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## Homogenous social groups

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H O M O G E N O U S  
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Nr. 100

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Diskussionsbeiträge  
des Fachbereichs Wirtschaftswissenschaften  
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## HOMOGENOUS SOCIAL GROUPS

(I Some Remarks on the Economic Relevance of the Analysis of Institutions - II Homogeneity and the Structure of Homogeneous Groups - III The Emergence of the State and the Counter-State - IV Homogeneous Social Groups as Functional Substitutes as well as Complements to Economic and Political Processes)

## I

It is by now widely accepted that social institutions exert a considerable influence on economic activity<sup>(1)</sup> and therefore merit the attention of economists.

While neo-classical economics took these institutions for granted, recent years have seen efforts to integrate them into the theoretical framework of the discipline.<sup>(2)</sup> Recognizing that certain institutions form a precondition for economic activity, recent research has concentrated on the operation of alternative structures and the institutional constraints on economic behavior. - the purpose of this analysis being provision of a comprehensive basis for effective public policy.

In this paper, I tentatively analyze the impact of the homogeneity of groups on both the structures and relationships in which transactions take place.

More specifically, the concept of homogeneity contains a set of conditions which describe properties of institutional relationships which reduce the costs of transactions among group members. The concept of homogeneity (to be defined in section II) serves to integrate such disparate fields as econo-

mic anthropology, Public choice and the economics of delinquency, The purpose of this paper is to introduce the concept of homogeneity so as to give a coherent economic interpretation to apparently contradictory phenomena such as the evolution of a legal system and the emergence of mafia-type organization. This is an attempt to provide a general analytic formulation of what has up until now been either merely described<sup>(3)</sup> or been given a narrow context-specific economic interpretation<sup>(4)</sup>. It is argued that transactions between homogeneous partners tend to be less costly than those between heterogeneous actors. Starting from this simple proposition, the relevance of a guaranteed obligatory social order for a system of voluntary exchange is explored. This is to show extent to which social order is a means of reducing transactions costs, and the extent to which this is due to the homogenization of individual behavior by the imposition of rules of public order. This is followed by a rejection of the assumption implicit in Public Choice literature that the public order is unique. Rather, the social order is viewed as being composed of the different norm-systems which exist in a segmented heterogeneous society consisting of homogeneous groups. This approach serves as a frame of reference for a selective survey of empirical studies which analyze the social function of homogeneous groups as intermediaries in both the market and the political process.

Finally, an abstract characterization of homogeneous groups takes into account the results of both the theoretical analysis and the empirical research reviewed.

II

Homogeneity

Given a society (S) composed of n individuals:

$$(1) \quad (S: i: i=1, \dots, n)$$

Where each individual (i) has available a set of alternative actions which I shall call the individual action set:  $(A_i)$ , where:

$$(2) \quad (A_i: a_i^j: j=1, \dots, m)$$

Then the set of alternatives, or action set open to society (S) as a whole at any given time may be given by the matrix:  $(\underline{A}_S)$ , where:

$$(3) \quad \begin{matrix} a_1^1, a_1^2, \dots, a_1^m \\ a_2^1, a_2^2, \dots, a_2^m \\ \vdots \\ a_n^1, a_n^2, \dots, a_n^m \end{matrix}$$

$$(\underline{A}_S) = \begin{matrix} \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \end{matrix}$$

Then, a homogeneous group may be defined as any group of individuals (G), where (G) is a proper sub-set of the society (S):

$$(4) \quad G \subset S \quad \text{for all } G$$

Where the homogeneity exists as a restriction on

the action sets of the individuals composing that group. Thus, the existence of a homogeneous group action set may be postulated, which forms the outer bound of the action sets of the individuals within that group. Thus:

For all (G), there exists an action set ( $\underline{A}_G$ ), such that:

$$(5) \quad (\underline{A}_G) \subset (\underline{A}_S)$$

and

The individual member of a particular homogeneous group has an action set ( $\underline{A}_{i(G)}$ ), where:

$$(6) \quad (\underline{A}_{i(G)}) \subset (\underline{A}_G)$$

This restriction on the action sets of the individuals within the group, or of the group as a whole may arise as the result of any of a number of possible forces. Two general cases explaining the existence of such a restriction may be where it arises as the result of:

- (a) the imposition (external, or internally by some subset of the group: elite),
- (b) the (tacit) acceptance by the members of a group of ( $\underline{A}_G$ ).

### Prescription

Prescription may be regarded as a special case of the general restriction on the action sets of members of the homogeneous group. Hence, a specific action is prescribed, or indicated for a given circumstance - rather than a range of possible actions. Thus, the already reduced action set of the individual members of a particular group is narrowed down



to only a single element:

$$(7) \quad c_i^x \in \underline{A}_i(G)$$

Where

$$(8) \quad \underline{A}_i(G) = (a_i^x)$$

(Where  $(c_i^x)$  is a circumstance, or stimulus (x), affecting individual (i), who is a member of homogeneous group (G): and  $(a_i^x)$  is the response prescribed under  $(c_i^x)$  for such an individual).

### Features

1. Reduction in Social Costs. The restrictions upon the action set of the members of the homogeneous group implies the potential reduction of social decision costs of the group. Under the assumption that the costs of social decisions are a positive function of the complexity of the set of alternatives, and if this can be measured by the number of alternatives to be sought out and / or considered, a reduction of  $(\underline{A}_S)$  to  $(\underline{A}_G)$  will ceteris paribus reduce the costs of social decision. By social decision costs I mean generally the costs of search, information, considering alternatives, and negotiating agreements. Not all of these vary with the number of alternatives considered, but some obviously do. (5)

2. Modification of the Environment of Individual Decision. The reduction of the action sets reduces uncertainty and therefore increases predictability of individual relationships. Prescription lowers decision costs to zero. Effective prescription

makes the behaviour of any one member of the homogeneous group completely predictable. A functionally specialized communication network lowers the per-unit information costs. This network processes and disseminates information:

- providing an increase in the quantity of information managed and
- increasing the quality by
  - = noise reduction and
  - = increased reliability.

Enforcement. For any given homogeneous group, there exist specialized systems for the enforcement of the restricted action set. These systems act to enforce decisions - both social and individual - and prescriptions especially within the action set. Due to specialization, enforcement within the homogeneous group is potentially less costly and/or more accurate than social enforcement. This in turn reduces the transactions costs arising from deviant behaviour. Consequently, there is a potential reduction of the transactions costs arising from contracting, gathering information and policing<sup>(6)</sup>.

Potential Defects. The rigidity of the homogeneous group structure implies a potential for destabilizing defects, if the group's environment (society) changes, rendering non-considered alternatives relevant for the group as a whole. Relatively high costs may be incurred as a consequence of not taking into account alternatives outside of the restricted action set. There is a potential increase (towards infinity) in

information costs concerning the non-feasible set. The specialization characterizing homogeneous groups can have adverse consequences. Relatively high costs will be incurred in not taking account of the elements outside the restricted set. This may manifest itself in

- low quality of decisions or
- low reliability in relations.<sup>(7)</sup>

### III

It has been long known that the establishment of a system of guaranteed forms of agreement, enforced rules and a singular (non-disputable) attribution of alternative actions to individuals or collectives is a necessary precondition for a system of voluntary exchange.<sup>(8)</sup> Singularly attributed alternative actions constitute 'property rights'. Thus a specified system of legal regulation and social normation is an institutional prerequisite for the effective operation of the market economy.<sup>(9)</sup> Recent discussion among Public Choice theorists has clarified these conditional interrelations<sup>(10)</sup> and explained - among other things - the emergence of the constituted state and the conditions of its existence.<sup>(11)</sup> According to this view, the legal system is a collective good, from which no member of society can be excluded.<sup>(12)</sup>

More specifically, a legal system is a collective good in that:

- (1) It operates effectively as a conflict-resolution procedure, preventing the accumulation of unresolved inter-individual conflict, which can, in the long run, prove to be destructive for society as a whole. This happens by rendering insecure the established system of property rights.
- (2) Secondly, it provides all contracting actors with a scheme of reference on which they can rely in their transactions. The behaviour of all parties to a given transaction becomes predictable due to the homogenization of individual behavior by means of public ruling.<sup>(13)</sup>
- (3) Where the legal rules are non-specific and ineffectively regulate any given transaction, causing conflict, and/or if the outcome of the legal process is not easily predictable (this is the area of forensic process failure); transactors cannot rely on the provision of the public good and will therefore demand a specific solution for their conflict. In this solution the private good effect<sup>(14)</sup> clearly dominates.<sup>(15)</sup>

It may be worth pointing out that the actors in conflict demand a reliable conflict resolution, but this resolution need not necessarily be supplied by the state legal system. Often, decentrally provided social normation will suffice. The analysis of the public good aspects of the legal system combined with a neglect of its private good aspects has induced many Public Choice theorists to consider only one such

system for any given society. The legal system, however, is only one facet of the aforementioned institutional structure. It operates efficiently only to the extent that the heterogeneity of citizens and the complexity of their conflicts can be overcome by recourse to the formalization of rules and conflict resolution procedures.<sup>(16)</sup> The more heterogeneous the population and the more heterogeneous the object of their respective transactions and conflicts, however, the more conflict-relevant information is foregone during the process of abstraction and subsumption under formal rules. Decentralized procedures, adopted to specific local and social conditions may integrate more information necessary for conflict resolution than can be integrated into a forensic procedure. Therefore additional social normations, special ethics,<sup>(17)</sup> codes of conduct in personal (friendship) relations, families, tribes, ethnic minorities and religious communities etc., as well as ideologies in political parties and business organizations, from which rules of conduct and 'expected' attitudes and actions can be - often implicitly - derived; complement as well as substitute the formal legal system.

The case of complementarity will be referred to only in an exemplary form in section IV, while I now turn to consider the case of substitution in more detail.

#### Concentration of Institutions

Imagine an anarchic society (S) of  $n$  persons ( $i$ );  
( $m$ ) different commodities ( $k$ ) ( $k_j$ :  $j = 1, \dots, m$ )

are traded. An exchange involves the production of the service  $(z_j)$  by means of a technology  $(T_j)$  generating the costs of production of this service

$C_T \cdot z_j$  per unit.

$(z_j)$  is the intermediary service transferring the commodity  $(k_j)$  from its producer to its consumer. Subsequently, the production of  $(k_j)$  will be ignored and I shall only consider the production of the related service  $(z_j)$ .

The technology  $(T)$  consists of an institutional device which selects an optimal pair from all potential producers and consumers, establishing a particular connection, which makes the technical transfer feasible and guarantees the realization of the exchange in protecting it from all interference be it internal or external to the particular connection. This may be described as an insurance of the transaction. Whilst dependent upon the nature of the commodities transferred and the complexity of the exchange, it is assumed that the production of  $(z_j)$  involves decreasing average costs. (18)

Given that the number of exchanges per period of a particular commodity  $(k_j)$  is equal to  $x(k_j)$  and the service demanded is correspondingly  $x(z_j)$ , an institutional technology  $(T_j)$  may not operate at its optimal capacity because of the limited occurrence of transfers in  $(k_j)$ . Here it may be desirable for the owners of  $(T_j)$  to modify the technology (institution) so as to make possible the exchange of other commodities  $(k_{j+1})$ ,  $(k_{j+2})$  etc., this

involving an additional cost of  $\Delta C_{T_{j+1}}$ ,  $\Delta C_{T_{j+2}}$  etc. .

In what follows, it will be assumed for the sake of simplicity that all increments

$\Delta C_{T_{j+1}}$ ,  $\Delta C_{T_{j+2}}$  etc.  
are of equal size, although in the real world this will certainly not be the case. Starting from a particular technology ( $T_j$ ), a concentration process comes to an end when either all commodities exchanged are included, or for some commodity  $\Delta C_T$  exceeds the benefits from increased scale.

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Insert Figure 1

---

Typically this will be the case if the exchange is complex (cannot be easily formalized) or infrequent (or both).

This may be illustrated graphically in Figure 1. Apart from the good ( $k_j$ ) and the related service ( $z_j$ ), four further goods and connected services are assumed to exist. The costs of modifying the institutional device are, starting from  $C_{T_j}$ , equal additions for all ( $z_{j+1}$ ), ..., ( $z_{j+4}$ ). The quantities traded are equal for all five categories of goods, and the process starts from  $C_{T_j}$ .

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Insert Figure 2

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Figure 2 shows that both aggregate and average transaction costs decrease with the further introduction of commodities into the institutional device. The institution consequently grows up to

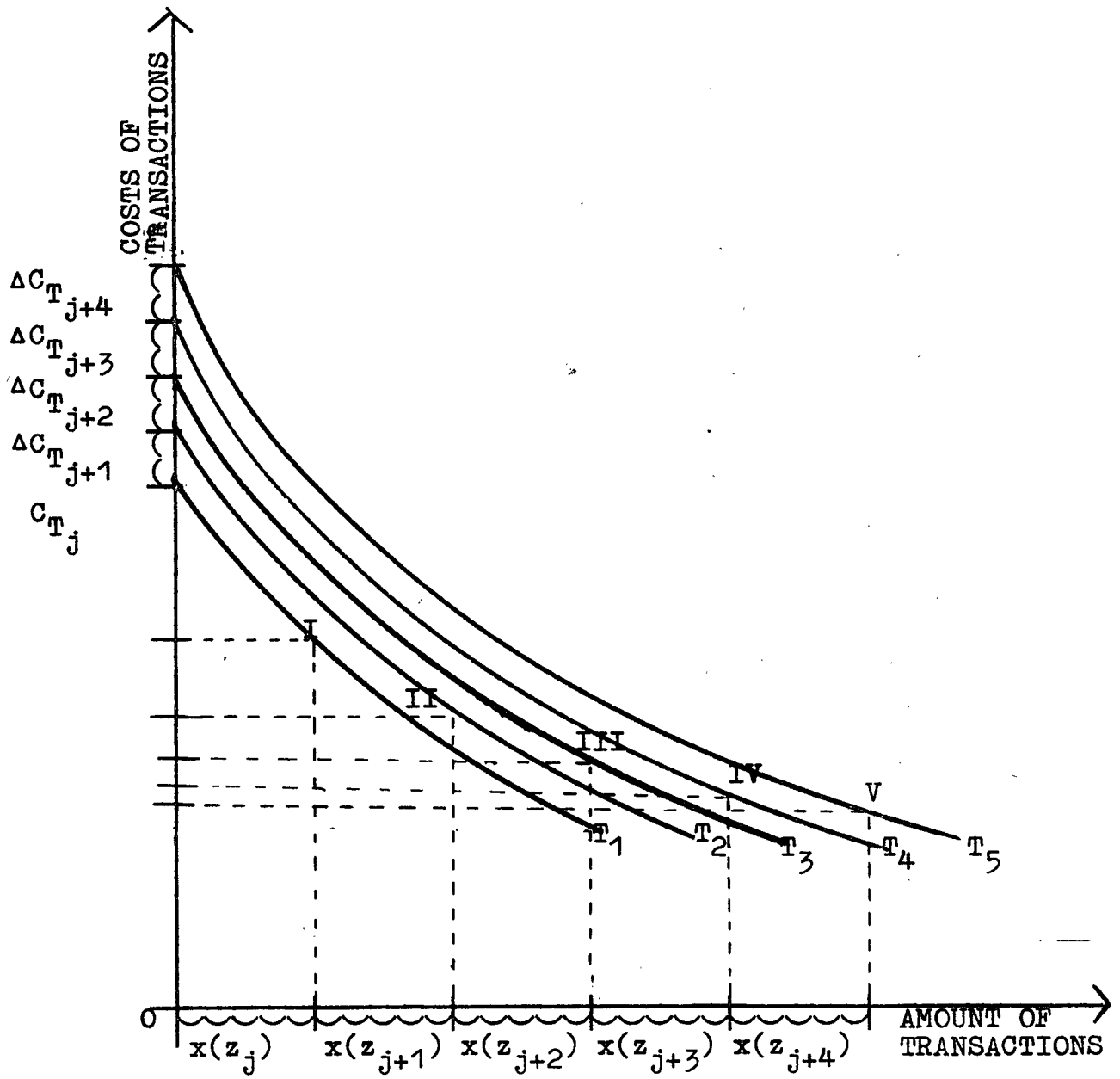


Figure I

CONCENTRATION OF INSTITUTIONS



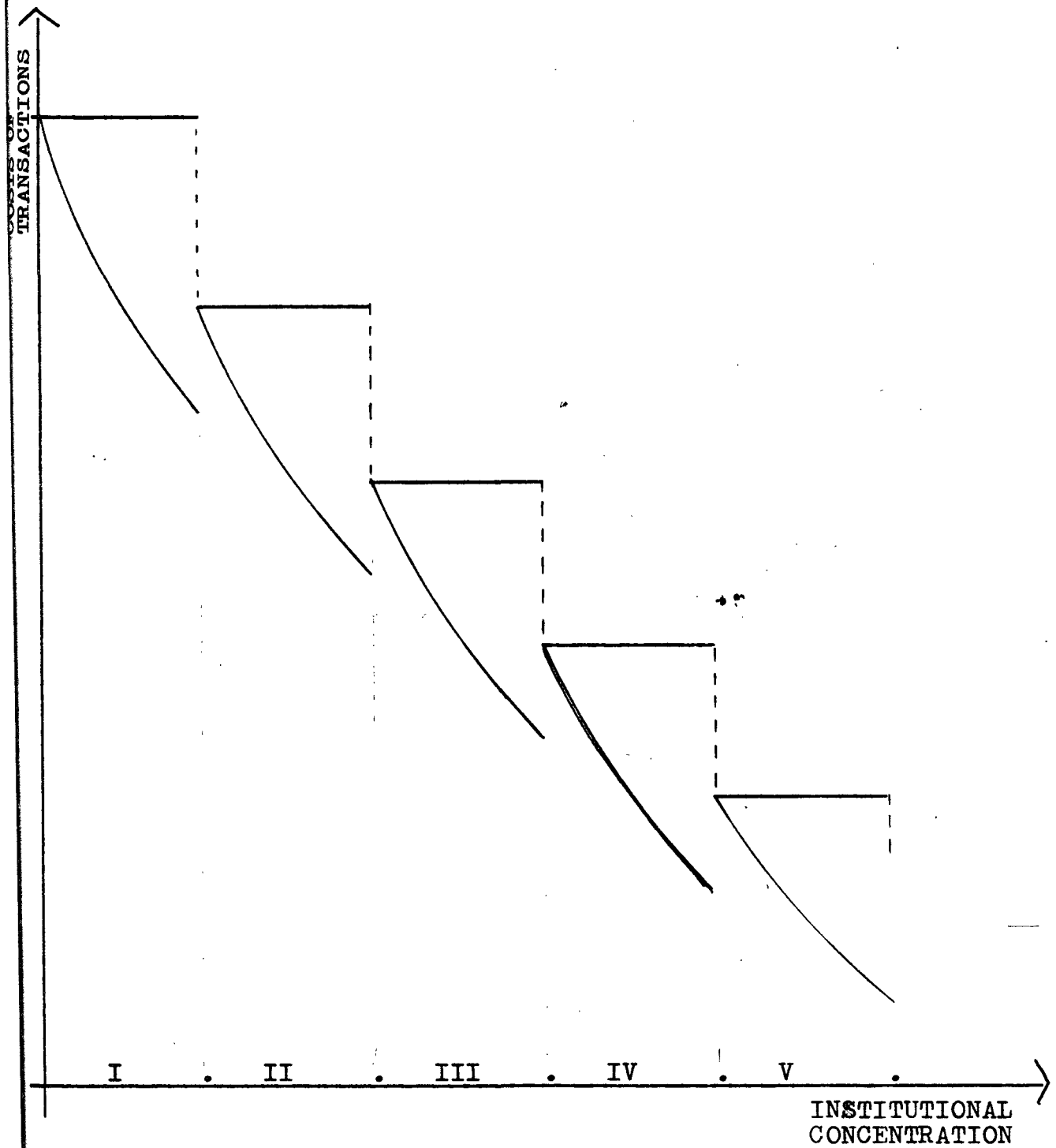


Figure II

AGGREGATE AND AVERAGE COSTS  
IN SUCCESSIVE STAGES OF IN-  
STITUTIONAL CONCENTRATION

the point of marginal equalities.<sup>(19)</sup>

### The Evolution of the Counter-State

If, however, (T) is more narrowly interpreted as the legal structure, the political nature of the state has to be taken into account. The state is not simply a device to economize on the costs of transactions by designing institutions which facilitate exchange. Rather, the state as a moral institution exerts its sovereign power to prohibit certain transactions. This raises instead of decreases the cost of transactions involving the commodity ( $\bar{k}_j$ ), the exchange of which contradicts the state policy in question. These prohibitive policies are, however, not necessarily welcomed by the citizen subject to the ruling. There exists a demand  $D_{\bar{k}_j}$  for ( $\bar{k}_j$ ) and the corresponding demand for the service ( $\bar{z}_j$ ). However, this transaction involves the cost  $P_{\bar{z}_j}$  i.e. the cost of the 'real' transaction as well as the expected punishment,<sup>(20)</sup> which increases with the number of exchanges effected. It follows from the discussion in section II, that there may exist an institutional device - a homogeneous group - which serves as an insurance against interference from the state. In the absence of such an institution, if there is a large positive difference between  $P_{\bar{z}_j}$  and  $D_{\bar{z}_j}$ , the transaction will not take place. If, however, the state happens to prohibit an exchange which may be effected within a pre-existent social group (e.g. an ethnic minority with few outside contacts<sup>(21)</sup>) and which -

consequently - evades political control), the set-up costs of an alternative institutional structure may be relatively small. Within this alternative structure,  $(\bar{z}_j)$  as before implies an insurance against interferences which might endanger the transaction, particularly interference by the state, if effective, imposing a cost of  $P_{\bar{z}_j}$ .

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Insert Figure 3

---

Once the alternative structure has been established and commodity  $\bar{K}_j$  traded, further commodities may be included - as discussed before - into the illicit exchange system.<sup>(22)</sup> As noted previously, this will involve additional costs ( $\Delta C_{T_{j+1}}$ ,  $\Delta C_{T_{j+2}}$  etc.). This is illustrated in Figure 3.

Again, latin numbers indicate the stages of successive integration.

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Insert Figure 4

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As shown in figure 4, once the counter-institution has been established, the re-legalization of trade in  $\bar{K}_j$  does not destroy the whole network. The process of the evolution and concentration of counter-institutions is not easily reversible. Once established, the network can survive on the exchange of  $\bar{K}_{j+1}$ ,  $\bar{K}_{j+2}$  etc.; furthermore, it is not, of course, restricted from facilitating the exchange of commodities  $z_j$  not prohibited.

This explains how in heterogeneous societies, mafia-

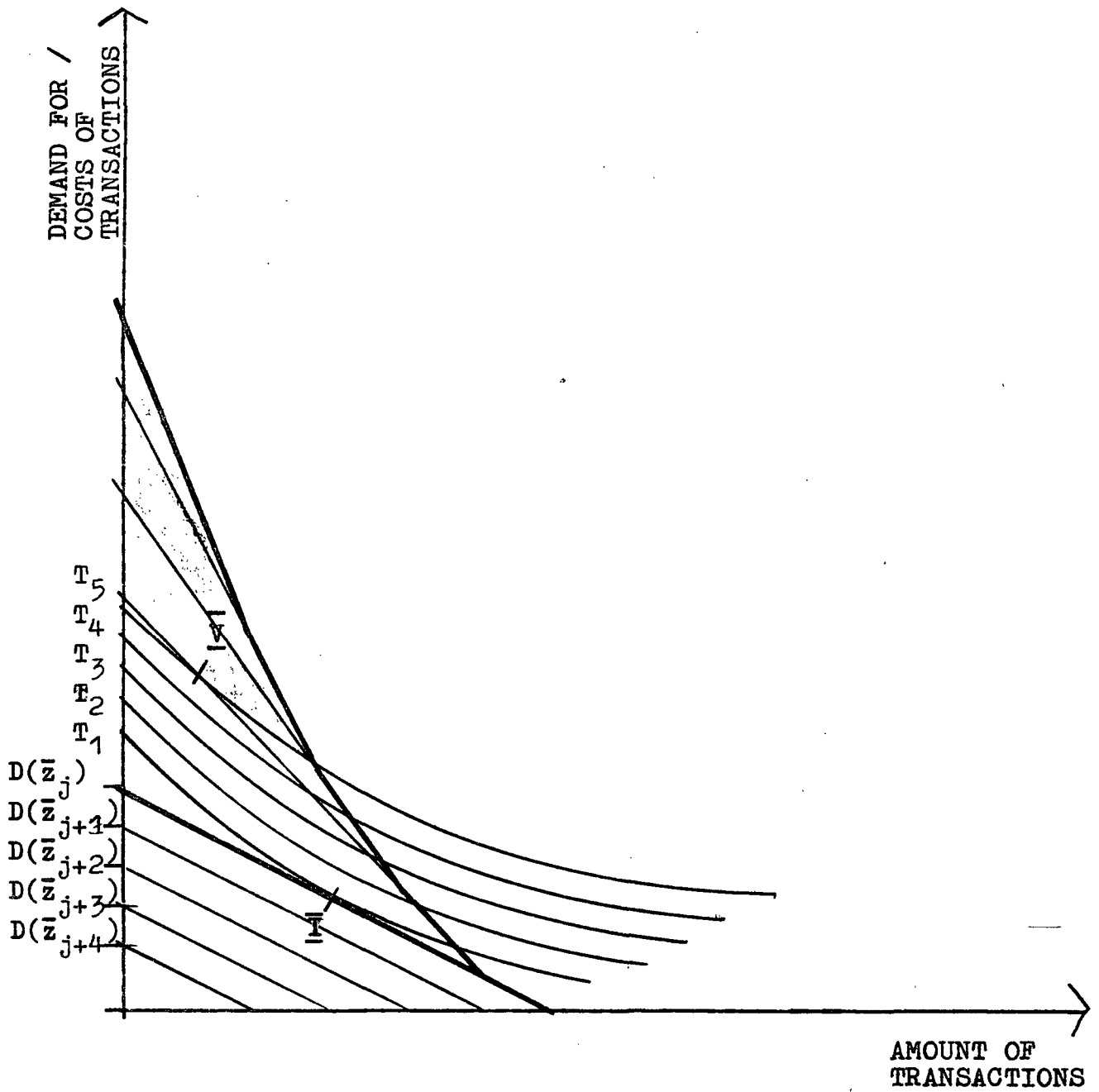


Figure III

THE EMERGENCE OF  
 MAFIA-TYPE ORGANIZATION

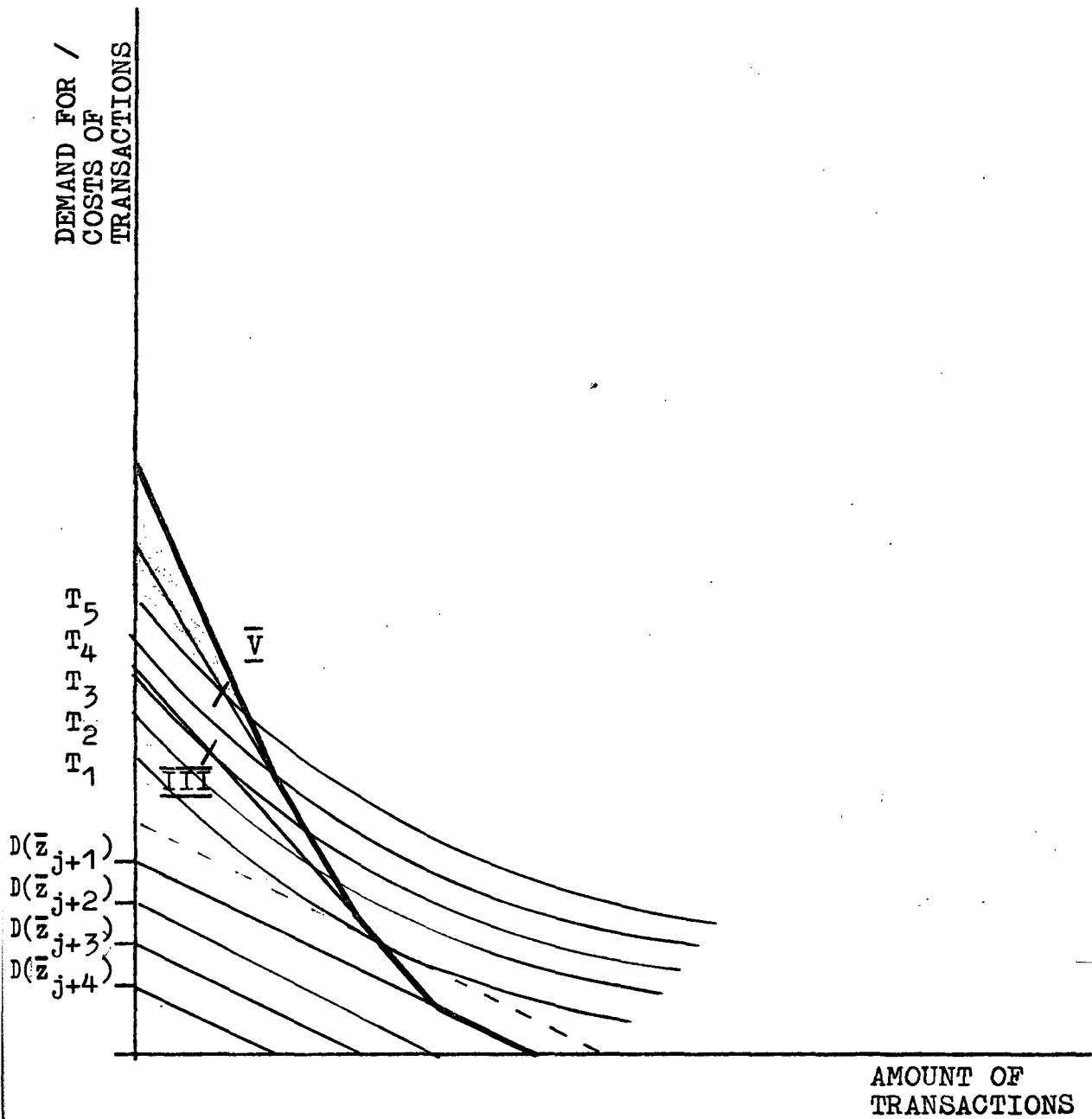


Figure IV

THE PERSISTENCE OF  
MAFIA-TYPE ORGANIZATION

-type organization can evolve and persist.

Counter-institutions based on the principles of restriction and prescription are able to profit from

- (c) reduced contract costs,
- (i) reduced information costs and
- (p) especially in case of prescription, reduced policing costs; in this case particularly reducing the risk of moral hazard<sup>(23)</sup>. To avoid this is, of course, essential for any insurance.

The profit, which is equal to the shaded area in figures 3 and 4, is appropriated by the effective 'owners' of the counter-institution. On the basis of this analysis it cannot be shown who these owners are. We may consider either the homogeneous group as a whole, an elite within the homogeneous group, society as a whole, the consumers of the services provided, or even an external agent.

#### IV

It would, however, be grossly misleading to think of counter-institutions only in terms of substitute networks engaged in illicit transactions. The predominance of illegal trade will in general be mainly the result of unwise public policy. The studies mentioned earlier<sup>(24)</sup> deal with:

- ethnically homogeneous groups<sup>(25)</sup> through which the trade of specific commodities is effected;
- homogeneity of local residents facilitating programs of community development:<sup>(26)</sup>

- ethnic homogeneity in Japanese neighbourhoods, effectively rendering police service superfluous;<sup>(27)</sup> further, in this case it is highly doubtful whether any state norm not shared by the homogeneous neighbourhood could effectively be enforced by the state (by means of police intervention);
- ethic homogeneity in professional groups facilitating internal group communication as well as the enforcement of standards of competence, deviant behaviour being ultimately sanctioned by expulsion; this method also prevents deviant behaviour in prisoners'-dilemma type situations,<sup>(28)</sup> where the common benefit is a monopoly or cartel profit extracted from the rest of society;<sup>(29)</sup>

As a final, though by no means exhaustive example<sup>(30)</sup>:

- personalistic homogeneity of social groups (identity groups) may be particularly relevant in political decision-making bodies such as committees. These groups serve as insurance systems against the risk of being defeated by vote, the group always voting as a bloc. following group decisions made earlier; the individual member substitutes the risk of being openly defeated against the risk of internal defeat, which is preferable ;
  - (a) because of similarity of members' preferences (and to the extent of this similarity:homogeneity) as well as
  - (b) because of the avoidance of an open defeat which might negatively

might negatively affect the political power attributed to the particular individual by non-group members of the political body.<sup>(31)</sup>

In general, a homogeneous social group is characterized by common reference systems, standardized behaviour and modes of conduct, and the compatibility of the ends of the individuals incorporated into the group. Homogeneity is continually reinforced by processes of social coercion, which work smoothly when members meet. Where this fails, homogeneity is secured by (the threat of) expulsion of deviant members.<sup>(32)</sup> Transactions costs in homogeneous groups are markedly reduced by a common language and social as well as local proximity, both reducing the costs of communication, by standardization and consequent predictability of group members' behaviour, and, as a consequence of both factors, specific insurance systems. In-group insurance, in turn, is superior to outside insurance because of the reduced costs of communication, monitoring of group members (reducing moral hazard) and conflict resolution.

Not all of these characteristics are present in every case mentioned. There exists, however, a close interrelationship between them. These interrelationships deserve further attention by economists, apart from the explanation attempted in this paper of the emergence of concentrated and constituted institutions and the emergence as well as persistence of counter-institutions.



## Footnotes

- (1) Institutionalism does, however, not reduce to Marxism, an opinion sometimes implied (see e.g. David Starret, "Social Institutions, Imperfect Information and the Distribution of Income", Quarterly Journal of Economics, vol. XC, no. 2 (May 1976) pp. 261-284). To the contrary, in the United States this view has e.g. been held by the institutionalist (Wisconsin) school of economics (see e.g. John R. Commons, Legal Foundations of Capitalism, (New York: Macmillan 1924; reprint Clifton: Kelley 1974; with a preface note by J. Dorfman), liberal economists such as Hayek (e.g. Friedrich August von Hayek, Law, Legislation and Liberty: A New Statement of the Liberal Principles of Political Economy (Chicago: University of Chicago Press, Vol. I 1973, vol. II 1976) as well as by the German tradition of the ORDO-school, which is aggressively anti-Marxist and on which Hayek to a certain extent relies.
- (2) See recently e.g. "The Symposium on Economics of Internal Organization", Bell Journal of Economics, vols. VI, VII, Nos. 1 (Spring 1975), 2 (Autumn 1975) and 1 (Spring 1976), pp. 163-180, 552-606, 105-131 respectively; and the "Symposium: The Economics of Information", Quarterly Journal of Economics, vol. XC, no. 4 (November 1976), pp. 591-666. See further Gordon Tullock (ed.) Explorations into the Theory of Anarchy and Further Explorations into the Theory of Anarchy, (Blacksburg: Center for the Study of Public Choice 1972, 1974) and the relating discussions by Public Choice economists.
- (3) Examples are: David H. Bayley, "Learning about Crime: The Japanese Experience", The Public Interest no. 44 (Summer 1976), pp. 55-68; Bruce R. Bolnick, "Collective Goods Provision through Community Development", Economic Development and Cultural Change, vo. 25, no. 1 (October 1976), pp. 137-150; Thomas R. Ireland, "Gordon Tullock's Game: A Personalistic Analysis", paper presented at the 1976 Annual Meeting of the Public Choice Society, Roanoke, VA. 15-17. April 1976; Hendrik Laurens Van der Laan, Lebanese Traders in Sierra Leone (The Hague

and Paris: 'S Gravenhage 1975); Stuart Oskamp, Daniel Perlman, "Effects of Friendship and Disliking on Cooperation in a Mixed Motive Game", Journal of Conflict Resolution, vol. 10, no.2 (1966); T.E. Silcock, "Special Ethics in the Economics of Group Behavior", Malayan Economic Review, vol. 7/8, no.1 (1962/63), pp.1-18; Martin B. Sussman, "Family, Kinship and Bureaucracy", in The Human Meaning of Social Change, eds. Angus Campbell and Philipp E. Converse (New York: Russell Sage 1972)

- (4) Janet Landa, "The Ethnically-Homogeneous Hokkien-Chinese Middleman Group: A Club-like Organization for Economizing on Contract-Enforcement Costs", paper presented at the 1976 Annual Meeting of the Public Choice Society, Roanoke, VA. 15-17 April 1976 and Janet Landa, "An Exchange Economy with the Legally Binding Contract: A Public Choice Approach" Journal of Economic Issues, vol. 10, no.4. (December 1976), pp. 905-922
- (5) A cost approach to Social Decision Making has been put forward in the seminal book by James M. Buchanan and Gordon Tullock, The Calculus of Consent: Logical Foundations of Constitutional Democracy (Ann Arbor: University of Michigan Press 1962); see also the critique by S. Sidney Ulmer, "The Role of 'Costs' in Political Choice: A Review", The Journal of Conflict Resolution, vol. XI, no. 2 (June 1963), pp.174-176
- (6) Thomas D. Crocker introduced this distinction. See his "Externalities, Property Rights, and Transactions Costs", Journal of Law and Economics, vol. XIV, no.2 (October 1971), pp. 451-464
- (7) The incidence of social decision costs depends on the structure of the homogeneous group in which decisions are taken. The above refers mainly to groups in which decisions are taken jointly by all members. If decisions are taken implicitly or hierarchically, a further reduction of alternatives will occur information processing capacity of the processes referred to. - For the sake of simplicity of exposition, dynamic aspects are excluded from the present discussion, although they are to a certain extent implicit in what has been said.

- (8) See Dennis C. Mueller, "Public Choice: A Survey", Journal of Economic Literature, Vol. XIV, no. 2 (June 1976), pp.395-433
- (9) See Mueller (1976, p.397) with further references to pertinent Public Choice literature. See also the references given in N.1
- (10) I particularly refer to what has been called the "Theory of Anarchy", see Tullock (ed.) (1972, 1974)
- (11) The most prominent attempt being by James M. Buchanan, The Limits of Liberty: Between Anarchy and Leviathan, (Chicago: The University of Chicago Press 1975)
- (12) See Buchanan (1975) ch. 7; see also Thomas R. Ireland, "Public Order as a Public Good" (unpublished manuscript, Loyola University, Chicago, 1968); this view has been taken to an extreme by Randall G. Holcombe and Robert D. Tollison, "Lindahl Pricing of the Law" (unpublished manuscript, Texas A&M University and Law and Economics Center, University of Miami, 1976)
- (13) It should be noted, however, that homogeneity is a necessary, not a sufficient condition for predictability of behaviour. Thomas R. Ireland, on the other hand, in an unpublished comment argues as follows: "However, 'homogeneity' itself is not enough to reduce transaction costs, as Backhaus assumes. Whether this will happen or not depends on the social structure within the identity group. (...) If I am a member of a group whose behavior is predictably unreliable, I will have lower costs in transactions with persons not in my group than with persons in it." Th.R. Ireland, "The Economics of Social Association" (unpublished manuscript, University of St. Louis, 1977). To me, it seems to be difficult to conceive of a group (i.e. 'set' and structure) which could generate predictable unreliability. At least to the extent of predictability, there should be reliability. To make things less difficult, however, 'unbehaved' groups whose behavior becomes the less reliable the more restricted is the action set will be ruled out from further consideration.

- (14) The conflict resolution is a jointly supplied good with a low degree of publicness. The equilibrium number of club-members is typically two, the scale being defined between one (pure privateness) and infinite (pure publicness). See James M. Buchanan, "An Economic Theory of Clubs", Economica, vol. 32, no.125 (February 1965), pp.1-14
- (15) Insofar as the specific rules can serve as a precedent for third parties, this wider applicability of the judge's sentence increases the publicness of the conflict resolution.
- (16) See Mueller (1976; p.398) with further references.
- (17) Silcock (1962) discusses the function of ethics in professional groups. For related phenomena in the provision of medical care see also Kenneth J. Arrow, "Political and Economic Evaluation of Social Effects and Externalities", in The Analysis of Public Output, ed. Julius Margolis (New York: Columbia University Press; NBER Conf. Series) 1970)
- (18) This assumption is a critical one and of pivotal importance for the argument put forward in this essay. Empirical evidence; however, at least to this author's knowledge can be cited exclusively in favor of the assumption. See e.g. John A. Mack in collaboration with Hans Jürgen Kerner, The Crime Industry (Farnborough: Saxon House; Lexington 1975). The pattern of diversification of criminal entrepreneurial activities once the communication and insurance network ('infrastructure') has been set up seems to be ubiquitous.
- (19) Because of the assumption of the equality of the total cost increments this cannot be shown graphically. Under this very restrictive assumption, the institution grows up until the point where it encompasses all goods and services. Consequently, only one such institution will survive in any given society. This case is identical to that which has up to now received the exclusive attention of economists.

The suggestion of the singularity of the state in this literature consequently rests on the implicit assumption of the equality of total cost increments. If this - as it seems: unrealistic - assumption is dropped, the purely economic explanation of the emergence and existence of the state no longer holds. (This does not preclude, however, different explanatory attempts in economic terms.)

- (20) For a graphical treatment of this relationship the reader is referred to James M. Buchanan, "A Defense of Organized Crime?", in The Economics of Crime and Punishment, ed. Simon Rottenberg (Washington, DC: American Enterprise Institute for Public Policy Research 1973, 1976(2)), pp.119-132 (120)
- (21) The Chinese heroin market in Central Europe may be cited as an example.
- (22) In the essay cited in N. 20, Buchanan argues in "Defense of Organized Crime" that monopolistically organized crime is preferable to non-organized ('competitive') crime because of its relatively lower output of criminal activity. "If monopoly in the supply of 'goods' is socially undesirable, monopoly in the supply of 'bads' should be socially desirable, precisely because of the output restriction." (p.119). For this surprising result to be correct, however, Buchanan had to assume independence of criminal activities (see p.127; see also the criticism by Dagobert L. Britto in the same volume, pp. 175-178(177-178)). If however, different criminal activities as such depend on an infrastructure and insurance system etc., the assumption of independence is untenable exactly because of decreasing average costs for the inclusion of further activities into the system.
- The policy implication of this is that instead of allowing the monopolization of crime, active disturbances of the internal network of criminal associations lies in the interest of the state.

- (23) The concept of 'moral hazard' was introduced by Kenneth J. Arrow, "Uncertainty and the Welfare Economics of Medical Care", American Economic Review Papers and Proceedings, vol. LIII (May 1963), pp.941-973. In the case of professional ethics, e.g. public silence is prescribed as the adequate response upon receiving knowledge of a colleague's act of malpractice.
- (24) See Oskamp and Perlman (1966) and Silcock (1962), cited above N.3
- (25) Through these groups the trade of specific commodities (import and luxury goods through Lebanese traders in Sierra Leone, rubber through through the Hokkien Chinese families in Singapore and Western Malaya was effected. While in Sierra Leone Lebanese traders were the only group maintaining outside as well as national contacts and therefore were able to engage in import trade, the Hokkien-Chinese reduced contract costs (in particular uncertainty due to unreliability of indigenous producers and further aggravated by peculiarities of the small holder rubber market) by means of dealing exclusively within their own families, thus reducing costs of information, transaction, conflict resolution etc.
- (26) See Bolnick (1976) cited above N. 3
- (27) See Bayley (1976) cited above N. 3
- (28) The reader unfamiliar with this constellation of interests is referred to Duncan Luce and Howard Raiffa, Games and Decisions: Introduction and Critical Survey (New York: Wiley 1957), pp. 94-102 = ch. 5.4, 5.5
- (29) See the references given in N.17 above
- (30) Further cases analyzed include: John C. Hause, "The Legal and Illegal Markets for Taxed Goods: Pure Theory and Application to State Government Taxation of Distilled Spirits: Comment", Thomas R. Saving, "The Legal and Illegal Markets for Taxed Goods: Comment", Rodney T.

Smith, "The Legal and Illegal Market for Taxed Goods: Pure Theory and Application to State Government Taxation of Distilled Spirits", The Journal of Law and Economics, vol. XIX, no. 2 (August 1976), pp.433-435, 431-432 and 393-430 respectively; in Smith's analysis, the substitution between legal and illicit trade is focussed, the homogeneous groups being firms. Hiroaki Hayakawa and Yiannis Venieris, "Consumer Interdependence via Reference Groups", Journal of Political Economy, vol. 85, no. 3 ((June 1977), pp. 599-617 stressing homogeneity in consumption. Mark H. Moore, "Policies to Achieve Discrimination on the Effective Price of Heroin", American Economic Review Papers and Proceedings, vol. LXIII, no,2 (May 1973), pp.270-277

- (31) See Th.R. Ireland (1976), cited in N.3 above
- (32) See recently George Akerlof, "The Economics of Caste and of the Rat Race and other Woeful Tales", Quarterly Journal of Economics, vol. XC, no.4 (December 1976), pp.599-617 (436)