological gratification).

[13] Our formalization closely parallels Wang's (1999) informal discussion of the 'discriminatory victim selection' model, where a bias crime requires that the fact that the victim belongs to a certain group is a significant or a substantial factor in the decision whether or not to commit a crime. According to this model, a rational criminal takes the victim's characteristics into account in planning a crime, and, in the case of a bias-motivated crime, the benefit from this crime is enhanced relative to a similar crime but with a different victim.

Note that it can be argued that for some crimes (such as cross-burning) the perpetrator's benefits depend *entirely* on the identity of the victim (so they would never commit the crime against As). This can easily be accommodated in this framework by setting $\overline{b}_A = 0$ and $F_A(0) = 1$.

2) for given b, $F_A(b) > F_B(b)$ (which implies that $1 - F_A(b) < 1 - F_B(b)$)
3) for low values of b, $f_A(b) > f_B(b)$; for high values of b, $f_A(b) < f_B(b)$.

As discussed in the Introduction, the harm from the crime is assumed to be h, regardless of whether it is committed against an A or a B. The government cannot observe the benefits derived by offenders (which seems reasonable, given that we include nonmonetary gains), although it knows the probability distributions of these benefits.[14] In particular, the government can determine *ex post* (at trial) whether or not the crime was bias-motivated (i.e. it can determine the offender's relative benefits from attacking Bs rather than As). Consequently, it can be assumed without loss of generality that different penalties can be established for crimes against As than those for crimes against Bs. The idea is not that sanctions depend on the victim's identity *per se*, but rather that non-bias-motivated crimes against Bs are essentially identical to crimes against As, and so do not need to be analyzed separately.

As in Shavell (1987) and Polinsky and Shavell (1999), punishment is assumed to be costly in this model. If punishment were costless, the issue of penalty enhancements would be moot, as penalties would always be set at the maximal levels that will deter all crime. The cost of punishment is denoted by $c(s)$, where s is the punishment, and $c(s)$ is assumed to be increasing and convex. There is an exogenous probability of detection p that is fixed regardless of whether the crime is against an A or a B.[15] Let s_A be the penalty for crimes against As, and s_B be the penalty for (bias-motivated) crimes against Bs. The number of individuals committing the crime against As will then be $1 - F_A(ps_A)$, and the number of individuals committing the crime against Bs will be $1 - F_B(ps_B)$. It follows straightforwardly from Assumption (2) that, if there are no penalty enhancements ($s_A = s_B$), then Bs will face a higher probability of victimization in equilibrium (this theme is developed further in Section 4).

Following the standard framework (Polinsky and Shavell, 2000a), social welfare should be defined as the sum of benefits minus harm from crimes, minus punishment costs. Given the assumptions above, aggregate social welfare is:

$$W = \int_{ps_A}^{\bar{b}_A} (b - h - pc(s_A))dF_A(b) + \int_{ps_B}^{\bar{b}_B} (b - h - pc(s_B))dF_B(b) \qquad (1)$$

While common, the practice of including benefits from crime in the social welfare function has given rise to some controversy, both within and outside the law and economics tradition. In this particular context, it may be argued by some that the inclusion of that component of illegal gains directly attributable to hatred of Bs (i.e. the extra benefit derived by attacking Bs relative to that

[14] If the precise benefits were known to the government, then an argument for the efficiency of penalty enhancements could be developed through a straightforward extension of Shavell (1987). In particular, if the gain to a perpetrator from a hate crime is higher than the gain from an otherwise identical crime against an A, the expected sanction should be higher, even though sanctions are never actually applied.

[15] This is not to deny that the extent and vigor of law enforcement activity may differ depending on the identity of the victim (e.g. Hylton, 1996); however, the focus here is not on this issue.

from committing the same offense against As) is especially unattractive from an ethical standpoint. In response to such concerns, we follow Shavell (1985) in assuming that society weights criminal gains from offenses against As and Bs by $0 \leq \sigma_j \leq 1$ $(j = A, B)$. In view of the bias against Bs that exists among potential offenders, it may be thought that society should discount the gains obtained by bias-motivated offenders more, so that $\sigma_A > \sigma_B$. Given the assumptions above, aggregate social welfare can now be expressed as:

$$W = \int_{ps_A}^{\overline{b}_A} (\sigma_A b - h - pc(s_A)) dF_A(b) + \int_{ps_B}^{\overline{b}_B} (\sigma_B b - h - pc(s_B)) dF_B(b) \quad (2)$$

Notice that (2) is reduced to (1) when $\sigma_A = \sigma_B = 1$. Thus, (1) is a particular case of (2).

The social objective is to choose s_A and s_B to maximize the above expression. The first order condition with respect to s_j $(j = A, B)$ is:

$$[h + pc(s_j) - \sigma_j p s_j] f_j(ps_j) p - pc'(1 - F_j(ps_j)) = 0$$

The second order condition is assumed to be satisfied.[16]

Rearranging the first order condition:

$$\frac{f_j(ps_j)}{1 - F_j(ps_j)} [h + pc(s_j) - \sigma_j p s_j] = c' \quad (3)$$

The left-hand-side is the marginal benefit and the right-hand-side is the marginal cost. Suppose it is optimal to impose the same sanction ($s_A = s_B$). The marginal cost (right-hand-side) is the same for both A and B. Thus, the marginal benefit (left-hand-side) must be the same. As a consequence, it must be true that at the optimum:

$$\frac{f_A(ps_A)}{[1 - F_A(ps_A)]} [h + pc(s_A) - \sigma_A p s_A] = \frac{f_B(ps_B)}{[1 - F_B(ps_B)]} [h + pc(s_B) - \sigma_B p s_B]$$

In other words, if it is optimal to have a policy given by $s_A < s_B$, it must be the case that the marginal benefit of deterring As is much lower than the marginal benefit of deterring Bs.

Let us rearrange (3) so that we have:

$$[h + pc(s_j) - ps_j]/c' = [1 - F_j(ps_j)]/f_j(ps_j) - (1 - \sigma_j) ps_j/c' \quad (4)$$

A necessary and sufficient condition to ensure that the optimal s_A is less than the optimal s_B is:

$$\frac{1 - F_A(b)}{f_A(b)} + (\sigma_A - \sigma_B) ps_A/c' > \frac{1 - F_B(b)}{f_B(b)} \quad (5)$$

[16] The SOC will be satisfied if it is assumed that c'' is sufficiently positive:

$$(2c' - \sigma_j) f_j(ps_j) p^2 + [h + pc(s_j) - \sigma_j p s_j] f_j'(ps_j) p^2 - pc''(1 - F_j(ps_j)) < 0$$

for any given b in the relevant neighborhood (i.e., for values of b in the neighborhood of ps_A).

The intuition for the condition above can be clarified as follows. The left-hand-side of (4) is the same when $s_A = s_B$. Thus, it will be optimal to have $s_A < s_B$ when the right-hand-side is greater for As than for Bs by the principle of maximization. In fact, the left-hand-side can be regarded as 'marginal benefit' (the marginal value of deterrence) and the right-hand-side can represent the 'marginal cost' of raising punishment. It will be optimal to have $s_A < s_B$ when, for the same marginal benefit, the marginal cost of punishing crimes against As is higher than punishing crimes against Bs.

Our results suggest that bias-motivated crimes should be punished more severely if and only if (5) is satisfied. Thus, penalty enhancements are optimal for a subset of bias-motivated crimes, namely, those that satisfy (5) - i.e. those for which the marginal cost of punishment is lower for a given marginal benefit. Another implication relates to the conditions under which (5) is more likely to be satisfied. Given our assumptions about the probability distributions ($F_A(b) > F_B(b)$ for large b), it is more likely that a bias-motivated crime should incur enhanced penalties when

(a) $f_A(b)$ is sufficiently smaller than $f_B(b)$ (in the relevant range): i.e. the density of deterred offenses at the margin is higher for crimes against Bs than for those against As. By increasing punishment against both types of offenses at the margin, more offenses against Bs will be deterred than offenses against As.

(b) σ_A is sufficiently larger than σ_B: i.e. society weights offenses against As significantly more than those against Bs. As a consequence, the social damage caused by offenses against Bs is higher than social damage caused by offenses against As (even though the direct harm h is assumed to be the same for both).

Finally, note that, in a pure utilitarian framework (where $\sigma_A = \sigma_B = 1$), relatively fewer bias-motivated crimes would be punished with enhanced penalties.

3 Incorporating Fairness Considerations

The analysis so far has focused mainly on efficiency criteria for the optimality of penalty enhancements. However, as discussed earlier, much of the previous literature on the issue has been framed in terms of fairness concerns. This section incorporates such considerations into our analysis of HCLs in two different ways. First, we discuss a Rawlsian approach to hate crimes; then, we focus on the 'fair protection' approach of Harel and Parchomovsky (1999).

3.1 A Rawlsian Approach to HCLs

The condition above (5) for the optimality of penalty enhancements was derived purely on efficiency grounds, with the penalties chosen to maximize social welfare. However, because the issues surrounding HCLs often involve immutable

group differences, the literature on the topic has emphasized fairness concerns. One approach to modeling fairness concerns is to use the 'veil of ignorance' construct of Rawls (1971), where individuals are required to make social decisions while unaware of certain morally irrelevant characteristics they will have when subject to the effects of those decisions. In this context, a Rawlsian approach entails a representative individual choosing s_A and s_B without knowing whether she belongs to group A or to group B.[17] The surprising result here is that this decision problem gives rise to essentially the same condition for the optimality of penalty enhancements as that in (5).

Suppose that a representative individual is placed behind a Rawlsian 'veil of ignorance', where she has an equal probability (of 1/2) of being an A or being a B. If she becomes an A, she will face the probability of victimization that pertains to As, and may also anticipate deriving benefits from crimes against As and/or Bs. The latter possibility depends on whether her criminal benefits b_A and b_B are sufficiently high for her to commit a crime, and thus depends on the distribution functions $F_A(b)$ and $F_B(b)$ of benefits from crime. In addition to the harm from victimization and the possible benefits from crime, she faces taxation by the government to finance the costs of imposing penalties on offenders. It is assumed that these costs are financed by uniform lump-sum taxes, imposed equally on As and Bs (so that she bears 1/2 the tax cost, regardless of her group). Thus, the payoff if she becomes an A, denoted V^A, can be expressed as:

$$V^A = -h(1 - F_A(ps_A)) + \int_{ps_A}^{\overline{b}_A} (b - ps_A) dF_A(b) + \int_{ps_B}^{\overline{b}_B} (b - ps_B) dF_B(b) - T/2$$

where T is the aggregate level of taxation to finance the costs of imposing penalties on offenders.

The representative individual also faces a 1/2 probability of becoming a B. If she is a B, she faces the probability of victimization that pertains to Bs. In addition, she faces half the tax costs T of imposing sanctions on offenders. However, because (by assumption) Bs do not enjoy any opportunities for crime, she does not anticipate any possible criminal benefits if she becomes a B. Thus, the payoff from being a B, denoted by V^B, can be expressed as:

$$V^B = -h(1 - F_B(ps_B)) - T/2$$

Note also that the government faces a budget constraint

$$T = \int_{ps_A}^{\overline{b}_A} p(c(s_A) - s_A) dF_A(b) + \int_{ps_B}^{\overline{b}_B} p(c(s_B) - s_B) dF_B(b)$$

The representative individual's program behind the veil of ignorance is to choose s_A and s_B to maximize her expected payoff $(1/2)V^A + (1/2)V^B$ (or

[17] The application of a Rawlsian approach to criminal law issues is novel, although it has been used in other areas of law and economics (e.g. Fischel and Shapiro (1989) on compensation for takings).

$V^A + V^B$) subject to the budget constraint above. Substituting the constraint into the objective function, the expected payoff can be expressed as (1). Solving this for the representative individual's optimal choices of s_A and s_B leads to essentially the same conditions as those for the social welfare maximization problem. The conditions for penalty enhancement to be optimal for the representative individual are thus similar to those in (5) for the efficiency of penalty enhancement when $\sigma_A = \sigma_B = 1$.

The above analysis did not make any particular assumptions about the representative individual's attitudes towards risk. The Rawlsian approach generally assumes risk-aversion on the part of decisionmakers. In this context, this involves replacing the harm h in the expected payoff with some concave function $u(h)$ of h. Doing so will increase the optimal penalty levels s_A and s_B, but will not alter the *relative* levels of the sanctions, and thus will not change the conditions for the optimality of penalty enhancements.

The intuition for this surprising equivalence between the efficiency and Rawlsian approaches can be summarized as follows. In a typical Rawlsian scenario, different states of the world lead to different incomes. Here, they lead to different probabilities of victimization, with the harm h being the same whether one is an A or a B. In a standard expected utility calculation, risk aversion is defined only over the payoffs, not the probabilities, so the expected utility is always linear in the probabilities. As h is the same in each state of the world, risk aversion over h will not change the relative sanctions that are chosen.

3.2 Fair Protection

Recall that, in the equilibrium of our basic model, a member of group A has a probability $1 - F_A(s_A)$ of being victimized, whereas a member of group B faces a probability $1 - F_B(s_B)$ of being victimized; in general, these probabilities will differ, so that an individual's vulnerability to crime depends on her group classification.

Harel and Parchomovsky (1999) (hereafter HP) advocate a victim-centered approach (termed the 'fair protection' paradigm (FPP)) to HCLs, based on the premise that criminal law should distribute protection from crime 'fairly'. While they do not define fairness precisely, HP argue that, at a minimum, the state should counteract the effects of race and other group characteristics on an individual's 'vulnerability' (measured by the expected costs of crime). Within their perspective, considerations of equality or fairness require that the criminal justice system should seek to equate the probabilities $1-F_A(s_A)$ and $1-F_B(s_B)$, or at least to reduce disparities between them.

This fairness notion can be captured by assuming that there exists a social cost given by:

$$u = h(F_B(ps_B) - F_A(ps_A))^2/2 \tag{6}$$

This can be regarded as either representing a direct concern for fairness in the specification of the social welfare function, or as a reduced form characterization of a situation in which individuals have a concern for fairness, and suffer

disutility from observing disparities in the victimization probabilities. The latter interpretation is analogous to that of the model in Polinsky and Shavell (2000b), where individuals experience disutility from observing 'unfair' sanctions being imposed on offenders. It should be noted that, in this model, the disutility from 'unfairness' can be experienced by *both* As and Bs. What is envisaged here is not simply that Bs suffer extra disutility when they are targeted, but that disparate victimization violates widely held notions of fairness, shared by most As as well as Bs.

Aggregate social welfare can be characterized as:

$$W = \int_{ps_A}^{\overline{b}_A} (\sigma_A b - h - pc(s_A))dF_A(b) + \int_{ps_B}^{\overline{b}_B} (\sigma_B b - h - pc(s_B))dF_B(b) - u \quad (7)$$

The first order conditions are:

$$[h + pc(s_A) - \sigma_A ps_A]f_A(ps_A)p - pc'(1 - F_A(ps_A))$$
$$+h(F_B(ps_B) - F_A(ps_A))f_A p = 0$$

$$[h + pc(s_B) - \sigma_B ps_B]f_B(ps_B)p - pc'(1 - F_B(ps_B))$$
$$-h(F_B(ps_B) - F_A(ps_A))f_B p = 0$$

The second order conditions are assumed to be satisfied. Rearranging the first order conditions:

$$[h + pc(s_A) - \sigma_A ps_A]/c' = [1 - F_A(ps_A)]/f_A(ps_A) - (F_B(ps_B) - F_A(ps_A))h/c'$$

$$[h + pc(s_B) - \sigma_B ps_B]/c' = [1 - F_B(ps_B)]/f_B(ps_B) + (F_B(ps_B) - F_A(ps_A))h/c'$$

The following condition is necessary and sufficient to ensure that optimal s_A is less than optimal s_B:

$$\frac{1 - F_A(b)}{f_A(b)} + (\sigma_A - \sigma_B)ps_A/c' + 2(F_A(b) - F_B(b))h/c' > \frac{1 - F_B(b)}{f_B(b)} \quad (8)$$

for any given b in the relevant neighborhood (i.e., for values of b in the neighborhood of ps_A).

It is important to note that there are circumstances in which condition (5) is not satisfied, but where (8) is satisfied. The new term on the left-hand-side is strictly positive, and makes lower values of s_A and higher values of s_B (relative to those derived in Section 2) socially optimal. Thus, some bias-motivated crimes that would not be subject to penalty enhancement under a pure efficiency perspective will come within the purview of HCLs under HP paradigm.

The approach taken above is closely related to that of Polinsky and Shavell (2000b). However, they examine the perceived fairness of sanctions *per se*, whereas the model here extends this concern to the fairness of the probabilities of victimization that result from the choice of sanctions. We should emphasize that most arguments that have been made for HCLs are related to this fairness-based

rationale. In essence, they involve the idea that hate crimes (and the associated disparities in the probability of victimization) violate ideals of fairness, leading to a social loss either intrinsically or through the utility losses suffered by those who observe these crimes and disparities. Our model thus provides a succinct formalization of the most prevalent justifications for HCLs.

4 Introducing Avoidance Activities

In the previous section, we introduced an exogenous social loss from disparities across groups in the likelihood of victimization. In this section, we consider a more specific source of this social loss. In particular, while still relying on the idea that a major problem with bias-motivated crimes is that they lead to different probabilities of victimization across different groups, we propose an efficiency-based approach here that is distinct from the fairness notion of the HP paradigm.

We have shown earlier that the results obtained in Section 2 continue to hold when s_A and s_B are chosen by a representative individual behind a veil of ignorance. Now, assume that after the veil is lifted and group membership is revealed, individuals, taking s_A and s_B as given, can expend resources in avoiding victimization. That is, it is possible for victims of each group to avoid As, thereby foregoing some profitable transactions, but (probabilistically) displacing crime onto other victims of the same group. For example, an individual B can reduce his probability of victimization by avoiding contact with As, but determined offenders will nonetheless find some other B to attack.[18]

The probability that an individual from group A is a victim is given by $(1 - F_A)(1 - \gamma(x_A, \bar{x}_A))$ and the probability that an individual from group B is a victim is given by $(1 - F_B)(1 - \gamma(x_B, \bar{x}_B))$, where x_j is expenditure on victimization avoidance by each individual of group j and $\bar{x}_j$ is total expenditure on victimization avoidance by group j, $j = A, B$. These 'expenditures' can be regarded as the lost surplus from transactions that do not occur because of the avoidance of potential offenders (although direct costs of avoidance could also be included).

The probabilistic displacement function $\gamma(x, \bar{x})$ has the following properties: $\gamma_x > 0$ and $\gamma_{xx} < 0$. We have assumed a continuous population normalized to one. Thus, each individual is negligible, so that $x/\bar{x} \to 0$. Each individual takes $\bar{x}$ as given, so that $\gamma_{\bar{x}} < 0$. Clearly, $\gamma(0, 0) = 0$, and if every individual of a given group spends the same amount x, $\gamma(., .) = 0$.[19]

[18] Since in equilibrium there is no actual displacement, the assumption that displacement is only possible within the same group is for convenience and without loss of generality.

[19] Note that we present a model of (probabilistic) victimization displacement, and not of victims' precaution. Thus, the resources spent x have no effect on the probability of detection of criminals. More realistically, victims' avoidance expenditures will both deter and displace crime. Nonetheless, as long as there is some displacement effect, the results of this section will hold (however, the socially optimal level of victim avoidance will be positive, rather than zero). See Garoupa (2001) for an analysis of victim behavior.

The expected payoff of an individual of group A is:

$$\begin{aligned} V^A &= -h(1-F_A(ps_A))(1-\gamma(x_A,\bar{x}_A)) + \int_{ps_A}^{\overline{b}_A}(b-ps_A)dF_A(b) \\ &\quad + \int_{ps_B}^{\overline{b}_B}(b-ps_B)dF_B(b) - T/2 - x_A \end{aligned}$$

The expected payoff of an individual of group B is:

$$V^B = -h(1-F_B(ps_B))(1-\gamma(x_B,\bar{x}_B)) - T/2 - x_B$$

Each individual of group $j = A, B$ will spend x_j^* on victimization avoidance:

$$\gamma_{x_j}(x_j^*)h(1-F_j(ps_j)) = 1$$

and the second-order condition is always satisfied. The amount of resources spent x_j^* increases with $h(1-F_j)$ and thus decreases with s_j (since more criminals are deterred). Note that x_j^* is a reaction function. Solving for the Nash equilibrium, we derive $\hat{x}_j$, which presumably increases with $h(1-F_j)$ and decreases with s_j. More importantly, $\lambda_j(\hat{x}_j, \bar{x}_j) = 0$ because all individuals within a group are identical. Each individual spends a positive amount of resources on avoidance, but ends up facing the same probability of victimization as she would have in the absence of the possibility of avoidance activity. Total expenditure $\bar{x}_j$ is increasing in $h(1-F_j)$ and decreasing in s_j. Note that for $s_A = s_B$, we will have $x_B^* > x_A^*$ because $F_A > F_B$. For the same level of sanctions, the Bs will waste more resources than the As because they have a higher likelihood of being victims.

Aggregate social welfare can be characterized as:

$$W = \int_{ps_A}^{\overline{b}_A}(\sigma_A b - h - pc(s_A))dF_A(b) + \int_{ps_B}^{\overline{b}_B}(\sigma_B b - h - pc(s_B))dF_B(b) - \bar{x}_A - \bar{x}_B \quad (9)$$

where the aggregate expenditures on avoidance activities represent a social loss (as displacement generates no social benefit while leading to lost trading opportunities).

The social objective is to choose s_A and s_B to maximize the above expression. The first order condition with respect to s_j $(j = A, B)$ is:

$$[h + pc(s_j) - \sigma_j ps_j]f_j(ps_j)p - pc'(1-F_j(ps_j)) + p\bar{x}_j' h f_j = 0$$

The second order condition is assumed to be satisfied. Rearranging the first order condition:

$$[h + pc(s_j) - \sigma_j ps_j]/c' = [1-F_j(ps_j)]/f_j(ps_j) - \bar{x}_j' h/c'$$

The following condition is necessary and sufficient to ensure that optimal s_A is less than optimal s_B:

$$\frac{1-F_A(b)}{f_A(b)} + (\sigma_A - \sigma_B)ps_A/c' + (\bar{x}_B' - \bar{x}_A')h/c' > \frac{1-F_B(b)}{f_B(b)} \quad (10)$$

for any given b in the relevant neighborhood (i.e., for values of b in the neighborhood of ps_A). Note the similarities between (8) and (10). Taking the possibility of socially wasteful avoidance expenditures into account leads to a condition that closely resembles our earlier formal characterization of Harel and Parchomovsky's FPP without, however, relying on fairness considerations.

The intuition for condition (10) can be summarized as follows. Consider the values of s_A and s_B that emerge from the social optimization problem in Section 2. Introducing avoidance activities makes it socially efficient to increase both s_A and s_B, as doing so reduces the social waste from displacement activities. However, Bs engage in more avoidance activity for any given penalty level, as they face a higher probability of victimization. Thus, in general, it will be socially optimal to raise s_B relative to s_A, as there is a larger social gain from inducing Bs to reduce their avoidance activities. As a consequence, it may be the case that some bias-motivated crimes that would not incur penalty enhancement by the condition in Section 2 should do so according to (10) because penalty enhancements reduce the incentives for Bs to avoid As for fear of victimization, thereby foregoing valuable trading opportunities.

5 Discussion

The analysis in the preceding three sections of the paper has shown that penalty enhancements for bias-motivated crimes are socially optimal in certain circumstances. However, a further challenge remains - it is unclear whether the conditions that our results identify as those in which penalty enhancements are optimal correspond to those in which we actually observe HCLs being enacted. In particular, recall that our formulation of the notion of bias - with offenders deriving different benefits from crimes against members of different groups - does not impose any restrictions on the nature of the groups involved. Thus, the disfavored group B may, for instance, be homeless people, or the 'geeks' discussed in Blake (2001), rather than, say, racial minorities. Yet, HCLs typically restrict their scope to racial and religious minorities, and a few other groups; in general, not all groups that may conceivably be the targets of bias-motivated crime are included. Thus, Posner (2001, p. 233) has recently argued that ". . . advocates of enhanced punishment for "hate crimes" mean by the term [only] . . . crimes against members of groups for which they have a particular solicitude, such as blacks, Jews, and homosexuals." He suggests (p. 235) that HCLs involve ". . . varying the severity of punishment . . . in order to make a political or ideological statement or, what is often the same thing, to accommodate the pressures of politically influential groups."

We believe that our results can be used to develop a principled justification for HCLs, in contrast to Posner's (2001) view that they are the result of interest group pressures.[20] Consider first the efficiency condition (5) for penalty

[20] An alternative perspective on this issue is provided by Blake (2001), for whom both the gain to the perpetrator and the harmful effects of selective victimization are equally important in understanding hate crimes. However, whereas the latter implies a broad definition of hate

enhancement derived in Section 2. It is noteworthy that HCLs typically protect groups (such as racial minorities) against which there is a long history of prejudice. Such a history often entails that hostility towards the group is relatively widespread; thus, a relatively large number of potential offenders derive large benefits from attacking members of the group, and hence a relatively large number of offenders can be deterred by including the group within the scope of HCLs. In terms of condition (5), one would expect that, for large values of b, $f_B(b)$ (the density of potential offenders) would be relatively large. This, of course, is precisely one of the conditions required for penalty enhancements to be socially optimal (see the discussion in Section 2 above). In contrast, for a group such as the homeless or the 'geeks', the number of potential bias-motivated offenders is likely to be relatively small, given the absence of a centuries-long tradition of prejudice. If so, there will be less potential for deterrence through penalty enhancements ($f_B(b)$ would be relatively small over the relevant range).

In any event, crimes against groups such as the homeless are more likely to be the result of the lower *direct* costs (in terms of the likelihood of resistance and so forth) of such crimes (and the consequently higher net benefit), rather than from higher gross benefits due to the victims' group affiliation *per se*. The Federal sentencing guidelines (and the sentencing practices of many states) accommodate such cases by requiring enhanced punishment of crimes against especially vulnerable victims, independently of HCLs. Thus, HCLs may be both unwarranted and unnecessary for groups such as the homeless.

Secondly, consider the argument in Section 4 concerning the social costs of victimization avoidance activity. In addition to having faced a long history of prejudice, groups protected by HCLs are usually defined by characteristics that are immutable (such as race or ancestry), or at least are very costly to change or disguise, because they constitute essential aspects of members' identities. A member of such a minority faced with the prospect of victimization by bias-motivated crime can only respond by avoiding members of the dominant group A, whereas members of groups such as the homeless or the 'geeks' can adjust along a number of dimensions, for instance, by 'passing' as members of the dominant group.[21] The latter are therefore not forced to forego as many trading opportunities with As, so that the social losses from victimization avoidance activity are likely to be lower. Hence, there is less need for penalty enhancements as a means of reducing the losses from victimization avoidance activity.

Finally, note that the fairness concerns raised in Section 3 are likely to be especially pertinent when groups are defined by immutable characteristics, or when they have experienced a long history of prejudice. This constitutes an additional reason why such groups may warrant protection through HCLs. The

crime, the former is more useful in explaining the relatively narrow definition adopted by most HCLs. Thus, Blake argues that violence against the homeless or the 'geeks' does not incur enhanced penalties, not because it is necessarily less harmful than racial attacks, but because the victims are not perceived as belonging to a well-identified group.

[21] We do not mean to suggest that it is fair for such groups to be forced to disguise their identity in order to avoid victimization; rather, we are simply pointing out that such a group has more options in responding to the threat of bias-motivated crime.

general point here is that the characteristics of the groups that are included within the scope of the typical HCL closely track those that would be expected from the conditions for the social optimality of penalty enhancements that we have derived. This suggests that HCLs can be explained with reference to the social welfare maximizing choice of sanctions, rather than to interest group pressures. In particular, efficiency-based explanations for HCLs should not be discounted simply because not all groups that are targets of bias-motivated crime are included within their purview. However, it should be remembered that our examination of this issue is of a preliminary nature, and it is likely that both factors play some role in the real world; there is thus a need for further research that compares the efficiency explanation for HCLs with the rent-seeking approach.

6 Conclusion

The issue of bias-motivated crimes against minorities has become an important issue in criminal law and legal scholarship. In this paper, we have developed an economic framework to analyze penalty enhancements for hate crimes. We have generalized the standard economic model of crime to allow for the possibility that there are different groups of potential victims, and that potential offenders may derive different benefits from crimes against each group. While beginning with the assumption that the harm to an individual victim of a hate crime is the same as that to the victim of an identical non-hate crime, we have shown that the social harm that results from a pattern of discriminatory selection of victims can exceed that from a pattern of crimes where targets are randomly chosen. This conclusion follows either if there exists a social loss from disparities in the victimization probabilities of different groups (due to fairness concerns), or if it is assumed that potential victims have the opportunity to undertake socially costly avoidance activities. In particular, penalty enhancements can reduce the incentives for avoidance activity, and thereby protect the networks of profitable interactions that link members of different groups. We also argue that, while only a subset of groups subject to bias-motivated crime are included within the scope of hate crime laws, the characteristics of those groups that are included are such that it is especially likely that the conditions for the social optimality of penalty enhancement are satisfied.

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