CITIZEN RIGHTS AND THE COST

OF LAW ENFORCEMENT

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There is an inherent tension between the idea that individuals have
certain inalienable (natural) rights and the economist's postulate that
the rate of utilization of anything whose production requires scarce
resources must be limited by considerations of opportunity cost. Remarks
about rights to life, liberty, health, justice and the like are readily
inserted into political pronouncements, legislative preambles and court
decisions, but they (should) cause economists to raise questions about
costs and quantities.

Unfortunately, neither in ordinary language nor in the jargon of
moral philosophy can such ultimate desiderata as liberty and justice be
related to costs or quantities. Hence in the first section we sketch a model
of social choice in which the necessary relationships can be defined. In
section II, we give instances where, despite protestations to the contrary,
the Law Enforcement System (LES) has made de facto reductions of citizen
rights (liberties) in order to increase the efficiency of law enforcement.
The final section considers some of the normative implications suggested
by the positive arguments of section II.

I. The Tradeoff Between Citizen Rights and the Efficiency of LES

For the purpose of this paper, I shall consider the concept of an
individual's "right" to do something or other to be the denial of the
propriety of the state taking action to reduce his utility if he exercises
said right. Thus an individual's right of freedom of speech is the denial

of the propriety of the state's visiting any punishment upon him because

of his exercising said right to (protected) speech.[1]   An individual may

also have, or be granted, rights to receive certain benefits from the

state; e.g., a right to some minimum level of income or of health care.

The state is not powerless to infringe the rights of the individual.

Obviously, the contrary is true when all branches of government agree

to the infringement. Indeed, much discussion about the rights of citizens

reflects concern that the government might infringe them. Consequently,

the definition of citizen rights against the state must run in terms of

moral rather than positive limits upon the state's ability to command or

forbid actions of individuals. In the context of this paper, citizen

rights are defined as constraints upon the technology LES may employ in

pursuit of its objectives. For example, the right of an individual to

freedom from unreasonable search limits the ability of the state to use

information gathered as a result of unlawful entry as evidence, much as

would technological incapacity to acquire the information.[2]

Considering LES to be engaged in a process of constrained optimiza-

tion, its activities are limited by the rights of its citizens as well as

by technology. For our particular purpose, it is convenient to assume that

the sole objective of LES is the repression of a particular type of crime,

for example street crime. For simplicity assume that the production function

of LES is completely separable from that of all other activities of the

government and of all households and firms in the economy.

Assume, initially, that the utility (objective) function of the

director of LES contains only one argument, an inverse of a (valid) index

of the extent of street crime. Also assume that all human agents employed

by LES are similarly motivated so long as they remain in this employment.[3]

All prices and tax rates, both of inputs and outputs, are parameters for the director of LES whose operations are determined by his budget, B, and by the technology for combatting street crime. B is discussed below and the technology is determined by (2).

$$U = f(Y, W, R, I) \tag{1}$$

$$W \equiv Y + B \tag{1a}$$

$$U = f^*(B, R, I) \tag{1b}$$

$$F(I, S, R, B) = 0 \tag{2}$$

$$F^*(I, B, R) = 0 \tag{2a}$$

The arguments of (2) are B; the inverse index of street crime, I; S, the supply of street crime, and a vector of citizen rights, R, of which R_j is a typical element. As will be seen, the higher the level of R_j, other elements of R the same, the more rights citizens have against the state and the more restricted are the procedures LES can use to detect and repress street crime. That is, citizen rights limit the technological choices available to LES in that an increase in R_j, ceteris paribus, will be associated with a lower level of I (more street crime). Similarly, greater levels of S are (ceteris paribus) associated with lower levels of I.

Equation (1) is a citizen's utility or personal choice function over alternative states of the world. In (1), W represents wealth, including human capital. That part of W that is used publicly or privately to produce services other than repression of street crime is designated as Y. Wealth used to repress street crime is designated as B. I is the inverse index of street crime, and R is citizen rights.[4]

(1) is not an **aggregate** social welfare function. It should be

interpreted as expressing the preference ordering over alternative states

of the world of a more or less typical citizen <u>who</u> <u>does</u> <u>not</u> <u>expect</u> <u>to</u> <u>commit</u>
<u>any</u> <u>street</u> <u>crimes</u>.[5]   In effect, (1) is the preference function of an advisor

to LES who prefaces his remarks by saying "this reflects my preferences,

are yours very different?" Whenever the answer is affirmative, we must

consider as many variants of (1) as there are distinguishable preference

orderings.

In principle, where there is great diversity of preference orderings,

there could be a distinct variant of (1) for each individual. In this event,

the interest of an argument such as is offered here, which presumes a common

set of preferences, would disappear. Obviously, I believe the preferences

reflected in the argument of this paper are widely shared among law abiding

citizens.

$$s_g = \phi_g(w_c, W, w_i, u_c', T) \quad i \neq c \tag{3}$$

$$S = \Sigma s_g \tag{4}$$

Now let us consider the supply of street crime, s_g, determined by

(3). For each individual, s_g is defined as the utility maximizing quantity

of time devoted to this activity, the choice variables being time spent

in various possible activities, 1, 2 --- k. Each activity (except street

crime) is assumed to have a sure time rate of pecuniary reward, w_i, if it

involves the sale of labor services; or to yield a sure time rate of mar-

ginal utility, u_h',[6] if it is performed within the household. (For all

activities performed in positive quantities, utility maximization requires

that $w_i + \frac{\partial u}{\partial x_i} = u_h'$.)

Street crime has an expected pecuniary return per hour, w_i, which

increases with per capita wealth and diminishes with the expected punishment

per hour devoted to street crime. It is assumed that the probability of

apprehension per hour of activity is determined by the transformation function,

(2), given R and B.[7] It is also assumed that the expected loss of utility

conditional upon apprehension, is determined as part of R.

That is, R is a vector some elements of which, R_1, reflect the rights

of accused (but unconvicted) persons. Other elements of R, R_2, reflect the

rights of convicted persons. Given the circumstances of apprehension, R_1

determines the probability of conviction; given conviction, R_2 determines the

expected sentence. (N.B. Assuming R to have R_m elements, $R_m \geqslant R_1 + R_2$.)

Assume that the probability of apprehension per hour of street crime is

determined by B and R_3 (the rights that inhibit apprehension). Then the

reduction in expected utility (because of punishment) resulting from an

additional hour devoted to street crime, u_c', will also be determined. The

(expected) marginal utility of minutes per time interval devoted to street

crime will be

$$\frac{du}{dx_c} = w_c \frac{\partial u}{\partial y} + u_c' + \frac{\partial u}{\partial x_c} \quad ; \quad u_c' < 0 . \quad [8]$$

The gth individual's supply of street crime, s_g, is given by (3) where

$\phi_{w_c}' > 0$, $\phi_{w_i}' < 0$, $\phi_W' < 0$, $\phi_{u_c'}' < 0$ and $\phi_T' > 0$; i.e., ceteris paribus, the

supply of street crime (hours per week) increases with the return per hour

spent at street crime; decreases with the hourly wage rate at other activi-

ties, with wealth (it is an inferior activity) and with the marginal (loss)

of expected utility on account of punishment. Finally, it increases with T,

the taste for engaging in street crime, which we treat as exogenous. For

most g, $s_g \equiv 0$, over the relevant ranges of all arguments of (3), but the

aggregate supply, S, is determined by $\sum_{g=1}^{v} s_g$ as indicated by (4).

$$u_c' = \psi(B, R, T) \tag{5}$$

Equation (5) gives the expected loss of utility on account of punishment by LES per additional minute spent at street crime as a function of B, R, and T. $\frac{\partial u_c'}{\partial R} < 0$, because greater citizen rights reduce (1) the probability of apprehension; (2) the probability of conviction, given apprehension, and (3) the degree of punishment, given conviction. $\psi_B' > 0$, as both the probability of apprehension and the probability of conviction, given apprehension, increase with expenditure on enforcement, ceteris paribus. $\psi_T' < 0$, because the probability of apprehension diminishes with the volume of street crime which increases with T, ($\phi_T' > 0$), given B and R.

Consider (1) - (5) as a system determining the resource allocations that will be proposed to the "sovereign" by a citizen-advisor whose utility function is given by (1). His utility, U, increases with total wealth whether the wealth is used to repress street crime or otherwise. Hence, $U_y' > 0$ and $U_B' > 0$.

U is also assumed to increase with R and with I. $U_R' > 0$ may be rationalized in various ways: the simplest is that the greater are citizen rights against the state, the greater is the set of actions an individual may undertake that are lawful; i.e. the greater the number of actions that are permitted without risk of punishment. $U_I' > 0$ is explained above. W and B are related by the identity, (1a). In effect, (1a) divides community wealth, without remainder, into that used to repress street crime, and that used for all other purposes.

(1) is maximized subject to the constraint of (2) which represents the technology of crime repression. (2) relates the possible levels of I

that may be obtained with various allocations of wealth to repression of

street crime (as indicated by B), given R and S. It is assumed that the

resource quanta used in repressing street crime are sufficiently small

so that all factor prices may be treated as parameters in constructing

(2). We ignore the possibility of substituting private protection for pub-

lic activity in repression of street crime; for the immediate purpose,

private protection against crime is assumed exogenous and constant.

Since W plays no active role in our argument, we may as well assume

it constant and, substituting (1a) into (1), derive (1b) which will here-

after serve as our maximand. We assume that B has no effect upon U through

(1); for given W, B operates on U only via its effect on Y in (1a); i.e.

$dB \equiv -dY$, W constant. Because $U_y' > 0$, at any point on (2), W constant,

$U_B' < 0$. R is a vector of paramenters (inversely) related to the efficacy

of B in repressing street crime; i.e. R determines the effect of B upon

I, given S.

The interpretation given to R is that it represents the inverse of

the cost of information about street criminal activities. For simplicity,

it is assumed that all obstacles to apprehension, conviction and (some)

punishment of criminals are the result of LES lack of information. If R

were set sufficiently low (e.g. if every individual had to get specific

permission to leave his house and was required to give a detailed account

of all time spent outside) street crime might be reduced to zero. Conversely,

if R were made great enough (e.g. if no one could ever be punished for

committing an offense unless he confessed, and no inducements or pressure

to confess were permitted) criminal activity might become very great. R

is scaled so that $f_R' > 0$; i.e. greater citizen rights, ceteris paribus,

add to utility. The construction of both (1) and (2) assumes that the prices

of all products and factors are given and independent of the values chosen

for R, B, and I. Similarly, it is assumed that all tax rates, subsidies

and "free"gifts of the government are independent of R, B and I.

Accordingly, for given I and S, there is a tradeoff between R and

B. For example, with increased rights against police interrogation, a

larger number of policemen on the street are required to hold constant the

probability of conviction (the compound probability of apprehension and

of conviction given apprehension) given the offense. But, in order to hold

I constant, it is not sufficient to consider the tradeoff between B and R

alone. For (2) also involves S which, through u_c' and (5), depends upon B,

R and T. Hence, to determine the tradeoff between B and R, I constant, it

is also necessary to fix T.

With given T, we may substitute (5) into (3) and (4) into (2)
yielding (2a).[9] T is an indicator of the willingness of individuals to

engage in street crime given the loss (per offense) in expected utility on

account of possible punishment. Ceteris paribus, greater T will cause

greater S, requiring either greater B, lower R or a combination of both, if

I is not to fall.

Maximizing (1b) subject to (2a) gives us the familiar first order

maximum conditions, (6), for an individual for whom T is sufficiently low

so that $s_g = 0$ for all relevant values of the other exogenous variables,

w_i and W. (I.e. (1b) is assumed to refer to a law abiding citizen.)

Restricting the argument to law abiding citizens is necessary in order to

posit $U_I' > 0$. For individuals who might consider committing some street

crime, given particular values of the exogenous variables, it is not obvious

that U will increase with I. (The implications of this are discussed below,

pp.   .) The three equations of (6) plus (1b) and (2a), five equations

in all, determine the five unknowns, U, λ, B, R and I.

$$f_B^* - \lambda F_B^* = 0$$

$$f_R^* - \lambda F_R^* = 0 \tag{6}$$

$$f_I^* - \lambda F_I^* = 0$$

The implications of the model for the operation of LES can easily be seen from Figure 1 on whose vertical axis we measure B (in dollars) and on whose horizontal axis is measured any one element of R, other elements constant. The I curves indicate increasingly high levels of crime avoidance (low levels of crime) and the constraint, F^*, is constructed on the assumption of the following data: wealth, expenditure on objects other than crime repression, technology for repressing (street) crime, taste for committing crime and relevant prices.

The I curves express the idea that it is possible to attain a given degree of success in repressing criminal activity, given the taste for engaging in such activity, by various combinations of expenditure on LES and restriction of citizen rights. It is possible to save money on law enforcement without suffering more criminal activity, by reducing the rights of individuals against the state. As already indicated the saving may be interpreted as a reduction in the cost to LES of securing relevant information by restricting the range of (lawfully) permitted activities by individuals. In particular, law enforcement activity may be made more efficient by reducing the citizen's rights of privacy.

From one point of view, all that the preceding two paragraphs contain is a recitation of what is implied by cost minimization in the achievement of a specified objective. But from another standpoint, what has been assumed is constitutionally and, some would argue, morally impermissible: i.e. citizen rights are assumed to be choice variables at the discretion of the

state to be balanced against the cost of the resources required to attain

a given degree of crime repression. In the language and Weltanschauung of

(certain types of) Civil Libertarians, the rights of individuals are

absolute--inalienable--and not subject to limitation for any social purpose

whatever. So viewed rights are constraints, subject to which utility is

maximized, and not variables to be manipulated by a social choice maker.[10]

The level of I that a choice maker will select cannot be determined

from figure 1. But in figure 2, I is determined, for given values of W

and R. The vertical axis of figure 2 measures levels of I; the horizontal

axis measures Y, expenditure (both public and private) for all purposes

other than repression of street crime; and the isoquants are conventional

indifference curves giving alternative combinations of I and Y that yield

equal utility. The resource constraint is determined by W, R and T; its

concavity to the origin reflects the increasing marginal cost of producing

higher levels of crime repression by greater expenditure thereupon with given

enforcement techniques; tastes for criminal activities and citizen rights

constant.

In figure 2, optimization occurs at A. Ceteris paribus, if W were

greater, higher levels of both I and Y would be attainable. Similarly, with

better techniques of crime repression, more of both I and Y could be obtained

with given W and R; or given T, W, Y and technique, more I could be obtained

by sacrifice of a given "quantum" of R. In other words, if the social

chooser were not so avid for services other than crime repression he could

have more crime repression at a given level of citizen rights; or more of

rights and services (other than crime repression) if only he would tolerate

more criminal activity. Of course, none of these tradeoffs would be

necessary for attaining higher levels of both I and Y if only the taste for
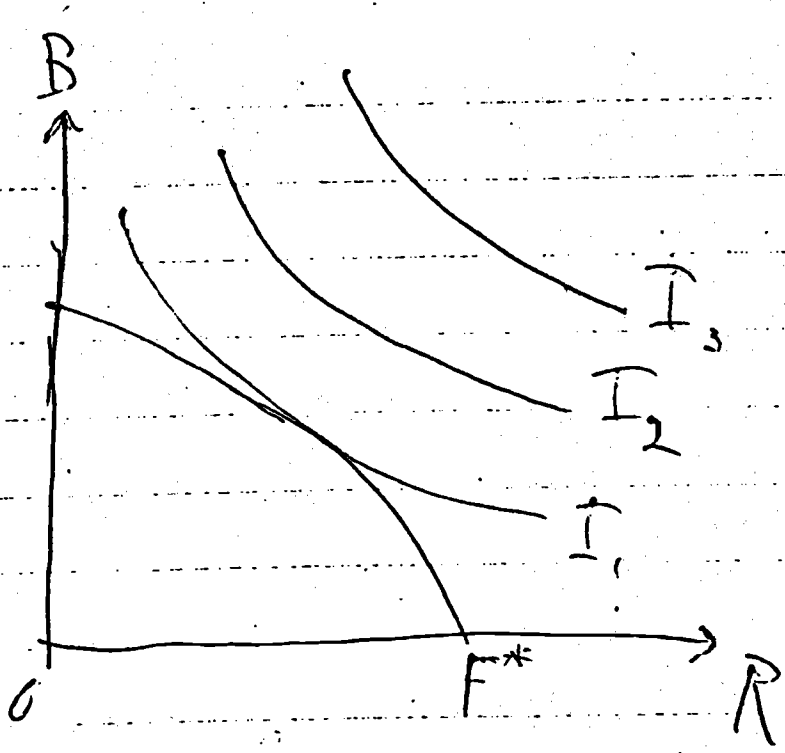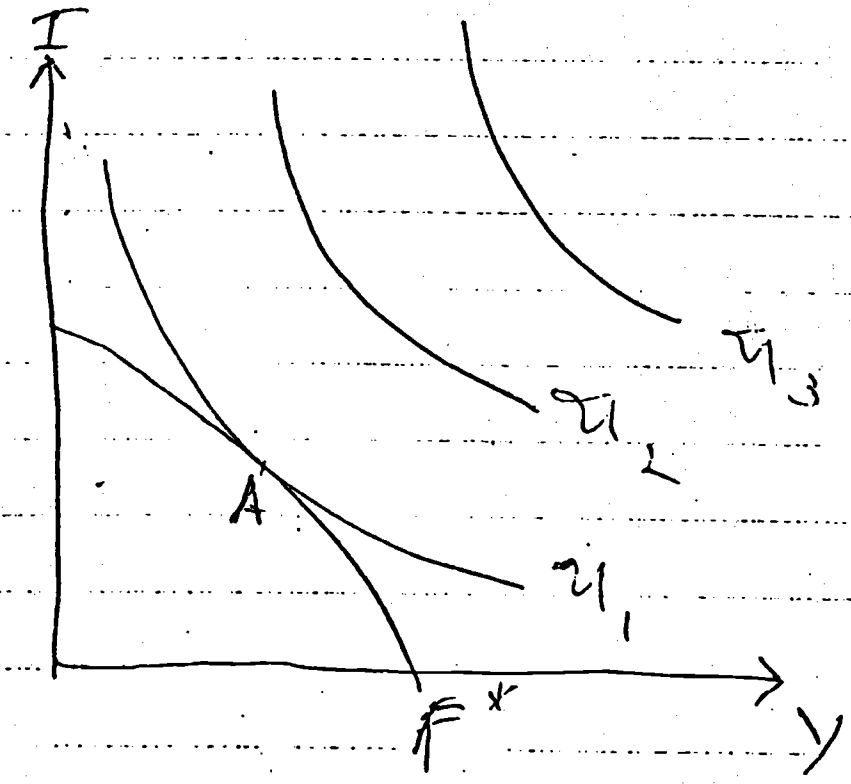
criminal activity were lower.

Figure 1

Figure 2

A few remarks on the interpretation of (1) and/or (1b) may help avoid misunderstanding. Let me reiterate that (1) is a utility function referring to the preference function of a law abiding citizen; i.e. one who does not intend to commit any street crime at any set of values of the exogenous variables that have a non-zero probability of occurring. Consequently, given W and w_i, reducing the expected yield of an hour in street criminal activity (by lowering R) implies redistributing welfare against actual or potential criminals and in favor of law abiders.[11]

As previously remarked (n. 3) the specification of (1) assumes away any question of performance incentives by law enforcement officials. In effect, it is assumed that judges, police officers, correctional officials, etc., all behave as prescribed by a detailed set of written rules which are in accord with the utility function, (1). That is, we assume there is neither "shirking" nor over-zealousness by the officials of LES.

Oviously, this assumption will never hold, literally, and it is made only to avoid distracting complications. However, the assumption is not without important consequences. One (good) reason why Civil Libertarians have been prone (in effect) to insist upon very large savings in B as recompense for small decreases in R is their distrust of police motivation. That is, they profess to believe that out of indolence or hostility, police officers will use discretion granted them by a low R unnecessarily to reduce the utility of citizens (law abiding and otherwise) below what is necessary to attain a given level of I.[12]

To the extent that one is concerned with this possibility, his speci- fication of f (or f^*) in (1) will vary. Thus, an extreme libertarian could readily accept our formulation of the problem but set R very high and make it very inelastic with respect to variations in the marginal rate of trans-

formation between R and B.   The argument of section II is designed to

indicate that there has been, in fact, an appreciable willingness to sub-

stitute R for B in the face of changes in the tradeoff between them, but

this need not convince those who profoundly distrust the personnel of LES.

II.   Citizen Rights, Expenditure on LES and Criminal Activity:

A Positive View

Let us assume that if LES had complete information on the activities

of every person in the community at every moment he was outside his

domicile, street crime would be reduced to zero. That is, if everyone had

to submit a detailed and verified minute-by-minute account of his activities

from the moment he left his domicile until the moment he returned, the

probability of committing an undetected street crime would be zero, and the

supply would also be reduced to zero.   B given, I would then be raised

to its conceptual upper limit, and R reduced to its lower limit; i.e. street

crime would be eliminated but at the expense of virtually eliminating the

citizen's right of privacy once he left his home.

In order for the citizen to account for all his extra-domiciliary

time to the satisfaction of LES, he would either have to hire approved

witnesses to accompany him wherever he went—a very expensive matter-or

restrict his movements to areas where they could be monitored more economically

(e.g. by television camera). But if he were to confine himself to certain

well policed or well lighted areas, where the risk that street crime would

be committed was minimal, LES might be able (without adverse effects on I)

to relieve him of the obligation to provide a verified log of his movements.

The various alternative sets of requirements on individuals to report their

street movements may be thought of as elements of the (alternative) sets of
inputs that might be used to produce given levels of I. Among the other
(input) elements would be, for example, police surveillance and street
lights, increases in either of which entail increases in B.

As suggested above, I may be assumed to vary inversely with LES infor-
mation. This information reaches its conceptual maximum when the location
of every individual at every moment of time (spent outside his domicile) is
known with certainty. This upper limit to information may be approached
either by (a) restricting the possible movements of individuals and/or
increasing the requirements for self-reporting (alternative ways of reducing
R) or by (b) increasing the number of policemen who observe and report on
street activity (increasing B).

It is not, I think, descriptively accurate to assume that societies
(or their LES') act to maintain fixed values of I in the face of variations
in T, W, etc. De facto, sharp increases in T (or decreases in W) are likely
to be accompanied by increases in the societally tolerated level of I.
Moreover, the interrelated effects upon I, B and R that would result from
changes in any (or all) of the above exogenous variables are not well known
which necessarily inhibit any institutional arrangements that would involve
explicit variations in B and R in response to changes in their relative
efficiency prices. Nevertheless, I suggest that as a first approximation it
is useful to treat B and R as substitute inputs (in the production of I),
whose relative quantities vary in a conventional manner in response to
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changes in their relative prices.

That is, where the utility of preventing a particular crime is very
great, and the marginal cost of "equally effective" police surveillance
prohibitive, there is a tendency to reduce R in lieu of indefinitely increasing

B. For instance, when highly placed government officials (native or foreign)

travel down a public thoroughfare, normal use and access to said street is

restricted--in addition to greater use of police--in order to provide adequate

protection. Such temporary reduction of R are usually accepted without

complaint, though the principle would be unacceptable were it applied generall;

Another example to the same point occurred in Quebec in October 1970,

when the Minister of Labor of the Province of Quebec and a British Trade

Representative were kidnapped and held for ransom by French-Canadian

revolutionaries. In what proved to be a vain hope of finding the kidnapped

persons before they were murdered, the Prime Minister of Canada, Pierre

Trudeau, invoked emergency powers that vastly extended normal police rights

of search, rights to restrict movement of citizens from place to place, etc.[15]

More generally, in situations where riots or natural disasters (such

as earthquakes, major fires and the like), civil wars or foreign invasions

have occurred, or are in immediate prospect, martial law or an approximation

thereto frequently has been imposed.[16]   In all of these situations the

rationale of government behavior is that there has been (or is about to be)

a transitory disturbance to normal communications that reduces the efficacy

of marginal expenditure on LES to apprehend offenders. Hence, the expected

return per hour devoted to street crime, and consequently the quantity

supplied, would increase unless offsetting measures were taken.

The very events that lower the crime-reducing efficacy of expenditure

on LES also make it difficult quickly to remedy matters--prevent I from

falling sharply--by increasing B. That is, in circumstances such as the above

it is (temporarily) difficult to hire additional policemen, to provide them

with vehicles, to assemble trial facilities, etc. Moreover, in many of these

situations, there is a breakdown of normal private protection (e.g. windows

are broken, possessions are left unguarded in public places, protective

structures are devastated) which further increases the return to criminal

activity. As a result, in the short run there is a tendency to meet an

increased demand for crime repression by reducing R as well as by increasing

B.

This might suggest the hypothesis that although R is rigid (more or

less) in the long run, it varies to offset transitory variations in the

parameters of F^* so as to limit variations in I. Indeed, I would conjecture

that R is less volatile in the long run than in the short. However, I would

not concede that the long run value of R is an institutional constant,

independent of the relative cost-effectiveness of R and B in repressing

crime. Consider the following cases: (1) the increase in airplane hijack-

ings during the past few years has led to an appreciable curtailment of the

right of privacy of anyone wishing to board a commercial airplane. Now, all

travelers must submit to a search of their hand luggage and to an electronic

search of their persons to detect metal objects. Obviously, the rationale

of this procedure is the very high cost of submitting to hijackers' demands.

This example of search without a warrant appears likely to continue

indefinitely.

(2) The practice of customs inspection (of citizens as well as

foreigners) is long-standing and virtually unchallenged. Yet it is an invasion

of privacy (without search warrant) that would not be countenanced in connec-

tion with intra-country movement. The rationale for this difference between

official search behavior at ports of entry into a country, and elsewhere,

must lie in the belief that the cost of detecting violations of customs

regulations at any time after merchandise enters a country is enough greater

than at the time of entry to justify the necessary reduction in R.

(3) The insitution of the curfew is--or was-- of long-standing use
and served to limit the nocturnal activities of individuals. Often, the
curfew has been differentially applied among individuals distinguished by
age and (less frequently) race and sex with the apparent purpose of differ-
entially reducing the rights of those judged more likely to commit various
species of crimes. [17]   Vagrancy laws, recently subjected to much attack in
the courts, were similarly motivated; i.e. vagrants were judged more likely
to commit crimes than others. [18]

(4) The terms on which bail is offered to individuals accused of
crimes vary inversely both with the probability that they will appear for
trial (i.e. they vary inversely with the expected cost of preventing the
crime of fleeing justice) and with the probability that they will commit
further offenses prior to trial. [19]   In other words, the rights of accused
persons are varied to limit the cost to LES of keeping I below a certain
limit. Similar observations apply to the sentencing and paroling persons
convicted of crimes.

(5) Prior to about 1960, "honor codes" served as methods of enforcing
regulations in educational institutions, especially as regards cheating on
examinations. They served both to limit the cost of "law enforcement" to
college administrations and to permit a large degree of citizen (student)
rights without causing an unacceptably high level of violations. These
codes apparently worked reasonably well so long as T did not exceed the levels
customary in academic communities prior to 1960. However, for whatever
reason, there has been a sharp rise in T since then which has greatly reduced
the level of I attainable under an honor code and forced adoptions of more
costly methods (e.g. proctoring) of policing examinations.

Another example to the same point is the adoption of a policy
requiring all users of college libraries to submit to inspection of books,

brief cases, etc. being taken from the building. On many campuses, this
policy is of relatively recent origin and   apparently resulted from a
sharp increase in book thefts. While this policy entails an increase in
pecuniary outlay (e.g. for inspectors), its important consequence is that
it involves a reduction in rights of privacy--right of library users to
avoid search without a warrant--as a response to an increase in I resulting
from an increase in T.[20]

This list is intended as illustrative rather than exhaustive. Its
purpose is simply to suggest to the reader that variation in individual
rights of privacy against the state (among situations, locations, and cate-
gories of individuals) may be interpreted as the consequence of differences
in the cost-effectiveness of dollars spent on LES. Or, to make the same
point in different words, political and legal institutions act, however
uncertainly, to substitute reductions in R for increases in B in response
to (long run) differences in their cost-effectiveness in raising I.

III. Some Normative Implications of the Argument

Societies tend in fact to substitute limitations upon individual rights
for expenditure upon LES as a response to differences (or changes) in the
cost effectiveness of dollars spent on R and B. But this implies nothing as
to what the relation between B and R, I constant, should be. Is cannot imply
ought. Yet, if there has been a tendency for the LES to treat B and R as
substitutes in societies usually considered as free, then it is not opposite
to argue that to use variations in R as a means to limit I, B constant, is
flirting with totalitarianism.

It will not be seriously denied that there is a strong current in

recent legal and philosophical thinking, paralleling recent Supreme Court decisions, to the effect that the rights of individuals are absolute and not limited by "needs of society." However, if the argument of section II is valid, then what we have considered hitherto as free societies have operated with combinations of R and B varying more or less in response to changes in the relative prices of inputs requisite to achieving acceptable levels of I. Attempts to set R with reference solely to ethical considerations might well result in completely unacceptable combinations of B and I. What has been meant by a "free society under law" is not definable in terms of R alone, but in terms of combinations of R, B and I. Given F^*, an ethical determination of R may be simply incompatible with the utility function, (1b).

The normative question of choice among alternative combinations of I, B and R is frequently obscured by reluctance to face up to the moral implications of a subjective tradeoff between B and R, I constant. This tradeoff may be interpreted as the shadow price of citizen rights in terms of dollars used to support LES. Many people like to believe that their own subjective tradeoff between these two variables is infinite: i.e. that in their utility function "freedom," or certain components thereof, have no price.

The attitude that freedom, the elements of the Bill of Rights, etc. are unconditioned by circumstances and (surely) not by the budgetary exigencies of LES, is an important part of those civic homilies which may not be challenged, however much they may be flouted. However, I contend not only that these homilies have been flouted in fact, but that in principle they may be counter-productive, and that a higher level of U in (1b) might be attainable if LES were not forced to pay lip service to an excessively simplistic code of politico-legal morals.

For example, given a court system whose speed of operation is unre-

sponsive to the back-log of cases awaiting trial combined with the right to

bail, a rise in street crime is likely to lead to an unusually large number

of street criminals at large, and therefore to a higher I.[21]   One possible

method of preventing such an increase in I would be to limit access to bail,

possibly compensating those imprisoned before trial but later found innocent.

Whether this method of reducing I is adopted should depend upon (a) the

marginal impact on I of reducing the number of untried persons free on bail,

and (b) the marginal effect on U of reducing I, but (simultaneously) impri-

soning some innocent individuals. But it is difficult for legislatures

explicitly to consider the costs and benefits of pretrial imprisonment,

whatever they may be, because under present court rulings the constitutional

rights of the accused to bail may not be subordinated to the social objective

of reducing crime.

In reality, as Landes' evidence indicates, judges use their discre-

tionary power in setting bail to limit I.[22]   However, they must do this

surreptitiously, and occasionally the bail originally set has been reduced

by higher courts on the grounds that bail was excessive for the purpose of

insuring attendance at the trial. Surely, there would be greater clarity

concerning the nature and function of LES, and possibly greater efficiency in

its operation, were it possible explicitly to consider (e.g. in the bail

determination process) the social utility of confining the accused, as well

as the probability that he will appear for trial.

As I have already argued, whatever their rhetoric, the courts have

tended to recognize and balance societal objectives against individual

rights in deciding what legislative restrictions on the latter are consti-

tutionally permissible. Despite the recent concern with First Amendment

rights, the Holmesian dictum against the unlimited right to cry "Fire" has

not been seriously disputed. The real questions are how to strike the balance

among competing desiderata and who should strike it; the courts, legislature
or some interaction of the two.[23]

To interpret citizen rights as absolute restraints on LES action is
in effect to deny, or seek to deny, courts the authority to concede to the
legislature discretion in choosing among sets of R, B and I.[24]   A valid
rationale for thus limiting the discretion of judges in maintaining citizen
rights derives from distrust of public officials, however chosen. Theoreti-
cally, certain rights of citizens are held to be inviolable. In practice,
as we have seen, time and circumstance causes legislatures to alter these
rights, and the courts to acquiesce in the alternations.

De facto, the consitutional guarantees of citizen rights do not
absolutely prohibit their alteration, but rather impose a kind of tax (in
time and trouble) on actions that alter R. It is the function of the courts
(somehow) to levy and collect this quasi-tax: they perform this function
variously by insisting that legislation limiting R be shown necessary to
achieve a legitimate objective of government; by insisting that R be restrict
no more than is required to achieve an (legitimate) objective; by engaging
in "rear-guard" delaying type actions to protect particular rights, though
ultimately yielding in the face of persistent legislative attempts to limit
them, etc.

The insitution of judicial review is not the only method of making
certain types of legislative decisions especially costly. Requirements for
more than bare majorities (e.g. 2/3 or 3/4 of all legislators voting) as a
condition for enacting certain types of laws; a requirement for two separate
votes with a minimum time interval between them; a requirement for a referen-
dum in addition to legislative enactment, and many other constitutional
provisions serve to impede (tax) the adoption of certain types of legislative
measures, as well as invalidation through judicial review.

In other words, protection of citizen rights against infringement is
merely one method by which citizen-delegators (employers) of control over
public resources attempt to hedge against the risk that governmental officials
(agents) will violate the conditions upon which this control is delegated.[25]
The reason for such hedging is that, barring flukes, the interaction of the
utility function of the agent and the incentive structure under which he
operates will lead to behavior different from that desired by the delegators.
Thus, members of LES may attempt to make their jobs easier than their con-
tracts imply (e.g. shirk their tasks) by reducing R below what was anticipated
by those who delegated authority to LES.[26]   Moreover, the utility loss from
such shirking may be very large; the rights lost or diminshed may have great
utility to citizens and the cost of regaining a right abridged by a more
or less casual governmental decision may be very great.

More generally, it is not only citizen rights that may be protected
in this manner, but the rights of any employer or delegator against the
actions of an agent who exceeds his authority; i.e. one who acts ultra vires.
In the case of delegation to private parties, appeal may be made to the
courts to enforce respect for the terms of delegation. In many cases,
delegation of power to public bodies, even legislatures, may also be hedged
by specific limitations (e.g. total debt may not exceed a certain limit
unless explicitly authorized) that can be enforced by appeal to the courts.
But, in some cases--in particular, the operation of LES, the cost of writing
specific limits to the authority of legislatures is too great (i.e. technical
capacity is too limited) and it is necessary that the courts interpret
delegative intent. Implicitly, this is accomplished by the courts operating
on a utility function such as (1) and proscribing legislative actions that
reduce R below what was intended by the delegators.

The actual process by which the courts protect citizen rights might

well be, on average, a reasonable approximation to one of minimizing the

loss of expected utility from "misbehavior" of LES. However, the public

rationalization of this process is very different, often being expressed as

though citizen rights--especially those related to freedom of speech, of

assembly and right of political opposition--ought to be immutable regardless

of practical consequences.[27]   I disagree with this interpretation of citizen

rights.

FOOTNOTES

[1]It would not usually be considered a violation of the right to freedom of speech for the government to bribe an individual to speak, or refrain from speaking in some particular way, although such bribery might well be considered bad public policy. However, if the government were to impose very heavy wealth taxes whose incidence was independent of speech, and used the revenue to purchase desired speech (or silence), a strong interaction between fiscal action and freedom of speech would arise that might cause difficulty for the definition (of freedom of speech) offered in the text. However, for the purpose of this paper, it is unnecessary to consider this complication.

[2]This type of citizen right _against_ the _state_ is not the sole or neces- sarily the most important type of right an individual may have. His property rights, primarily against other individuals, are also of great importance, but are not relevant to the subject of this paper.

[3]This assumption is made to avoid the problem of specifying the perfor- mance incentives offered law enforcement officials. The incentive problem is discussed by Becker and Stigler [1], and below, p. 13.

[4]Formally, B is defined in (1) as the capitalized budget of LES. At various places in the text, B will be treated as the time rate of expenditure of LES. However, this dimensional ambiguity in no way affects the argument.

[5]Obviously, rational individuals contemplating the commission of one or more street crimes will have different preferences for the allocation of public resources, as between LES and other uses, than those who do not expect ever to commit such acts. Our argument is directed solely to members of this latter class of (law abiding) citizens.

[6]Assume a given individual, g, to have a utility function

$$u = u(y, C, x_1, ---x_q),$$

which he maximizes subject to a time constraint $t = x_1 + --- x_q$. $y = P + w_1 x_1 + --- = w_j x_j$, where y is pecuniary income which consists of property income, P, plus wages for labor market activities, 1 through j. $w_1 --- w_j$ are the wage rates per unit of time spent at each of these activities and $x_1 --- x_j$ are the respective amounts of time spent on them. $q > j$, indicating that some uses of time are associated with no pecuniary compensation; i.e. are performed within the household.

C is expected (total punishment for all street crime committed by the individual during the period under discussion. $C = C(x_c, B, R)$, $C'_{x_c} > 0$, $C'_B > 0$ and $C'_R < 0$. Whether measured in dollars fined, days spent in jail, or however, expected punishment increases with time devoted to criminal activity; it also increases with expenditure on LES and diminishes with citizen rights, R. Because of C,

$$\frac{du}{dx_c} = \frac{\partial u}{\partial x_c} + \frac{\partial u}{\partial C} C'_{x_c} \quad \text{where} \quad \frac{\partial u}{\partial C} < 0$$

A complete analysis of the problem would require inclusion of quantities of commodities consumed as arguments of U and addition of a second constraint (reflecting wealth). However, this generalization would not be to the present purpose and consequently I operate with only one constraint

and no consumption activities in the utility function.

Maximizing u subject to t, we obtain the first order condition for all non-zero x_h:

$$u'_h = \frac{\partial u}{\partial x_h} - \mu \frac{\partial t}{\partial x_h} = 0 \quad (h = j + 1 \text{ --- } q), \text{ and}$$

$$\frac{\partial u}{\partial x_i} + \frac{\partial u}{\partial y} w_i - \mu \frac{\partial t}{\partial x_i} = 0 \quad (i = 1 \text{ --- } j).$$

Since $\frac{\partial t}{\partial x_i} = -\sum_{i \neq h} \frac{\partial t}{\partial x_h}$ (a unit of time diverted to one activity must come from others), $\frac{\partial u}{\partial x_i} + \frac{\partial u}{\partial y} w_i = -\mu \sum_{i \neq h} \frac{\partial u}{\partial x_a}$ for all non-zero x's except x_c, activity devoted to street crime. For x_c,

$$\frac{du}{dx_c} = w_c \frac{\partial u}{\partial y_c} + u'_c + \frac{\partial u}{\partial x_c} = \mu \frac{\partial t}{\partial x_c}$$

where w_c is the mathematically expected rate of pecuniary return per time unit devoted to crime and $u'_c = \frac{\partial u}{\partial C} \frac{\partial C}{\partial x_c}$, is the expected loss of utility on account of punishment per time unit in street crime. s_g is defined as that value of x_c for which the maximum conditions are satisfied.

Specification makes u depend solely upon the expected values and not upon the higher moments of the probability distributions of the return to any of the arguments of the utility function. I.e. u is assumed to refer to a risk neutral individual. This assumption could be relaxed without altering anything important in the argument, but it is an expository convenience.

[7]It is not necessary for the present purpose to analyze the determinants of w_c. It may be reasonable to suppose that the expected return per holdup

increases with per capita wealth, but the effect of increased per capita

wealth on the provision of self-protection might conceivably outweigh the

direct effect of per capita wealth. In any case, nothing in the paper

depends upon the direction of the wealth effect on the return to a criminal

act.

Expected punishment per criminal act is determined by B and R, but

expected punishment per hour spent in criminal activity is not. For

simplicity, therefore, posit a fixed number of criminal acts per hour.

[8]That is, R is defined as including (1) the rights of apprehended

persons to due process and (2) of convicted persons to "appropriate and

equitable" treatment in the sentencing and administration of punishment.

Hence, a complete specification of R, given B and the transformation func-

tion, determines the expected probability of apprehension, the expected

probability of conviction if apprehended, and the expected utility loss, if

convicted.

[9]Substituting (5) into (3) gives

$$s_g = \phi_g \ [w_c, \ W, \ w_i, \ \psi(B,R,T), \ T]$$

and substituting (4) into (2) yields

$$F \left\{ I, \ \sum_g \phi_g[w_c, \ W, \ w_i, \ \psi(B, \ R, \ T) \ T] \ R, \ B \right\} = 0, \ \text{or}$$

$$F^* \ (I, \ B, \ R) = 0 \ \text{ for given } w_c, \ W, \ w_i, \ \text{and } T.$$

[10]The deep philosophical issue that underlies these two ways of analyzing

the role of citizen rights in a model of social choice cannot be settled by

considerations of analytical convenience. However, considering possible

tradeoffs between citizen rights and expenditure on law enforcement suggests
a viewpoint on rights that will appear intriguing to some and outrageous
to others.

[11]For example, law abiders would (personally) rather have less rights
and more expenditure by LES than potential criminals. In a very interesting
paper, Harris [6] stresses the difference in the relative importance
attached to reducing crime vis-a-vis avoiding erroneous convictions by
persons who are more and those who are less likely to be accused of crimes.
Harris follows the approach of Becker's pioneering work [7] in making the
objective function of LES a social loss function from criminal activity and
from attempts to repress crime. This loss function is analogous to the
utility function (1). While I prefer my formulation to that of Becker and
Harris, the differences are not important in the present context.

Harris' argument, in effect, is concerned with one type of right; the
right(s) of falsely accused persons. The approach of this paper deals
with rights more generally, and also considers them from a somewhat different
perspective than does Harris.

[12]I am indebted to Richard Auster for discussion on this point.

[13]By verified, I mean attested to by witnesses acceptable to LES. It
is to be emphasized that this is an assumption made for exposition only, and
that in some cases it may be contrary to fact. For example, if the cost of
enforcing the reporting requirement were very great, all that such a
requirement might accomplish would be to insure that street crime and failure
to report movements would be almost perfectly correlated. For the sake of
the argument, I abstract from this possibility. I am indebted to William
Landes for a discussion of this point.

[14]That is, it is assumed that the substitution effect of a change in relative prices dominates the wealth effect if either input is inferior.

[15]See the New York Times, October 5-18, 1970.

[16]See for example Hirschleifer [2], Dacy and Kunreuther [3], Douty [4].

[17][8] contains a good discussion of the history, rationale and administration of curfew laws. On p. 102 it reports the outcome of a survey of 109 (large) cities during the summer of 1957 as to the status of their curfew regulations, if any. Of the 109 cities surveyed, 103 responded, and of these 55 per cent had some sort of curfew regulation applying mainly to juveniles. The vigor with which these ordinances were enforced typically reflected the view of the enforcement authorities as to the need for reducing street crime and the contribution of the curfew to that objective.

[18]There is a substantial literature on the role and purpose of vagrancy laws as instruments to reduce the incidence of crime. Two recent discussions are [9] and [10].

[19]This assumes that the probability that an indicted person will commit a further crime before trial is greater than the probability that an unindicted person will do so during the same period. On this point, see Landes [5].

[20]This might be viewed as an example of how private protection increases in response to a rise in T. However, the important point is that citizen rights in quasi-public places (publicly supported universities) are curbed, with the apparent acquiesence of the courts, for the purpose of blunting the effect on I of an increase in T.

[21]This point is well developed by Landes [5].

[22]Op. cit.

[23]One critic has argued that to make R variable would be to increase (individual) uncertainty concerning one's rights which would reduce utility directly (for risk averse individuals) and would also increase the cost of planning future productive activities. However, a rigid R in the face of shifts in exogenous paramenters (T, W, etc.) would not necessarily reduce uncertainty about future utility levels. Consider: the right to assemble may cause only a slight inconvenience to non-participants (because of traffic delay) if the number involved is (say) 5,000. The inconvenience--loss of utility--would be very much greater if the number were 100,000. A judicial policy of minimizing variance of utility from exercise of the right to assemble might well make this right conditional upon the prospective number of persons involved and, especially, upon the prospective loss of utility to third parties.

In other words, a rigid interpretation of citizen rights in the face of changing objective circumstances may lead to variations in utility to affected parties that may exceed the variation arising from a more flexible interpretation. This is not intended as an argument for, or against, flexibility in interpreting citizen rights but only as a caveat against the presumption that judicial rigidity in this context tends to reduce uncertainty On this point, I am indebted to Ben Klein.

[24]Or, more exactly, to deny courts the right to set lower limits to R beneath which the legislature may not reduce R to achieve more favorable combinations of B and I.

[25]It is not descriptively accurate to describe the powers of government as being delegated by individuals, or to specify that the relation of government officials to individuals is akin to that of agents to principals. These assumptions are used here in an "as if" sense to facilitate exposition.

[26]The idea of an agent or an employee shirking his task is expounded at length by Alchian and Demsetz [11], pp.   . It should be noted that the risk of "shirking" by an agent—akin to moral hazard—is only one of many sources of divergence between optimal behavior from the viewpoint either of agent or of principal. Such divergences may arise from any divergence in the optimizing behavior of an agent from that of a principal. Whatever its cause, whenever such a divergence arises, the problem of controlling the agent will arise.

[27]A good example of this point of view is Dworkin [12]. van den Haag [13] gives a trenchant criticism of Dworkin's argument.

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