

COLLECTIVE ACTION, HUMAN NATURE AND THE POSSIBILITY OF ANARCHY

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In his book *Anarchy and Cooperation*¹, Michael Taylor sets out to challenge the “widespread presumption that the state is necessary by criticizing what I think is the most powerful case for this belief”. (p. 12). This case can be stated as follows : human nature being what it is, the institution of government is necessary because without it “people would not provide themselves with public goods, or at any rate with Pareto-optimal amounts of these goods” (p. 9) “The argument that people will not voluntarily provide themselves with public goods rests on the assumption that the relevant individual preferences are those of a Prisoners’ Dilemma, at least where large numbers of individuals are concerned.” (p. 10)

Taylor’s challenge rests on three independent arguments : 1) there is no logical connection between problems of public goods provision (PGP) and the Prisoners’ Dilemma (PD); 2) it would in any case not follow from the existence of such a connection that it is never rational to cooperate voluntarily, since, if problems of PGP must be faced repeatedly and people know this, the fact that each such problem has the structure of a PD will not blind people to the fact that the whole sequence of such problems presents them with a qualitatively different kind of decision-problem; 3) and even if we grant the insufficiency of the preceding arguments, we should not conclude that an institution or agency, such as the state or government, which makes cooperation rational through the selective administration of rewards and punishments, is thereby justified : it is by no means clear that the fact that PGP in large groups always gives rise to a PD should be seen as the justifying cause, rather than the effect, of the activities of such an agency — and if it is their effect it cannot justify them.

The first two lines of attack Taylor pursues are based on the logic of collective action, the third rests on the logic of justification. I shall attempt to show that, with respect to each of these domains, he fails

to do justice to the complexity and subtlety of the rejection of anarchy which pervades so much of our political philosophy.

In his Preface, Taylor writes that his book is "about cooperation in the absence of government", yet he never makes clear just what he means by the term 'government'. It follows that his concept of anarchy equally remains in the dark. This is not just a slight oversight: it may mask a fundamental misunderstanding of the import of the argument against anarchy in political philosophy. Such a misunderstanding is already evident in calling this argument a justification of the state, and although there are no doubt people who have put the argument to that use, it should be clear that to show that it cannot be used successfully for that purpose can do little to boost the morale of all anarchists.

It is true, of course, that the argument against anarchy amounts to a defense of government, but the term 'government' refers here to the generic institution of government, not to some particular organization which successfully claims the monopoly of "legitimate" coercion within its jurisdiction. Coercion is indeed the key issue in the argument against anarchy, but the question is not whether there should be an organization with unopposable coercive powers. Rather the problem is to find the principles which allow us to distinguish justifiable and unjustifiable uses of coercion, i.e., to find the principles of good government². What the argument against anarchy submits is that coercive institutions are indispensable for maintaining a dynamic social order, primarily because the only effective way to prevent the growth of coercive organizations in which some persons are made to serve the goals of another is by the threat of coercion. The discovery that coercive institutions may actually protect freedom of action is the central tenet of the argument against anarchy. It derives its significance from the possibility of a consistent theory of the justifiable and unjustifiable uses of coercion as part of the philosophical foundations of a free society. However, how, i.e., by what kinds of institutional arrangements, good government can be provided is a problem that cannot be solved on the basis of the same assumptions about the universal characteristics of the human condition that are the premises of the argument against anarchy. Different kinds of social conditions may require different types of solutions³.

The anarchists reject the entire idea of the justifiable uses of coercion which is the corner-stone of liberal (i.e., libertarian) political philosophy⁴. Theirs is a vision of non-coercive society in which man's natural intelligence and goodness will prevail and prove to be sufficient for the achievement of a self-perpetuating social

harmony. For them the state or government is the root of all evil. Abolishing the state will be sufficient for the good life : coercion will disappear, there will be no use for coercive institutions to check coercion. (Whether this holds also for “internal” coercion as practiced in education, etc., is another question.) It is essential to keep the difference between the anarchists and the libertarians clearly in mind : in accepting the argument against anarchy, we need not accept the idea of an omniscient state; in rejecting that idea, we need not reject the idea that some kinds of institutional arrangements are required to give effect to the principles of good government.

The problem of the justifiable uses of coercion plays no part in Taylor’s arguments. His conception of governments is essentially statist: “[Governments] must work with and through (and sometimes even at the command of) a number of other institutions... I shall...call the government, together with these other institutions, ‘the state’ or ‘the state system’” (p. 130); and in the index to his book the entry ‘Government’ contains no more than the laconic reference ‘See State’. Although he seems to subscribe to the anarchists’ view that in the absence of government the very problems which might justify the use of coercion will disappear, it is not clear whether his arguments are directed against the generic institution of government, or only against the particular form of government which “coerces people to cooperate” in PD situations and in problems of PGP. We shall see that they carry weight *only* against the latter target; they do not affect the argument against anarchy.

There is another obscurity which must be mentioned. Taylor says he intends to challenge the view that the state is *necessary* in order to solve problems of PGP. What he means is apparently that some organization capable of coercing the members of a group to cooperate in the production of a public good is necessary. But it seems that such an organization is necessary only if there is no other way to secure PGP. Taylor does not explore whether there is another way⁵. In fact, he seems so convinced that the only way out of a PD is to coerce people to cooperate, that he reads this fallacy⁶ into Hobbes and Hume, to the point of claiming that “when they speak of the *Sovereign* or *common power* or *government* of a society, they refer to something with sufficient control over the members of the society to be able at least to coerce them to Cooperate in Prisoners’ Dilemma situations.” (p. 130)

Even if we should grant — and we shouldn’t — that all PGP-problems are PDs, the converse is obviously not true. Yet Taylor’s analysis is most of the time nothing but an analysis of the

PD. In other words, the specific problems of PGP are not discussed at all. For a state committed to the rule “coerce them to cooperate !”, there may be no specific problems of PGP over and above the problems raised by PD situations, but from the point of view of the philosopher in search of principles of good government, the distinction is no doubt relevant. A public good is a public good, whether anybody wants it or not : the fact that a public good is not provided through voluntary cooperation does not mean that we have a PD on our hands; it may mean no more than that the members in the group have no use for it given their actual choice-environments. It follows that the state is even more *necessary* for the production of public goods nobody wants. This is, of course, a truism, but it cannot be part of the argument against anarchy. In fact, the argument against anarchy has always specified which public goods should be protected by coercive institutions — not, by the way, which public goods the state should coercively provide — and this selection of public goods, which constitute the public good in the moral and political (as against the merely economic) sense, has been thought to be determined either by actual unanimous consent of all participants in an initial contract or by reference to moral and natural law precepts. In the context of the argument against anarchy, ‘necessity of government’ means either that a proof of the rationality (rational justification) of coercive institutions exists, or that a proof of their justifiability (moral justification) can be found. In his third argument, Taylor seems to assert that the very concept of such a proof is meaningless, and hence that to talk of the necessity of government (in this sense) is gibberish. But otherwise he treats this kind of talk as quite meaningful but false : public goods (in the economists’ sense) may be provided through voluntary cooperation, even in large groups; PD-situations, if recurrent, may give rise to mutual cooperation, even in large groups; the state is not necessary.

I shall begin with a short exposition of the logic of collective action in order to find the place where Taylor’s argument about the possibility of cooperation in the absence of government must be located. We shall see that it presupposes a rather specific epistemic structure of the environment in which collective action is to be observed. This result is relevant to the question, which must be faced when we move from the logic to the theory of collective action, whether the precariousness of PGP through voluntary cooperation — which Taylor does not deny — is due to a characteristic of human nature, viz., excessive self-love. I shall consider the assumption of rational self-interest in order to find out whether it applies only to men who have long lived under a government, i.e., in order to find

out whether it would lose its *explanatory* value in a society of altruists. (Taylor argues that “positive altruism and voluntary cooperation atrophy in the presence of the state and grow in its absence”. (p. 134)) We shall see that it is again the epistemic structure of the social environment which is the crucial factor, not some opinion about the benevolence of man.

In the final section, I shall consider the pitfalls which must be avoided when the theory of collective action is made the basis of policy recommendations. Here it is particularly relevant to keep the several meanings of the term ‘necessity of government’ well separated⁷.

1 The Logic of Collective Action : Ideal and Non-Ideal Groups

In his book *The Logic of Collective Action : Public Goods and the Theory of Groups*⁸, Mancur Olson argues that large groups will not normally succeed in realizing their members’ common interests through voluntary cooperation. Taylor, at various points, criticizes Olson’s approach and results — which can be, and are, used to bolster the argument against anarchy. My aim, in this section, is to reproduce systematically the logical frame-work which underlies Olson’s theory. Problems that may arise in connection with the application of the logic of collective action to group behaviour in the real world will be discussed later on. Nothing is to be gained by failing to distinguish between the *logic* and the *theory* of collective action.

For the sake of simplicity (and completeness within the space that is available to me) I shall discuss here only a very special case : the logic of group behaviour in an (absolutely) small group of two persons. As will be seen, no more is needed to generate the relevant properties with respect to PGP of all of Olson’s groups *insofar as these properties depend on individual preferences*. There is therefore no need to tackle the thornier questions of the theory of n-person games, especially since Taylor’s relevant analysis is set entirely in the same frame-work. (It is true that he includes a very interesting analysis of voluntary cooperation in an n-person group in order to show that the possibility of such cooperation exists no matter how many members there are in the group, but we shall see that this proof misses the main point in Olson’s exposition.)

People have common interests because they live together in a common environment (field), the properties of which are relevant to the success or failures of the plans and actions of all of them : the same property, or set of properties, of the field may stand in a

similar relation to the prospects for goal-achievement of more than one person. Thus several persons may have a common interest in the occurrence or non-occurrence of a change of a certain kind, even if their personal goals or values are quite different or even incompatible. Whether a group of people have an interest in common depends therefore on the alternatives open to each of them, i.e., upon their personal choice-environments. If these change, then the composition of the various common interest groups may change too.

People who have an interest in common with others expect to benefit from the existence of a collective or common or public utility — a public good, where 'good' should be understood in the ethically neutral sense of the economists' parlance. A public utility is a commodity or condition that is available to (or provides satisfaction for) all the members of the group — though not necessarily in equal measure — when it is available to (or provides satisfaction for) one of them, either because it is not (technically, economically, politically or otherwise) possible to withhold it from any member, or because nobody will in fact withhold it: the members of the group are not excluded from using or enjoying that utility. Obviously, where his exclusion is possible, the individual will find that the chances that he will be excluded constitute a relevant consideration in the appreciation of his situation. If he does not expect to be excluded, the individual member will know that he can have the benefit of the public good or condition as soon as it is produced or comes into existence, whether he has contributed to its production or not. The interesting problem is to see how this fact affects the likelihood that people will voluntarily provide themselves with public utilities, or that they will voluntarily cooperate to prevent a public disutility from coming into existence.

Each individual in the group must decide whether *his* contribution to the production of the public utility will lead to a result — i.e., the availability of an additional amount of that utility — which makes worthwhile (justifies) the costs involved in making that contribution, especially the opportunity costs. A number of considerations, related to the *kinds* of public utilities involved, or to the tastes, values and plans of the various individuals in their specific choice-environments, are relevant here. Let me just name a few: The individual may have a kind of veto with respect to the production of the public good unless *he* contributes, the utility may not become available at all, at least not in sufficient quantity to make it worth anybody's while — and some or all the other members may have a similar veto. The individual may not be in a position to make a perceptible impact on the level of production of the good, and this "insignificance" may be

shared by some or all other members. The individual may be decisive with respect to some problem of PGP — if *he* contributes, the good will be available — and, again, some or all others may be similarly decisive. Furthermore, the subjective value to an individual of using or enjoying the public utility may be a function, increasing or decreasing within certain intervals, of the number of other persons who use or enjoy it, or of the rate at which they use it.

Let us consider a simple case : a group with only two members in a world with only one public utility and only one private utility. Each member in the group has to decide whether to choose strategy C (i.e., “allocate some private resources to the production of the public utility”, in short, “contribute” or “cooperate”) or to choose strategy D (i.e., “allocate all private resources to the production of private goods”, “do not contribute to PGP”, “do not cooperate”). Let P and Q be amounts of the public good; and let p_i and q_i ($i = 1, 2$) be amounts of private goods belonging to the i th member. We set $P > Q$ and $p_i > q_i$. The objective production and distribution-relations are given in the matrix M1.

		M1		2
			C	D
1	C		Pq_1, Pq_2	Qq_1, Qp_2
	D		Qp_1, Qq_2	p_1, p_2

In discussing the logic of collective action, we must not assume that the subjective value of a player depends only on the quantity of goods received. We should not assume that all human agents are merely pay-off maximizers. Indeed such an assumption would not help us here, since, in the absence of information about the trade-off relations for each individual between units of the public and units of the private good, M1 would allow us to derive conclusions about the rational behaviour of the two players only if we knew that they were either pure private good maximizers or pure public good maximizers, i.e., interested in nothing else but the amount of private goods or of public goods they will receive. Thus knowledge of the objective quantities in M1 gives us no clue as to the cardinal or ordinal relationships among X, Y, Z and W in M2, the matrix containing the utilities or subjective values of each player for each conceivable pattern of interaction. Thus the utility x does not give us the subjective value of the pay-off Pq_1 , but of the pattern of interaction

(C,C), and must be seen as the aggregated result of Player 1's valuations of (C,C) along an indefinite number of simple or basic value-dimensions.

	M2		2
		C	D
1	C	x, x'	w, y'
	D	y, w'	z, z'

But, although it is true that we should turn to M2 in order to draw conclusions about the rational behaviour of the members of group, we must not forget that the nature of the goods (their publicness or privateness) in which the pay-offs are made cannot be derived from the relationships in M2.

In order to simplify somewhat, I shall assume that $X \neq Y$ and $W \neq Z$, so that, no matter what the other player may do, an individual is never indifferent between choosing C and choosing D. The effect of this assumption is to make sure that there are at most two strategic equilibria (seq.). Any *play* of the game can be represented as a vector (S_1, S_2) where S_1 is C iff the first player contributes to the public good, and D otherwise, and S_2 is C or D depending on the second player's choice. A play is said to be a seq. iff no player can do better (expect a higher utility) by using a different strategy while the other player's strategy remains the same. It follows that if a player expects the other to do his part in bringing about a s.eq., he has no reason not to do the same. If there is only one s.eq., each player has only one equilibrium strategy and neither has any incentive to use another. There may however be more than one seq. or none : in the former case we have to find out whether some s.eq. is such that no player should expect it to be the actual play. This will be the case if one seq. is Pareto-inferior to some other, i.e., if at least one player is better off and none worse off when the other is played. No player should expect a s.eq. to be played when it is Pareto-inferior to another.

We can now state that the following, and only the following, cases can arise : 1) either there is no s.eq. (but this case will not be discussed); 2) or there is only one s.eq. — viz., either (C,C) or (C,D) or (D,C) or (D,D); 3) or there are two s.eq. — viz., either (C,C) and (D,D) or (C,D) and (D,C). No other combinations are compatible with our assumptions.

Finally we assume that both players prefer mutual cooperation to mutual defection (non-cooperation), i.e., (C,C) to (D,D). In other words, we assume that $X > Z$. This assumption ensures that (D,D) is always Pareto-inferior to (C,C).

Various types of situations can now be defined. 1) Suppose (C,C) is a s.eq.; then we have to do with an *ideal group*. If any player expects the other to contribute, his best strategy will be to do the same: given that some amount of the public good is produced by the other, each player will rather produce an additional amount of the good than take a free side (i.e., than use or enjoy the good as produced by the other) — for if (C,C) is a s.eq., then $X > Y$ for both players. There are two subclasses: 1a) a *strictly ideal group* (SIG) if (C,C) is the only s.eq. In this case at least one player would rather produce some amount of the good unilaterally than do without any amount of the good at all (for that player $W > Z$); and 1b) a *virtually ideal group* (VIG) if (C,C) is a s.eq. together with (D,D): both players will rather produce an additional amount of the good than take a free ride, but neither is prepared to produce any amount unilaterally.

It follows that an ideal group should have no problem of PGP. For if we have to do with a SIG, then both players should play C, since (C,C) is the only s.eq. It is rational for both to contribute to PGP. And if we are dealing with a VIG, then, since for both players $X > Z$, (D,D), although a s.eq., is Pareto-inferior to (C,C), and no player should expect the former to be the actual outcome.

Before we go on to consider the other types of situations, I should say something about the interpretation of these definitions. What is the force of the word “should” in the preceding statements? It does *not* follow from the definition of an ideal group that such a group will *in fact* have no problem of PGP. For actual players do not of course act on what some omniscient observer knows about their group, but on their own knowledge or expectations and on their own evaluations. It does not follow from the fact that a group is ideal that its members know or believe that it has all the relevant characteristics. The nature of the group, as expressed in our definitions, depends upon the ordinal relationships among the utilities for each player of all possible patterns of interaction, and not at all on what the players actually know or expect or believe.

Suppose we have a SIG, but that neither player expects the other to contribute. Since it is a SIG, at least one player will still produce unilaterally, so that at least some amount of the public good will be produced. But if no more than one player prefers to contribute even if he expects the other not to do the same, then the actual outcome,

say : (C,D), may be Pareto-inferior to (C,C), to wit, when the first player's preference is $X > W$ (when he prefers joint contribution to his own unilateral production). Despite the fact that in a SIG *both players should contribute*, the most we can be certain of is that *at least one will contribute*, and this certainty is conditional upon our knowing the facts our definitions require.

In a VIG, however, if one player expects the other not to contribute, he will also prefer not to contribute (since (D,D) is then the only s.eq. he can expect). Hence, if neither expects the other to play C, the actual play will be (D,D) : we cannot even be certain that at least some amount of the public good will be produced, although both players should play C and should expect the other to play C. These mistaken expectations are due, of course, not to an unfamiliarity with the theory of strategic equilibria, but to lack of knowledge of the relevant preferences of other persons.

So when we say that an ideal group should have no problem of PGP we mean no more than that the preference orderings of the players over the set of possible patterns of interaction constitute no obstacle to mutual cooperation. We specifically do not mean that in an ideal group mutual cooperation is guaranteed by the preference structure. There can be no excuse for neglecting the role of knowledge, beliefs and expectations in assessing the chances that what is, because of the actual preference structure (which nobody, not even the scientific observer, may know), an ideal group will engage in voluntary cooperation in problems of PGP. It is necessary to bear this in mind since a) the distribution of knowledge is the most important empirical element for any *theory* of collective action, b) it is an essential factor in the discussion concerning the possibility of anarchistic social order, and c) it is wholly neglected in the *logic* of collective action (which must not be prejudiced for or against any particular hypothesis about the distribution of knowledge).

Keeping this *caveat* in mind, we now turn to other types of groups. 2) Suppose (C,C) is *not* a s.eq. Then we are dealing with a non-ideal group. At least one player will prefer to take a *free ride* rather than produce an *additional* amount of the public good : we must have $Y > X$ for at least one player. Here two subcases are of interest : 2a) either (C,D) or (D,C) or both are s.eq. This will happen if at least one player is willing to produce the good unilaterally ($W > Z$). Such a group I call a PG or *privileged group*. 2b) if (D,D) is the only s.eq., we have a *strictly non-ideal group* (SNIG) : we have $Z > W$ for both players; hence at least one of them is willing to take a free ride but none is willing to be unilateral provider of the public

good. If both prefer to take a free ride, then, since $X > Z$ (by assumption), we have for both players the preference ordering $Y > X > Z > W$ which is characteristic of the Prisoners' Dilemma. Thus, from the point of view of the logic of collective action, the PD is but a special case of SNIG.

If in a PG both (C,D) and (D,C) are s.eq., and neither of them is Pareto-inferior to the other, we cannot say which of the two should be the actual play. What we can say however is that, if neither player expects the other to contribute, both will contribute; and that, if both expect the other to contribute, neither will. In a SNIG, on the other hand, there should be no PGP, but all we can be certain of is that at least one player will not contribute.

We see, then, that, even if we know the facts which our definitions require (the individual preference orderings over possible patterns of interaction), there is little we can predict about the amount of PGP, and that the actual amount of PGP gives us little information about the type of group. But we also see that we can derive specific conditionals about the relation between expectations and PGP in groups of various types. It is on these conditionals that the possibility for an empirical theory of collective action rests: the problem is, clearly, to find the data which are accessible both to the social agents and the members of the scientific community and upon which particular hypotheses concerning individual preference and expectations can be constructed.

I have now concluded the analysis of the cases compatible with our assumptions (except for the case where there is no s.eq., but, although it may not be exceptional, it will play no role in the following arguments). It should be noted that the types discussed above are all determined with respect to a *static* problem of PGP: the players have to decide whether to contribute *at this time* to some public good. Since Taylor takes issue with Olson's logic of collective action, I should first relate my analysis to Olson's. In particular, I shall show that his approach can be mapped into mine *as far as the logical infrastructure of his empirical theory is concerned*.

Olson does not discuss ideal groups, at least not as part of his taxonomy. He does question, however, the assumption, which he ascribes to most "traditional" or "sociological" theories of group behaviour, that common interest groups tend to be ideal groups. This assumption could be rationalized with reference to the matrix M1: if we delete all mention of the amounts p_i and q_i of private goods, we see that a "rational" pay-off maximizer will choose to cooperate no matter what he expects the other player to do: C is his dominant strategy; if both players are such pure public good maximizers, (C,C)

is the only s.e.q. and moreover the Pareto-optimal outcome, so that no player should have reason to try to get a better deal by arranging for, and enforcing, some other coordinated result. However, this rationalization neglects completely the opportunity costs involved in making the contribution to the public good (the value of the private goods that could be had by an alternative use of resources) and is therefore useless. from the point of view of the economist⁹. Olson criticizes the "non-economic" group-theorists for imputing to human beings an inexplicably pronounced preference for public over private goods — inexplicable, because they professed to work from the same kind of data which are also available to the economists, who, while taking into account the opportunity costs of such group-oriented behaviour, could not find sufficient grounds for such an imputation.

Olson's discussion, then, is restricted to non-ideal groups. Within the range of social phenomena with which he pre-occupies himself, the concept of an ideal group has no explanatory value. He distinguishes three types of groups: the "privileged", the "intermediate" and the "latent" group. The *privileged group* is defined as follows: "a group such that all of its members, or at least some of them, have an incentive to see that the collective good is provided, even if one has to bear the full burden of providing it himself." (p. 50) This, if it is accepted that such a group is non-ideal, accords with the definition of the privileged group in my analysis. Olson adds that in such a group there is a *presumption* that some amount of the public good will be provided: either (C,D) or (D,C) *should* be the outcome, but neither need be.

Since I have only the concept of a SNIG left, it might appear that my approach cannot do justice to Olson's taxonomy with its further distinction between the intermediate and the latent group. This impression, however, is mistaken. The distinction Olson makes cannot be given with respect to the "static" problem of PGP: it collapses when conceived in static terms; in the static analysis, both intermediate and latent groups appear as SNIGs. Taylor, accusing Olson of a merely static analysis, fails to notice this: I shall argue that this failure undermines his case against the argument against anarchy, at least to the extent that it rests on the logic of collective action.

"An intermediate group", Olson writes, "is a group in which no single member gets a share of the benefit sufficient to give him an incentive to provide the good himself, but which does not have so many members that no member will notice whether any other member is or is not helping to provide the collective good." (p. 50) The first part of the definition makes clear that Olson has in mind a

SNIG : if no member wants to be unilateral provider, mutual non-cooperation is a seq, and if the group is non-ideal, as all Olson's groups are, it is the only one (in our simple 2x2-game). The second part of his definition serves to distinguish the intermediate from the latent group : the latter is characterized by the condition that "if one member does not help provide the public good, no member will be significantly affected and therefore has no reason to react." (p. 50) It should be obvious that Olson considers both groups to be indistinguishable from the static point of view. The difference between the two groups depends on what the players know about their earlier interactions : whether the other made a contribution, whether his contribution made a sufficient difference, etc. — and this cannot be included in the static analysis.

There seems to be an ambiguity in Olson's use of the concept of *noticeability* : it seems to oscillate between two interpretations, on the one hand, noticeability of the *actions* of others, on the other, noticeability of the effects of their actions on one's own burden or benefit. E.g., Olson writes : "The noticeability of actions of a single member of a group may be influenced by the arrangements the group itself sets up. A previously organized group, for example, might ensure that the contributions or lack of contributions of any member of the group, and the effect of each such member's course on the burden or benefit for others, would be advertised, thus ensuring that the group effort would not collapse from imperfect knowledge." (p. 45n) However often the two concepts may apply simultaneously to a single situation, they are not equivalent : I may notice that you do or do not cooperate and yet perceive no significant change in my burden or benefit; I may notice there is a significant change in my burdens or benefits and not notice that someone has altered his course of action. (Of course, it is conceivable that such a change in my burdens or benefits occurs even if no-one in the group has changed his mind : external, non-social causes may be at work). For the sake of simplicity, I shall assume that the distinguishing characteristic is the noticeability of actions : this choice will allow a direct comparison with Taylor's analysis of voluntary cooperation¹⁰.

It should be clear that Olson's distinction between the two kinds of SNIGs presupposes that the problem of PGP is a recurring one, and that this contradicts Taylor's charge that "the treatments of this problem by economists, including Olson's *Logic of Collective Action*, are all static" (p. 28) in the sense that individuals are supposed to decide in matters of PGP without regard for past or future experience.

In an intermediate group, Olson says : "a collective good may, or

equally may not, be obtained, but no collective good may ever be obtained without some group coordination or organization.” (p. 50) In other words, in some intermediate groups, voluntary cooperation may be the rational thing to do, but in others a coordinator (advertising who contributes, how many contribute, and how much each contributes) or an organization (possibly with coercive powers, selectively administering rewards and punishments) may be needed. (We shall see that Taylor’s positive argument for the possibility of anarchistic PGP, as it rests on the logic of collective action, is nothing but an elaborate analysis of collective action in intermediate groups, and hence fails to come to grips with Olson’s basic contentions, which are all concerned with latent groups.)

On the other hand, Olson writes, an individual in a latent group “cannot make a noticeable contribution to any group effort, and since no one in the group will react if he makes no contribution, he has no incentive to act to obtain the collective good because, however valuable the collective good might be to the group as a whole, it does not offer the individual any incentive to pay dues to the organization working in the latent group’s interest, or to bear in any other way any of the costs of the necessary collective action”. (pp. 50f) And he adds : “Only a separate and ‘selective’ incentive will stimulate a rational individual to act in any group oriented way.” (p. 51) In a latent group, voluntary cooperation is never rational.

2. *The Logic of Collective Action : Strictly Non-Ideal Groups*

In order to illustrate the logic behind Olson’s statements about intermediate and latent groups I shall again refer to the most simple case one might imagine : a two-person group faced with a finite series of successive PGP-problems — in fact, the series will contain just two elements. As before, each problem situation can be represented as a static problem in the form of a game requiring each player to decide independently whether to contribute to the public good or not. Since we are interested in SNIGs, we should stipulate that in each of the successive games — call them G_1 and G_2 — mutual defection must be the only s.e.q. For the sake of comparison with Taylor’s analysis, I shall assume that both G_1 and G_2 are PDs : thus, in every constituent game taken in isolation, every player has a dominant strategy, *to wit* D. (Remember that this assumption implies that for each player in each constituent game the following preference ordering must hold : $Y > X > Z > W$).

Consider now the problem of PGP as it presents itself to the two members of the group as they prepare to make their move in G_1 .

They know that afterwards they still have to play G_2 . Let us say that this is the Superproblem S. Since in each game each player has the choice between exactly two moves, viz. either C or D, we know that, whatever choices a player makes, his behaviour in any play of the superproblem will fit one and only one of the following descriptions : either CC or CD or DC or DD — i.e., either C in the first game and C in the second, or C in the first and D in the second, etc. Since there are two players, each of which must behave according to exactly one of these patterns, there are at most sixteen different outcomes of S : each outcome is determined by the behaviour of the two players in interaction, but it is of course possible that more than one combination of behaviour-patterns yield the same outcome (the same utility to the same player). These sixteen possible outcomes are : (CC,CC), (CD,CC),..., (DD,DC), (DD,DD). Thus, if the first player's behaviour pattern is CD, and the second's pattern is DC, the outcome of G_1 is given by the vector (C,D) and the outcome of G_2 by the vector (D,C); then the result for the first player of this play of the superproblem S is w_1 in G_1 , and y_2 in G_2 , i.e., w_1+y_2 ; the result for the second player is y'_1 in G_1 and w'_2 in G_2 , i.e., $y'_1+w'_2$. Hence, if the play of S is (CD,DC), the result is $(w_1+y_2, y'_1+w'_2)$.

Since we know that for each player in each constituent game $Y > X > Z > W$, we can establish a priori some, but not all, ordinal relationships among the sixteen possible outcomes of S. E.g., since $X > W$, we know that $X_1+X_2 > X_1+W_2$. But we do not have sufficient a priori information to know whether W_1+Y_2 is greater or smaller than, or equal to Y_1+Z_2 . We do not set Y_1 equal to Y_2 , firstly, because there is no reason why we should, and secondly, because in this way we cover Taylor's assumption that the players discount future pay-offs to the present.

Now, the fact that each player's behaviour must fit exactly one of the four patterns named above does not necessarily mean that, under all conditions in which the superproblem might be tackled, each player has only four strategies to choose from : the same behaviour pattern may result from the implementation of two or more different strategies. E.g., the pattern CD for player 1 will result from the unconditional strategy CD (i.e., "play C in G_1 and D in G_2 "), but also from the conditional strategy C^+ (i.e., "play C in G_1 but in G_2 play C if, and only if, the other has played C in G_1 ") when the second player has chosen D in G_1 . Clearly, such conditional strategies as C^+ will be practicable only if the player knows at the beginning of the episode that before he will have to decide whether to contribute or not in G_2 he will know what his opponent did in

G_1 . There are of course all sorts of events that may be chosen as conditions (e.g., the state of the weather, which political party is in power, etc) but I shall follow Taylor and be concerned only with one class of conditional strategies, viz. those which specify as the relevant condition the move selected by the other player in the previous constituent game.

The conditional strategies to be considered here for the playing of S are : 1) C^+ , i.e., "C in G_1 but in G_2 play C if, and only if the other has played C in G_1 " or, in short, "CC(C)"; 2) D^+ , i.e., "DD(D)"; 3) C^- , i.e., "CC(D)"; 4) D^- , i.e., "DD(C)". Obviously there are four unconditional strategies in S : one for each of the possible behaviour patterns CC, CD, DC, DD.

These eight strategies are all the strategies that will be considered : they suffice for our purposes. They are not identical to Taylor's set of strategies in his analysis of what he calls the *Prisoners Dilemma Supergame*, since he considers an indefinitely long sequence of constituent games ($G_1, G_2 \dots, G_n \dots$); hence his analysis is much more complex and indeed incomplete — even taking into account the restricted class of conditions he admits for constructing conditional strategies. In restricting myself to a finitely long sequence, I can make a complete analysis with regard to the same *class* of conditional strategies, and hence derive results pertaining to the same *kind* of situations. (Taylor's argument that with the assumption of a finite number of constituent games the dilemma remains, i.e., mutual non-cooperation throughout the superproblem must be the only solution, is not relevant¹¹ : the whole idea of the Superproblem-approach is that the players stay committed to a strategy throughout the actual playing of the supergame; they choose that strategy before the first game begins. We shall see that, when we consider certain supergames based on the (finitely long) superproblem S , the players should sometimes conclude that the dilemma is avoidable.)

It is assumed, then, that the situation in which the players confront the superproblem S of PGP allows them to choose among at most these eight strategies. Even with this restriction a large number of *super-games* can be defined by specifying just which strategies are available to which player. Only a few of these supergames, however, need be considered.

Let S_0 be the supergame (based on S) in which each player can choose among all eight strategies. Consequently, there are 8^2 or 64 possible ways in which S_0 can be played. For each player some of these plays will yield the same result since there are at most 16 quantitatively distinct outcomes. Using the a priori relationships

among the outcomes for S_0 , we can check for each play of that supergame whether any player can secure a better result for himself by adopting a different strategy. E.g., we find that (DD,CC) should not be played, since it yields the second player only $w'_1 + w'_2$, whereas he could get at least $w'_1 + z'_2$ by changing from CC to C^+ (assuming the first sticks to DD): (DD,CC) is never a s.eq. in S_0 . Repeating this operation for all possible plays, one finds that none is ever a s.eq. except (DD,DD) — which is always a s.eq. in S_0 — and (D^+, DD) , (DD, D^+) and (D^+, D^+) — which are seq. only given certain preference orderings. E.g., (D^+, D^+) will be a s.eq. only if $W_1 + Y_2$ is not greater than $Z_1 + Z_2$ (for both players). Since the result for both players is $Z_1 + Z_2$ no matter which of these s.eq. is the actual outcome, no player should expect one rather than another to be the actual outcome (if, together with (DD,DD) another of these s.eq. should occur). But, even if there are several s.eq. in S_0 , this indifference does not lead to indeterminacy, since all the equilibrium strategies give rise to the same behaviour pattern for each player, viz., DD, even when both players aim independently at a different s.eq. Hence mutual defection throughout the supergame should be the outcome.

Olson's intermediate groups were characterized by the possibility of conditional strategies: actions were said to be *noticeable*. We have just seen that the kind of coordination that is made possible by the mere availability of conditional strategies is not always sufficient to warrant the expectation of voluntary cooperation in PGP-problems in intermediate groups. Some external source of coordination or organization remains necessary.

However, it is conceivable that the superproblem arises in a context where mere coordination (without selective incentives) through the availability of conditional strategies is possible and sufficient for voluntary cooperation. The existence of this possibility is the crux of Taylor's argument to the effect that, even when PGP-problems always give rise to PDs, it does not follow that the state is "necessary".

Consider the supergame S_1 (also based on S) where the two players can choose only from the set of strategies ((C^+, D^+, CC, DD)). We know that, where it can be, (DD, DD) will always be a seq., and that (D^+, DD) , (DD, D^+) and (D^+, D^+) may sometimes be s.eq. But in S_1 there will sometimes be yet another s.eq., viz., (C^+, C^+) , when for both players $X_1 + X_2 > Y_1 + Z_2$. Moreover, if (C^+, C^+) is a s.eq. in S_1 , it is Pareto-superior to any other s.eq. in S_1 , since $X_1 + X_2 > Z_1 + Z_2$. Hence, if (C^+, C^+) is a s.eq., one should have mutual cooperation throughout S_1 : for if both players adopt

C^+ , the behaviour pattern of each will be CC.

S_1 is a simplified version of the supergame Taylor uses against the argument against anarchy. It is therefore instructive to point out that S_1 is but one among the many supergames that can be based on S. The important thing about S_1 is that neither of the unconditional strategies CD and DC is admitted, although it is easy to show that if CD is available to one or both of the players, (C^+, C^+) cannot be a s.eq. Suppose e.g. that Player 2 counts CD among his available strategies, and expects the other to play C^+ . He will *not* find it profitable to choose CD rather than C^+ only if $x'_1 + x'_2 \geq x'_1 + y'_2$ — but, since $y' > x'$, this cannot happen, so that the player who expects the other to choose C^+ will choose CD himself.

If the supergame is of definite length, the non-availability of unconditional strategies is fairly inexplicable: they are a priori selections of possible behaviour patterns — if a pattern is impossible in a given context, this fact will affect both the conditional and the unconditional strategies that give rise to it; but if it is possible, the unconditional, but not necessarily the conditional strategies, that may result in it, are eo ipso possible too. The conditional strategies require additional information that may not always be available. Thus, although S_1 solves the dilemma, it lacks plausibility as a model of real life situations unless we can get round the difficulty mentioned here. It is not necessary to do so by postulating an infinite series of PGP- problems (as Taylor does, mostly for the sake of mathematical elegance): finite series of unknown length are equally good. In any case, even within *intermediate groups*, the *solution of PGP-problems through cooperation seems to hold only* for a limited class of public utilities, viz. those which people perceive as giving rise to an indefinitely long series of PGP-problems.

Note, by the way, that, even if we consider only the set of conditional strategies $((C^+, D^+, C^-, D^-))$, mutual cooperation should not be expected: this supergame may well have a s.eq., but if it has one, it will be (D^+, D^+) , i.e., mutual non-cooperation throughout the game. But strategies of the kind of C^- or D^- are not considered by Taylor: he finds them psychologically improbable.

Olson's latent groups allow no conditional strategies of the kind Taylor uses. If both players can choose only from the set $((CC, CD, DC, DD))$, there is only one s.eq., viz., (DD, DD) . Such a group should not provide itself with its public goods.

3. *Collective Action, Rational Self-Interest and Altruism.*

From the preceding discussion it appears that Taylor's arguments concerning the possibility of voluntary cooperation in PGP-problems fail to make much of a dent in the case against anarchy. Contrary to Taylor's claim, Olson's discussion of large groups presupposes that PGP is seen as a recurring problem. One may doubt — with good reason — that the analysis of the superproblem in terms of the supergames is a dynamic analysis, since after all each player is supposed to make but one decision at the outset of the game, viz., which strategy to choose in the supergame; but the same doubt applies to Taylor's analysis, which is indeed an analysis of a PD supergame. A dynamic analysis would require that we take into account the possibility of information (or of changes in preferences) which might induce an agent to change his plans — to reconsider the situation and make a new decision. But knowledge of this kind, available only through a process of learning by trial and error, was not considered in the logical approach to collective action.

When Taylor argues that, if the problem of PGP is seen as recurrent, then, under certain circumstances, voluntary cooperation is rational for all players, we must concede this (cf. the supergame S_1), but we must also insist that this possibility arises only in intermediate groups. Unless Taylor can argue that latent groups do not exist or are somehow irrelevant, his analysis establishes a point nobody should wish to deny. He stresses rightly that "it is on the possibility of using *conditional* strategies that voluntary cooperation of all the players turns." (p. 11), but fails to note that this possibility is *per definitionem* not available to the members of the latent group. He is content to say that "because not all [conceivable] strategies are considered, my analysis is incomplete", but adds that the strategies he does consider "include those most likely to be considered, at least at a conscious level, by real players" (p. 32f) But the possibility of conditional strategies does not depend on the most likely content of the conscious deliberations of the players, but on the availability of reliable and relevant information about the behaviour of others, i.e., on whether the group is "intermediate" or "latent". Of course, any individual may wish to collect for himself or all or some others the information required for conditional strategies, but this is likely to be a costly proposition, which does not pay in terms of PGP if most other members of the group do not take the trouble of collecting or processing that information.

In this context it should be noted that Taylor argues that, if the relevant information is not readily available, "a central coordinating

agency may be useful in establishing a convention more quickly and less painfully than it would establish itself ‘spontaneously’”, but that “this is not an argument in favour of government; for such an agency need have no coercive power, and need only be ad hoc and temporary.” (p. 128, n. 10) But although it is true that such an agency without coercive powers is sometimes sufficient, the fact is that, in a latent group, no such agency exists, and that its creation is itself a PGP. The purpose of such an agency is indeed defeated when it reserves its information for its paying customers only, for then the latter have to bear all the costs while denying the others the possibility of using conditional strategies : such a policy would be counter-purposive. The creation of such an agency, which would make voluntary cooperation possible (but not certain), by transforming a latent into an intermediate group, gives rise to the question whether the agency will emerge as the result of voluntary cooperation or as the result of selective incentives (possibly including coercion). As Olson has noted, the situation is different in a previously organized group where the apparatus for sustaining collective action already exists.

What about Taylor’s thesis that the connection between PGP in large groups and the occurrence of the PD is not “as simple as Olson and others have argued.” ? (p. 10) We have seen that Olson’s group types can be generated within the logic of collective action without reference to group size, but it is true that, for the purpose of constructing an empirical theory of collective action, Olson assumes that group size is a relevant, and indeed an important, basis for making conjectures about the type of the group. More than once however, he warns that, as far as the logic of collective action is concerned, the relation between “group size” and “number of individuals” in the group is not an identity : “The ‘size’ of the group...depends not only on the number of individuals in the group, but also on the value to each individual of the collective good” (i 23) He explicitly rejects (p. 49n) the easy route of ruling out all exceptional cases by defining all groups that could provide themselves with some amount of a collective good as “small groups” and opts for the “surely reasonable” *empirical* hypothesis (“to which there may be exceptions”) that the total costs of the collective good wanted by large groups are high enough to exceed the value of the small fraction of the total benefit that an individual in such a group would get.

Another empirical hypothesis is that the number of members of a group affects the “noticeability” of the individuals’ actions. It is on the basis of considerations of this kind that Olson concludes that

large groups are latent. But this too is an empirical hypothesis, not a theorem of the logic of collective action : Olson does not *derive* it from the defining properties of public goods or of large groups, he is merely arguing that it is a reasonable hypothesis. Thus, Olson uses the logic of collective action to *explain why*, given that they are latent, large groups need selective incentives to induce cooperation; but he does not, and cannot, use it to *prove that* large groups are latent.

The application of a tautological structure like the logic of collective action to the real world raises a number of problems which are relevant to our appreciation of the case against anarchy. It is extremely difficult — not to say ; impossible — to establish whether a given group's members have preference structures of the kind required for a group of given type. Apart from formal constraints, the logic of collective action imposes no restrictions on the factors (value-dimensions) that may enter into an agent's *utility* : it is a tautological structure. Hence its central concept of computational rationality is empirically empty, since it is not (and, for the purpose of constructing a logic of collective action, should not be) specified where we have to look, nor what we have to look for, in order to check whether a given utility assignment is true. But even if we were able to measure utility (independently of observing the behaviour which the agent's utility is said to "explain"), and could do so for every agent in the group, this would not suffice to answer the question how the group would behave : it would also be necessary to find out how each individual views his fellows, what he thinks their preferences are, how they will respond to the situation, etc. The usefulness of the logical theory resides in the fact that it provides us with conditional statements relating expectations and PGP.

Individual preferences in themselves being inaccessible, the social scientist who would wish to make exact predictions about the "behaviour" of groups would face an impossible task if he had to ascertain the preferences of each individual. The situation is different, however, for those with an empirical interest in *kinds of patterns*. Olson's endeavour provides a good example : arguing, on independent grounds, that large groups tend to be latent, he can use the logic of collective action to explain why their members will not voluntarily cooperate in PGP. He argues on the basis of empirical considerations for a hypothesis concerning a given group which is not testable in any direct way, and then derives a testable hypothesis concerning the manner of PGP in that group (unilateral production, bargaining, coordination, organization, selective incentives), should it provide itself with public goods^{1 2}. This is quite in accordance with

the recommendations of F. A. Hayek : theories of social structures, he wrote, are “confined to describing kinds of patterns which will appear if certain general conditions are satisfied, but can rarely if ever derive from this knowledge any prediction of specific phenomena... The prediction of the formation of this general kind of pattern rests on certain very general factual assumptions (such as that most people engage in trade to earn an income, that they prefer a larger income to a smaller one,..., etc. — assumptions which determine the scope of the variables but not their particular values); it is, however, not dependent on the knowledge of the more particular circumstances which we would have to know in order to be able to predict for instance the price and quantities of particular commodities... Predictions of a pattern are nevertheless both testable and valuable. Since the theory tells us under which general conditions a pattern of this sort will form itself, it will enable us to observe whether a pattern of the kind predicted will appear... It is not really surprising that the explanation of merely a sort of pattern may be highly significant in the field of complex phenomena... The fact is that in studies of complex phenomena the general patterns are all that is characteristic of these persistent wholes which are the main object of our interest, because a number of enduring structures have this pattern in common and nothing else.”¹³

The “very general factual assumptions” on which Olson bases his hypothesis that large groups tend to be latent include the assumption that social agents in large groups tend to be characterized by rational self-interest. Since this concept brings “human nature” into the discussion — the central target of Taylor’s third argument — I should perhaps add a few comments on its role. Rational self-interest has a formal and a material component : the former, self-interest (or *non-tuism*)¹⁴, denies that an agent’s utility is a function of the interests (pay-offs, utilities) of those he is dealing with (i.e., his opponents in the game); the latter component, “rationality”, is not fixed, but must consist in the specification of goods and evils. Non-tuism is not the same as, but may be strengthened into, egoism : the egoist’s utility is a function *only* of his own interests. The material component states that men are rational creatures whose actions cannot be explained merely in terms of their beliefs and desires, since they have the capacity to ask of each of their conscious beliefs and desires whether they are irrational (forbidden by reason) or not (allowed by reason), and to make their actions independent of irrational desires and beliefs. No rational person will avoid a good unless he has a reason (unless he believes that his avoidance will produce a greater good or avert an evil which has greater disvalue

than the good he avoids has value), no rational person will seek an evil unless he has a reason (unless he believes he will thereby avoid a greater evil or produce a good which has more value than the evil he seeks has disvalue). A personal good is a good which no rational person will avoid unless he has a reason; a personal evil is an evil which no rational person will seek unless he has a reason¹⁵. The material component of rational self-interest is the pursuit of personal goods (life, ability, health, knowledge, freedom, opportunity, wealth, pleasure, self-esteem,...) and the avoidance of personal evil (death, pain, disability, loss of freedom or of opportunity or of pleasure). The assumption of rational self-interest becomes theoretically productive when at least some of these personal goods and evils are specified; but it is not necessary that the internal trade-offs among various goods are given to the observer (the social scientist or some other agent, friend or foe). If the assumption is strengthened by the inclusion of the latter specification of the utility functions, the result is that the social agents are conceived as mere behaviour units which are no longer capable of choice, but behave in a predictable manner in response to objective stimuli (e.g., the *Homo Oeconomicus*).

From the point of view of the social scientist the assumption of rational self-interest has the advantage of theoretical productivity and generality, but he cannot maximize both aims at the same time. The more restrictions placed on the utility functions (i.e., the more concrete his model of man), the greater the theoretical productivity but the greater the loss of generality. No behaviour is more predictable than that of *Homo Oeconomicus*, but no predictions are more easily falsified than those derived from the assumption that each person is a *Homo Oeconomicus*.

Other components of an agent's motivation are no less real than the pursuit of personal goods and the avoidance of personal evil, but at least when studying large scale social phenomena, we shall find them to be too irregular and beyond the scope of available investigative techniques. With regard to such complex phenomena, we cannot but impute *abstract reasons for kinds of actions*, and these imputations should be based on *publicly available data* if they are to have any value from the point of view of rational criticism. The public availability of data in the social sciences more often than not refers to the knowledge available to the social agents and not just to the social scientists: the imputation of abstract reasons for kinds of actions is as essential to the planning of the agents' actions as it is to the explanations of the social scientists. This is so because this planning rests on expectations concerning the way other people will behave, which means that in any social system which is not

completely breaking down some plans must call for actions which conform to the expectations underlying other plans. It is hardly conceivable that this could ever happen if it were not the case that the correspondence among various individual plans and expectations results from a rational response to the experience of the same facts¹⁶. It is clear that the social scientist should pay more attention to the manner in which human agents construct *their* view of their situation than to the "objective" — i.e., his own — view of their situation. When he makes the transition from the logic of collective action to the theory of collective action, the scientist can no longer ignore how human agents acquire the knowledge they need in order to plan their actions.

The assumption of rational self-interest is an important part of the answer which makes the transition from logic to theory possible. It seems that without it little sense can be made of large scale social phenomena, such as collective action or inaction in large groups. In large groups human agents are probably more at a disadvantage with regard to knowledge of their fellow members' preferences and expectations than the social scientist who may have the time and resources to investigate the full range of attitudes in the group. The average group member — at least if he is minimally choice-conscious — is just as much in need of imputing abstract reasons for kinds of actions as the social scientist, but then he too should have some idea of what the others in the group consider to be good or evil; and, although he will probably know that they may all have quite complex and idiosyncratic motivations, he will normally have no reason to believe that they will avoid one of the goods no rational person will avoid or that they will seek some personal evil. He will consider them to be rational persons. Moreover he will usually have no reason to believe that they will accord him or each other such exceptional consideration as they would accord a personal friend or relative or someone they depend on or are liable for. He will consider them to be self-interested as far as their group behaviour is concerned, and he will have little reason to believe that they will consider him in a different light. He will expect them to be rationally self-interested within the bounds of morality, but not in the sense that they all pursue the same moral ideals: it is one thing to postulate that no man will avoid a good, but quite another to postulate that there is a good all rational men will seek. Thus, although it would be false to consider rational self-interest to be a universal law of human nature, it is both for the social scientist and the human agent in a large group, a reasonable assumption for arriving at rational expectations.

Olson's preoccupation with a testable theory of collective action is illustrated by his decision to restrict the reference of the term 'selective incentives' to economic and political incentives: material goods and services (positive incentives) and the coercive deprivation of such goods or services (negative incentives). He gives three reasons for this choice: 1) it is not possible to get empirical proof of the entire motivation behind any person's actions, so that a reliance on other explanations "would make the theory untestable" (p. 61n); 2) no such explanations are needed, since in all cases to which he has applied the theory there are sufficient explanations on testable grounds; 3) most groups that do succeed in starting some form of collective action explicitly appeal to the self-interest of their members. On the other hand, Olson takes great pains to point out that the only aspect of these incentives which is relevant for explaining collective action is that they are private goods or utilities. To the extent that the social, psychological, erotic or moral incentives that one might oppose to economic and political incentives share this characteristic of privateness, to that extent they are compatible with the assumption of rational self-interest. They are covered by the abstract theory, but rather useless for the purpose of testing that theory. In other words, Olson advocates that, if the collective action by a large group cannot be explained in terms of economic and political incentives, it will in general be wiser to reject the hypothesis that that particular large group was latent, than to immunize it by referring to other kinds of selective incentives, the presence or absence of which cannot be empirically demonstrated.

By disentangling the logical and empirical components of the theory of collective action, we can see that Taylor's first argument, which in effect consists solely in a proof that it is logically possible that a PD does not arise in PGP-problems in large groups, amounts to no more than a heavy-handed attempt to demonstrate the obvious. At least his criticism of Olson misses the crucial problem, which is empirical, not logical, concerned with the acquisition and distribution of knowledge, not with individual preferences.

Does Taylor's argument have any force against the traditional case against anarchy? I do not think that anyone has ever seriously defended the view that anarchy would be out of the question in each and every logically possible world in which individual preferences would conform to the formal constraints of utility theory. Yet this is precisely the force of Taylor's argument. People who argue that, human nature being what it is, anarchy could not work, need not go on to assert that human nature could not be otherwise. Thus, Hart¹⁷ says that sanctions are a *natural necessity* in human society and

adds : "It is a truth of some importance that for the adequate description of law, and of many other social institutions, a place must be reserved, besides definitions and ordinary statements of fact, for a third category of statements : those the truth of which is contingent on human beings and the world they live in retaining the salient characteristics which they have." (p. 195) For Hart these salient characteristics were : 1) human vulnerability, 2) approximate equality, 3) limited altruism, 4) limited resources, 5) limited understanding and strength of will. These conditions, Hart claims, "afford a reason why" men should accept some coercive institutions in their society, but they "might have been, and might one day be otherwise" (p. 190).

It is on these sorts of truths about the human condition that the case against anarchy rests. Fear, uncertainty and fallibility are part of the human condition because there are real dangers, because there are other men, because man is a rational animal who must bear ultimate responsibility for his decision to act on a given belief or desire.

Taylor does not question these truths, but he argues, in his third argument, that the activities of the government or state at the very least exacerbate the conditions which inhibit voluntary cooperation. Considering how governments and states are actually run, we need not quarrel with this indictment. However, the case against anarchy has long ceased to be an apology for existing states, and must be seen as a statement to the effect that there are principles of good government. I shall return later to this crucial question¹⁸ : here I must consider Taylor's explicit claim that the conditions or general facts upon which the argument against anarchy rests would not hold if they had not been created by the state. If we look again at Hart's list, we find that this can be true only to a limited extent. Surely, it is not true that before the invention of government men were either invulnerable or totally vulnerable, either much more unequal or perfectly equal, that they had unlimited resources or no resources at all, unlimited understanding and strength of will or no understanding and strength of will at all. Taylor argues his case solely on the basis of the effect of government or state action on man's capacity for unselfishness : the state makes men more selfish, without the state they would not be selfish at all. He attacks the view "that each individual is characterized by a certain combination of egoism and some form of altruism" (p. 129), that this characterization does not change with time, and that the facts which make it true are independent of the individual's social situation. I doubt that this is what is meant by those who maintain that human nature is

characterized by limited altruism, but here I shall be concerned mainly with the question what kind of altruism would be required to overcome the problem of PGP in large groups.

We should note first that, as Taylor understands the term, altruism is incompatible with non-tuism, and hence with the assumption of rational self-interest, but that the common use of that term is quite compatible with that assumption. His altruistic players (introduced in chapter 4 of his book) maximize a utility which depends both on their own pay-offs and on the pay-offs (even utilities) of the other players with which they engage in interaction. But it is quite consistent with the assumption of rational self-interest that a player seeks to maximize his own pay-off while intending to share his own winnings with others. In fact, it may be that *egoism* is an appropriate assumption for explaining the agent's behaviour in some context of action, even though he intends to donate all his winnings to somebody else. Taylor's "altruism" refers to such cases as that of the employee playing cards with his employer and letting him win in order to curry favour with him : in that case the employee's moves in the game cannot be understood except in terms of his "maximizing a utility that depends both on his own pay-off and on his opponent's pay-off" (on his "altruism" in Taylor's sense, his *tuism*), although in the wider context in which the card-game is played, the employee's behaviour is still selfish or non-tuistic. We shall have occasion to see that the relevance of altruism and egoism, and of their combination in the character of individuals, for the solution of PGP-problems is not as simple as Taylor seems to believe.

Olson denies that his concept of a latent group rests on the assumption of "selfish, profit-maximizing behaviour that economists usually find in the market-place" (p. 64) (but note that most people in the market place behave in accordance with moral rules, the laws of the land and the customs of the trade : behaviour in the market place is selfish within the boundaries of the limited altruism Hart and others ascribe to human nature, and does not exclude the possibility that profits made on the market may be used for altruistic ends). He argues that "the concept of a large or latent group ... holds true whether behaviour is selfish or unselfish, so long as it is strictly speaking 'rational'. Even if the member of a large group were to neglect his own interest entirely, he still would not rationally contribute toward the provision of any collective good, since his own contribution would not be perceptible... The argument about large, latent groups, then, does not necessarily imply self-interested behaviour... The only requirement is that the behaviour of individuals in large groups or organizations of the kind considered

should generally be rational, in the sense that their objectives, whether selfish or unselfish, should be pursued by means that are efficient and effective for achieving these objectives". (p. 64f) A rational altruist, Olson seems to say, would rather produce private goods, which he can then direct to where they will do most good, than public goods, since in the latter case his contribution will do no perceptible good to anyone.

It seems, then, that Olson's theory does rule out the possibility of an *extensive* altruism, a group-oriented altruism of one who would not pass up the opportunity to make any improvement, no matter how small, in group welfare. However, an individually imperceptible effect is not an inexistent effect. There is nothing a priori irrational about the behaviour of an extensive altruist as such: it is not irrational to use soap rather than cheaper detergents, for although one's decision to use soap will not significantly reduce water-pollution, it is not irrational to forbear to do what is harmful. Clearly, one should not a priori assume that there are no extensive altruists — but, perhaps, one is entitled to assume that their impact is too negligible to upset the pattern of collective action in large groups. Let us take a closer look at this possibility.

Every person, at least in a society as complex as the present, is a member of literally thousands of groups: even if there is "identification" with one group, there will be no or very little identification with, or even awareness of most of these groups: some of these may be very transient, others will have rather trivial objects, etc. The fact is that practically all of a person's actions may create the conditions in which common interests come to the fore. Most actions produce external effects — often only for a few people, and often only psychic effects which do not affect the abilities or opportunities of an individual — which create common interest groups of people having a common interest either in avoiding or in seeking compensation for these effects, or in trying to make them permanent. This happens all the time. Most of the time, of course, we just swallow the external effects or are content to note that "somebody should do something about them" or resort to unilateral action. In fact, it is a necessary condition for a viable and minimally civilized society that most common interests are never translated in collective action: life would be hell if we could do nothing without provoking collective actions by conflicting groups.

Add to this that most individuals are members of different groups with, at least in some cases, conflicting aims (all workers are consumers, but what is good for the worker, e.g., compulsory job security, is not eo ipso good for the consumer, who is forced to

accept higher prices or lower quality or both), and it will be clear that although group-oriented altruism may occur, it cannot and should not occur as a pervasive characteristic of human nature on a par with the limited altruism which Hart and others have noted (without insisting on a fixed ratio between altruism and egoism, and even less insisting on a clear preference for private over public goods). Group-oriented altruism must be relative to at most a few groups : it is probably contingent on the existence of a relation of "a positive identification with a group", not on the mere fact of having an interest in common with others. But if so, then the problem is to explain the genesis of this relation. If one group becomes the focus of the extensive altruism of so many that its level of PGP contradicts our expectations, we should probably do well to seek an explanation in propaganda, education or possibly mass hysteria rather than in a refutation of the view that people are capable only of limited altruism : it would in any case be wrong to conclude that the members of such an extraordinary group *are* extensive altruists, since no more need be involved than that their limited capacity for extensive altruism is directed towards the same group. (Notice also that even if propaganda and education could successfully focus extensive altruism on the same PGP-problem, e.g. using soap rather than detergents, we have only the elimination of what Simon¹⁹ called "the mechanism of choice" in favour of "the mechanism of influence", and this will hardly ever result in a rational solution of the problem.)

I think we may conclude that extensive altruism is in general incapable of upsetting the pattern of collective inaction charted by Olson's theory. Besides, if it is granted that what is a public utility to one group may be a public disutility to another, we come to see the relevance of the fact that the theory of collective action deals with groups in general, and applies to communities only because these are groups of a certain kind. Taylor, however, does not pay much attention to the trichotomy private/group/general welfare : his anarchism seems to be of the communist, not of the individualist (anarcho-capitalistic) variety. He seems to consider problems of PGP only in the context of the kind of communities which are dear to anarcho-communists (and to Rousseau), viz., those without group divisions or sectional interests. The assumption that when the state disappears mankind will spontaneously regroup itself in such harmonious communities gives some plausibility to the claim that extensive altruism solves the problem of PGP : the scattering of group identifications noted earlier cannot occur, and the focussing of every man's capacity for extensive altruism must be trivial. Moreover,

if an undivided small group is taken as the paradigm of a group in the sense of the theory of collective action, it is very plausible indeed to assume that PGP is a recurrent problem and that conditional strategies of the kind discussed in section 2 are possible. In other words, in an anarcho-communist world voluntary cooperation in PGP-problems need not be considered phantastic, even if individual preferences in single cases are those of a PD.

Now, if Olson's theory rules out extensive altruism (i.e., an extreme form of "tuism"), but not the other forms of altruism which are compatible with the assumption of rational self-interest, should we then conclude that it is this capacity for group-oriented altruism which is inhibited by the activities of governments and states? I think the answer cannot be affirmative, since, even if they were not living under a government, men would still be confronted with the same general facts which provide us, and them, with reasons for regarding other agents as rational self-interested persons — at least as far as their behaviour outside the small, "affective", "face-to-face" groups of family, friends, class-mates, etc., is concerned. Men would still be in the dark about the real choice-environments of most others. But the economists have long understood that given certain basic conditions a society of strangers can function quite well. It is of course true that many kinds of government action may destroy the working of the effective channels of communication which are essential to the coordination of independent individual activity in such a society, and that, if only the government got out of the way, the information transmitted through these channels would be sufficient to allow each individual to act rationally in the pursuit of his own, egoistic or altruistic, ends without introducing chaos into society. But it does not follow that, with governments out of the way, each individual would all of a sudden be in a position to practice extensive altruism. Strangers would still be strangers. It might be that all or most people would develop a strong preference for public over private goods, but this is not the same thing as extensive altruism (which consists in maximizing a utility that is a positive function of the pay-offs or utilities of all other members of the group or community) and would still require effective channels of communication, e.g., a free price-mechanism, in order to allow rational calculation on the part of the members of the society.

Of course, the same general facts, which give plausibility to the assumption of rational self-interest in the context of explaining and of planning actions, do not exclude that men are *not* non-tuists in those settings where they have to deal with people whose interests and preferences they do know. Referring to the general truths about

the human condition, Hume once wrote that "it is, therefore, a just *political maxim that every man must be supposed a knave*, though at the same time it appears somewhat strange that a maxim should be true in *politics* which is false in *fact*".²⁰ This is not, however, a mere counsel of prudence to the effect that we (the citizens? the politicians?)²¹ should prepare for the worst and hope for the best. The contradiction between "true in politics" and "true in fact" which Hume professed to see does not exist: although human nature should not be supposed to be inherently egoistic or non-tuistic, men in their public life in complex societies, simply do not know enough about their fellows to take into account their "pay-offs" or "utilities"; although it may well be that all men, whenever they have such knowledge, do take it into account, it would be foolish, in designing political institutions, to assume that they have knowledge which in fact they do not have. To base political theory on the assumption of rational self-interest is not to accept an assumption about a moral aspect of human nature; rather it is to make an assumption about the economy of individual planning and decision-making under the conditions of interaction and interdependence which characterize large and open societies. If we substitute "stranger" for "knave", everybody but the most xenophobic minds will appreciate the difference.

In an open society, altruistic or benevolent tuistic behaviour, being almost always restricted to a small group of acquaintances whose preferences are relatively well known, is often contrary to the general welfare: "fair" deals (in the sense of distributive justice), replacing rigorous competition among producers, consumers, employers, workers, buyers and sellers, leave the general public out in the cold. The institutionalization of "altruism" in economic and political life, through the replacement of competition by the collusion of symbolic or spiritual families (networks of influence and solidarity based on party-membership, religion, ethnic identity, etc., on an Us-Them view of social relationships) and paternalistic elites, does not signal a victory of human or moral considerations in public space, but rather the stupefying attempt to model public life as if it were private life writ large. Governments, no need to say, have been very instrumental in this process.

Taylor does not give much thought to conditions which must be satisfied before an altruist (in the moral sense) could begin to maximize a utility that depends on the pay-offs or utilities of other people. But he writes that voluntary cooperation in a society of egoistic pay-off maximizers depends on a high degree of awareness of other people's actions: "This requirement of a high degree of

awareness on the part of the conditional cooperators is itself more likely to be met in a small group of players than in a large group — and even more likely in the sort of small community in which people have contact with and can observe the behaviour of many of their fellows and which is fairly static, in the sense that there is little mobility in or out. This is the sort of community which is the ideal of many anarchists.” (p. 93) It appears that the two solutions which Taylor proposes for the problem of PGP in the absence of government can work only in small communities. The reason is the same, whether the solution is voluntary cooperation based on the recognition of rational self-interest by egoistic pay-off maximizers or voluntary cooperation based on extensive altruism : the division of knowledge of particular facts (actions, preferences).

Although Taylor declines to give a positive theory of anarchy, the alternative to the state seems to be some form of anarcho-communism. The main argument is the utopian one that, after the disappearance of the state, human nature will be transformed into a pure social nature. The argument that voluntary cooperation is possible even in a society of egoistic pay-off maximizers is not of much use without the utopian one, since it implies that if in an anarchist society a group of men discover that they have a common interest in setting up a tyranny over all the rest, they might do so voluntarily, or that all people might contribute voluntarily to the setting up of a regular government. That all men would become benevolence itself, if only the state would get out of the way, is surely a phantastic hypothesis, but even if the law that familiarity breeds contempt does not operate in the small community, the anarcho-communist solution raises a number of questions, moral as well as theoretical.

The central problem is not — contrary to what is sometimes thought — the compatibility of social harmony and individual freedom : by no stretch of the imagination can anarcho-communism be considered an individualist creed:there can therefore be no conflict between the two ideals of social harmony and individual freedom within the tradition of anarcho-communist thinking. Nevertheless, the basic problem is one of social control : the conditions which define the anarcho-communist world are so specific, beginning with the condition of the size of the community and up to the conditions of production and distribution, that one may well wonder why they should ever come into existence if not because they are imposed from without, and why they should be able to maintain themselves if not because they constitute the norm for deliberate social control.

Anarcho-communism has contented itself most of the time with

the description of a static "initial position" the distinguishing characteristics of which would somehow turn out to be permanent features of human society. So much has it denied the need for a theory of dynamic social relations that it has dismissed or ignored the economists' analysis of the ways in which free individuals in continuous interaction with others create social order without really trying. Like so many exponents of the socialist revolt of the nineteenth century, the anarcho-communists drew their moral fire not so much from the vision of a society in which the exploitation of man by man would be ended through the rigorous enforcement of rules forbidding exploitative or aggressive acts — leaving men free to act non-aggressively in the pursuit of their own ends — as from the vision of a just society in which all goods would be distributed not *by* the process of free non-aggressive interaction, but *according to* a given scheme of distributive justice. In order to make this possible without the use of force, without government, society would have to be kept very simple : the requirements imposed by that scheme of just distribution, the common or social good, should be clear to all. The transformation of man's social nature, his communism or community-oriented altruism, is then a sufficient condition for ensuring that in all his acts each man would deliberately choose to further the common good. So to choose would be man's highest moral duty, since, as Godwin put it, it is "the most indispensable business of man, to study and promote his neighbour's welfare"^{2 2}. In the small community, this *positive* duty would not be unfulfillable because the epistemic conditions of life in such a community would not inhibit the performance of that duty : "social truth will become obvious"^{2 3}. Just as statist ideologies rely on the sacrificial doctrine of the primacy of the public over the private interest as the standard of all social action, just so the anarcho-communists make the welfare of all the only legitimate purpose of social action.

The facts of social change and cultural dynamics do not, of course, cease to exist merely because one refuses to countenance them : although it is no doubt true that governments are responsible for a good deal of the complexity of modern society, it does not follow that society would not be complex without governments. Indeed, it may be more correct to say that governments are responsible not so much for the complexity of society, as for its chaotic turmoil : in their refusal to acknowledge a complexity that is beyond the direct grasp of human understanding, the leaders of governments and their academic apologists have attempted to impose a chosen order on society and have thereby destroyed the effectiveness of a great many rules the observance of which actually generates social order. These

rules are the rules of political or commutative justice : unlike the rules of social or distributive justice, they do not prescribe the ends which ought to guide men's actions; rather they restrict the means and manners in which men seek to attain their own ends and ideals. These are the rules with which man might hope to master complexity^{2 4}. But the anarchists cannot condemn the state for misapplying its coercion in the enforcement of the wrong kinds of rules, since they share its preoccupation with problems of distributive justice. In the end the socialist impulse wins out : coercion remains the basic safe-guard of the anarchist society and its simple justice; however, it is no longer the sword but the pen and the spoken word which are its main instruments. The force of public opinion and education are deemed to be sufficient for "policing" the new society. But here too we find a disquieting disregard for the dynamics of such eminently social phenomena as public opinion and education : why should these always remain *in focus* on the true conditions of social simplicity and mutual benevolence ? They are themselves social processes and therefore just as likely to introduce complexity and other forms of novelty as any other.

The same question plagues the theories of libertarian anarchists (e.g., the anarcho-capitalists). Proponents of these theories accept the need for coercion, but claim that this need will be met on a free market for police-agencies. In contrast to the anarcho-communists, with their ruling passion for distributive justice, the libertarian anarchists point to the precepts of natural law (an ideal of commutative or political justice), but they fail to provide a theoretical explanation of the crucial fact that free market forces will keep the privately owned police-agencies as close to the enforcement of natural law as is possible, or as is required for making anarchy an attractive alternative. For Adam Smith, as for David Hume, adherence to the "rules of justice" was a precondition for — not a result of — free interaction.

Against the anarcho-communist "solution" of the problem of social control one should pit J. S. Mill's eloquent warning concerning the tyranny of public opinion, exercised by society itself : "Society can and does execute its own mandates; and if it issues wrong mandates instead of right, or any mandates at all in things with which it ought not to meddle, it practises a tyranny more formidable than many kinds of political oppression, since, though not usually upheld by such extreme penalties, it leaves fewer means of escape, penetrating much more deeply into the details of life, and enslaving the soul itself. Protection therefore, against the tyranny of the magistrate is not enough; there needs protection also against the

tyranny of the prevailing opinion and feeling..."²⁵ Orwell too used the argument, specifically against the anarchists, but probably no critique of the very processes by which the community offers to protect the individual against the impersonal character of life in a large, complex society of strangers, has been quite as devastating as Richard Sennett's analysis of "destructive *Gemeinschaft*"²⁶. The theme is, of course, an old one. Pericles, in the Funeral Oration, commended the Athenians for their consistency in the respect for freedom: "the freedom which we enjoy in our government extends also to our ordinary life: far from exercising a jealous surveillance over each other, we do not feel called upon to be angry with our neighbour for doing what he likes."²⁷ This essential condition of "civil" or "urban" — as against what we, disregarding the etymology of the term, should call "political" — liberty of the Athenians stands in marked contrast to Taylor's ideal anarchist community, "in which people can observe the behaviour of many of their fellows".

When Mill wrote that "there is a limit to the legitimate interference of collective opinion with individual independence", and added that "to find that limit, and maintain it against encroachment, is as indispensable to a good condition of human affairs as protection against political despotism"²⁸, he made quite clear that the quest for principles of good government, and for adequate institutional arrangements which could embody and safe-guard these principles, is as relevant for a system of social control using the word as it is for one using the gun. As long as there is no reason to assume that the social processes which orient the use of coercion will spontaneously and appropriately discriminate between the right and wrong uses of coercion, whether external or internal; as long as there is no satisfactory theory of the self-maintaining and self-regulating capacity of anarchist society, the argument against anarchy retains its force.

NOTES

¹ Michael Taylor, *Anarchy and Cooperation*. John Wiley & Sons, New York, 1976.

² This interpretation of the argument against anarchy refers to a particular interpretation of the natural law concept, viz. one

according to which natural law is not the same thing as moral law : it does not supply criteria or principles of just action, but criteria or principles of just (positive) law. Moral law qualifies certain actions as immoral, natural law provides an answer to the question under what conditions and in what circumstances an immoral act is nevertheless permissible. Natural law is the body of principles which can excuse the intentional commission of an immoral act. Insofar as it is of the essence of a government to be always committing or threatening to commit immoral acts (such as to deprive people of their life, liberty or property), natural law is primarily the totality of principles of good government.

³This is particularly true in connection with the question to what extent government is necessary : here technological change and the growth of scientific knowledge are highly relevant factors : they largely determine whether it will be possible to assign property rights in such a way that at least the more important effects of the actions of the user of a certain commodity or resource are reflected in the value of that commodity or resource. Where, because of a lack of knowledge concerning the causal effects of given actions on other goods and persons, or because of the lack of the technology to monitor these effects, the conditions for a spontaneous ordering of social relationships are absent, other forms of regulation must of necessity be used

⁴Individualist anarchism is, of course, an extreme form of libertarianism, since it claims for every individual the right to act freely in accordance with whatever plan he deems to be worth his while, given his knowledge, expectations and values — subject only to rules of just conduct of universal application. The individualist anarchists' arguments do not presuppose a specific epistemic structure for their ideal society. Taylor's arguments, on the contrary, are to the effect that anarchy is viable given a society with a specific epistemic structure : the small community. I think we may take it that when he speaks of anarchy he has in mind something like anarcho-communism or possibly some other form of collectivist anarchism. A libertarian political philosophy cannot, of course, stipulate under what conditions free individuals would end up living if given freedom of action. Nor does it appeal, as Taylor does in the final chapter of his book, to altruism as the basic requirement of anarchist social order. On libertarian anarchism, see e.g., M. & L. Tannehill, *The Market for Liberty* (privately printed : Tannehill, Box 1383, Lansing, Mich.); R. & E. Perkins, *Rational Anarchy* (privately printed : Perkins, 140 Talbot Street, St. Thomas, Ontario, Canada);

M. H. Rothbard, *For a New Liberty*, Macmillan, 1973; Pat Parker : *Individualist Anarchism, An Outline*, London, 1965; a popular introduction to libertarianism is John Hospers, *Libertarianism*, Nash, L. A., 1971. The *locus classicus* of modern liberalism is still F. A. Hayek, *The Constitution of Liberty*, Routledge & Kegan Paul, 1960, but see now also his *Law, Legislation and Liberty* (in three volumes, of which the first two have already appeared). Except for a few remarks at the end of the paper I shall refrain from discussing libertarian anarchism.

⁵ Except, of course, the anarcho-communist way.

⁶ Hobbes, for instance, did not require the Sovereign to coerce his subjects to cooperate in a PD (almost any exchange of one good for another exhibits the preference structure of a PD), but only to coerce them to *perform their covenants made*. The two cases are not equivalent; see my "The Uses of Coercion" (forthcoming).

⁷ For reasons of space, the final section will be published separately, under the title "The Uses of Coercion".

⁸ Mancur Olson Jr., *The Logic of Collective Action : Public Goods and the Theory of Groups*. Harvard University Press, 1971 (second edition, with an appendix). On the theory of public goods, see also e.g. J. M. Buchanan, *The Demand and Supply of Public Goods*. Rand McNally, Chicago, 1968; and in direct connection with problems of political philosophy : J. M. Buchanan, *The Limits of Liberty : Between Anarchy and Leviathan*, Chicago, 1975.

⁹ Cf. I. M. Kirzner, *The Economic Point of View*. Sheed & Ward, 1976. L. von Mises, *Human Action*. Yale U.P., 1949. J. M. Buchanan, *Cost and Choice*. Rand McNally, 1969.

¹⁰ It is also the only assumption compatible with the game-theoretical analysis of the problem. For this type of analysis presupposes that the individual parties are aware of the interdependence of their actions, i.e., that a man's choice will be determined in part by what he expects his opponents to do. It is of course true that in large groups people do not consider themselves to be interdependent *in this sense* : e.g., in a competitive industry with many competitors, strategies will be based on market prices, and not on expectations concerning the behaviour of individual rivals. Buchanan (*The Limits of Liberty*, pp. 36f) takes this reduced awareness of interdependence as the core of the problem of PGP, the main reason for speaking of "market failure". However, the interdependence continues to exist. This Taylor makes quite clear. In explaining the difference between large and small groups, Olson too

appeals to the extreme “insignificance” of each individual in the large group (Olson, *op. cit.*, p. 62); however, as we shall see, his second explanation of the difference, viz., that large groups will ipso facto not be friendship groups, is much more potent.

¹¹ That is to say : it is not relevant from a purely *formal* point of view, which is still the only point of view I am taking. See below p. 76.

¹² What Olson is interested in is to find an explanation for the fact that most large groups that do provide themselves with public goods do so by using selective incentives (including the selective administration of coercion); he is not defending the policy-recommendation that large groups *ought* to turn to coercion in order to solve their PGP-problems.

¹³ F. A. Hayek, “The Theory of Complex Phenomena”, in his *Studies in Philosophy, Politics and Economics*, London, 1967, pp. 35f.

¹⁴ P. Wicksteed, *The Common Sense of Political Economy*. London, 1933.

¹⁵ Rational men are men with certain psychological, intellectual and physical abilities, which permit them to guide their actions in accordance with general rules. Rational men have desires, even irrational desires, but no rational man will act upon such an irrational desire merely to satisfy it. They also have beliefs, even irrational beliefs, i.e., beliefs which no member of the relevant class has a reason to believe, and which every member of that class has reason to disbelieve. No matter how large the class, there will always be beliefs which it would be irrational for any rational person in that class to believe. But no such person will act on such a belief unless he has a reason. This provides a basis for K. R. Popper’s postulate of the Rational Unity of Mankind (cf., his *The Open Society and its Enemies*, London, 1966, *passim*). On this approach to reason and its relation to morality, see Bernard Gert, *The Moral Rules*, 1970, New York.

¹⁶ F. A. Hayek, “Economics and Knowledge”, in his *Individualism and Economic Order*, London, 1976. G. H. S. Shackle, *Epistemics and Economics*, Cambridge, 1970.

¹⁷ H. L. A. Hart, *The Concept of Law*. Oxford, 1961.

¹⁸ see *supra*, note 7.

¹⁹ H. A. Simon, *Models of Man*, Wiley New York, 1957.

²⁰ In “On the Independence of Parliament”, pp. 117f. in T. H. Green & T. H. Grose (eds.), *David Hume : The Philosophical Works*.

London, 1882 Vol. 3.

²¹Hume was, of course, saying that every politician ought to be supposed a knave.

²²William Godwin, *Enquiry concerning Political Justice*. Bk. Ch.

²³*Op. cit.*, Bk. VI, Ch. 7.

²⁴F. A. Hayek, "Rechtsordnung und Handelsordnung", "Arten der Ordnung", "Bemerkungen über die Entwicklung von Systemen von Verhaltensregeln", all in his *Freiburger Studien*, J. C. B. Mohr, Tübingen, 1969. (Cf., *op. cit.* in n. 13).

²⁵J. S. Mill, *On Liberty*, Introduction (p. 220 in J. M. Robson (ed.), *Essays on Politics and Society by John Stuart Mill*, Toronto & London, 1977).

²⁶R. Sennett, *The Fall of Public Man*, Cambridge, 1977, Part 3, 4 and Conclusion.

²⁷Thucydides, *The Peloponnesian War*, Cf. the translation by Crawley.

²⁹J. S. Mill, *loc. cit.*