

THE THEORY OF COLLECTIVE ACTION : A CRITIQUE.

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BEEN PREVIOUSLY SUBMITTED FOR ANY OTHER DEGREE OF THIS OR ANY OTHER
UNIVERSITY. TO THE BEST OF OUR KNOWLEDGE THIS IS A BONAFIDE WORK.*

*WE RECOMMEND THIS DISSERTATION BE PLACED BEFORE THE EXAMINER FOR
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TO MY PARENTS

C O N T E N T S

	PAGE
ACKNOWLEDGEMENTS	II
INTRODUCTION	1
CHAPTER - 1	
THE THEORY OF COLLECTIVE ACTION AND ITS IMPLICATIONS	8
CHAPTER - 2	
CRITICISM OF THE THEORY	20
CHAPTER - 3	
CRITICISM OF THE IMPLICATIONS	49
CHAPTER - 4	
SUMMARY AND CONCLUSIONS	58
SELECT BIBLIOGRAPHY	61

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(M. HIMADEEP REDDY)

INTRODUCTION

(Human beings, by virtue of their social existence, share certain common interests. Common interests can at times be achieved only through collective effort. The question that arises then is whether the mere existence of a common interest is enough to motivate collective action on its behalf. For a long time it was assumed to be so. That assumption underlay many important theories in the social sciences(1). The pluralist conception of democracy for example was based on such an assumption. In a plural society, people with common interests would come together to fight for their interests. Public policy would be the outcome of this interplay of various interests. A belief in the beneficial outcomes of such a struggle implicitly assumed the automatic translation of common interests into collective action aimed at realizing those interests (2).

The Theory of Collective Action challenges that assumption. It asserts that collective action to further common

1 For a summary of such theories see, Mancur Olson, Jr., The Logic of Collective Action: Public Goods and the Theory of Groups (Cambridge: Harvard University Press, 1965), p. 1.

2 Ibid., p. 112. See also John Kenneth Galbraith, The Anatomy of Power (London, 1985), p. 81.

interests is impossible except under some special circumstances (3).

Since this theory was first generalized by Mancur Olson in his book, The Logic of Collective Action - Public Goods and the theory of Groups, it has found its way into various areas of economics, political science and even social psychology (4). In economics for instance it has been used extensively by the Property Rights, Game theory and Public Choice schools.

For the Property Rights school(5), it illumines 'the tragedy of the commons'(6) showing how the presence of common property rights is destructive of a common resource. Common property rights structure incentives in such a way that an individual finds it rational to overexploit the resource and irrational to invest in its maintenance. A regulatory organization to enforce proper utilization of the resource or the institution of private property resources are seen as solutions to

3 Olson, n. 1, p. 2.

4 See R. M. Dawes, "Social Dilemmas", Annual Review of Psychology, vol. 31 (1980), pp. 169-93 and G. Platt, "Social Traps", American Psychologist, vol. 28, (1973), pp. 641-51, for its applications in social psychology.

5 A review of the literature on the Property Rights School can be found in E.G. Furubotn and S. Pejovich, "Property Rights in Economic Theory: A Survey of Recent Literature", Journal of Economic Literature vol. 10 (1972), pp. 1137-62; see also A.A. Alchian and H. Demsetz, "The Property Rights Paradigm", Journal of Economic History, vol.33 (1973), pp. 16-27.

6 G.R. Hardin, "The Tragedy of the Commons", Science, vol. 162 (1966), pp. 1243-8.

the problem. These however are akin to common interests in being public goods and hence are susceptible to the same impossibility condition.

Game theorists(7) formalize the collective action problem in terms of the Prisoner's Dilemma(8). The Prisoner's Dilemma again depicts a situation in which there is a divergence between individual and collective rationality. The applicability of the Prisoner's Dilemma game to collective action problems has been contested of late and the Assurance problem(9) which incorporates 'expectations' and leads to radically different outcomes, proposed as a better model.

7 Game theory was created by John Von Neumann and Oskar Morgenstern. On Game Theory see R.D. Luce and H. Raiffa, Games and Decisions : Introduction and Critical Survey (New York, 1957).

8 See Russell Hardin, Collective Action (Baltimore, 1982), p. 25, for a treatment of the Collective Action problem as a Prisoner's Dilemma.

The Prisoner's Dilemma refers to a game in which the police do not have enough evidence to convict two prisoners accused of a major crime. They however have enough to convict them on a lesser charge. The prisoners are then kept separately and each is given the option of squealing on the other and getting off with a light conviction while his partner gets a heavy one. The rational strategy then for each prisoner separately is to confess. This outcome however is clearly suboptimal to the outcome when both of them do not confess.

9 C.F. Runge, "Institutions and the Free Rider : The Assurance Problem in Collective Action", Journal of Politics (Florida), vol. 46 (1984), pp. 154-81.

Public choice(10). theorists emphasize the importance of private motivations behind the functioning of public institutions. By showing how collective interests are a weak force in driving a collective organization like the Government, the Theory of Collective Action undermines Government's traditional image as a deus ex machina and in doing so complements work in Public Choice.

Political science has hardly lagged behind in its usage of the Theory of Collective Action(11). International Relations applies this concept to understand among other things the working of International Organizations, burden sharing in such organizations and the necessity of a hegemonistic leader for the maintenance of free trade in the world(12).

- 10 For a survey, see D.C. Mueller, Public Choice (Cambridge, 1979). Also see Iain Mclean, Public Choice : An Introduction (Oxford, 1987).
- 11 For an interesting application see S.L. Popkin, The Rational Peasant : The Political Economy of Rural Society in Vietnam (California, 1979).
- 12 J. Gowa, "Public Goods and Political Institutions : Trade and Monetary Policy Processes in the United States", International Organization (Cambridge, Mass.), vol. 42 (1988); C.P. Kindleberger, "Dominance and Leadership in the International Economy : Exploitation, Public Goods and Free Rides", International Studies Quarterly (California), vol. 25 (1981), pp. 242-54; M. Olson and R. Zeckhauser, "An Economic Theory of Alliances", Review of Economics and Statistics (Cambridge, Mass), vol. 48 (1966), pp. 266-79.

Going back in history Karl Marx exhibited an understanding of this issue when he discussed the importance of a feeling of 'solidarity' in helping the workers overcome the conflict between their immediate, individual and long term, collective interests(13). If the applications of the theory are pervasive, its implications are even more so. Mancur Olson in his second book The Rise and Decline of Nations : Economic Growth, Stagflation and Social Rigidities(14) extends his 'logic of collective action' to offer new perspectives on phenomena ranging from the rapid economic growth of some countries and the stagnation of others, to the existence of social rigidities like the caste system.)

13 See Tom Bottomore and others, ed., A Dictionary of Marxist Thought (Oxford, 1983), p.80.

For an interesting interpretation of class consciousness in terms of the collective action problem see Jon Elster, An Introduction to Karl Marx (Cambridge, 1986).

For an account of why class action as predicted by Marx will fail to come about see Olson, n. 1.

14 Mancur Olson, The Rise and Decline of Nations : Economic Growth, Stagflation and Social Rigidities (New Haven, 1982).

Any theory which claims so vast an explanatory power deserves to be scrutinized very carefully and that is precisely what this study intends to do.

This study is organized into four chapters. Chapter one reviews the theory and its implications briefly, limiting itself in the interests of manageability to the Olsonian version of these. Chapter two contains the criticism of the theory. It is based on the premise that in theories of this sort the assumptions are as important as the logic itself, for the sheer brilliance of the logic might blind people to the restrictiveness of the assumptions(15). Available experimental evidence is examined to show how the crucial prediction of free-riding has only a tenuous link with reality. Only two possibilities can explain the discrepancy. Faulty reasoning from the premises to the conclusion or unreal assumptions. An examination of both reveals the latter to be the crucial flaw. The incorporation of less restrictive and more realistic assumptions is shown to lead to results more consistent with experimental evidence. The important implications of the theory are examined in Chapter three but the major emphasis

15 For an argument regarding why the unreality of the assumptions might not matter, see Milton Friedman, "The Methodology of Positive Economics", in Bruce Caldwell, ed., Appraisal and Criticism in Economics: A Book of Readings (Boston, 1984), pp. 138-78. For a criticism of Friedman's position, see Ernest Nagel, 'Assumptions in Economic Theory' in Caldwell, *ibid.*, pp. 179-87; also P.A. Samuelson, "Problems of Methodology-Discussion", in Caldwell, *ibid.*, pp. 188-93.

remains on the assumptions. This springs from the belief that 'death at the roots kills the fruit on the branches'(16). Chapter four sums up the arguments and the conclusions that can be drawn from them.

As theories come, the Theory of Collective Action is remarkable for its fecundity. No enterprise of this nature can really do justice to the immense literature it has spawned. As indicated earlier, in the interests of manageability this study confines itself to Mancur Olson's presentation of the theory and its implications. This is an implicit recognition of the seminal nature of his work. However to the extent that subsequent refinements of the theory by others are crucial for its survival, any critique which neglects them runs the risk of being seriously limited(17). Its criticisms and conclusions would be pertinent only to the Olsonian version. That however is a risk that must be taken.

Time and academic deadlines are every researcher's constant companions. Their limiting and disciplining role is acknowledged. Not as an excuse for any inadequacies this work may carry but more as a pointer to the richness of the field left unexplored.

16 The phrase is from Martin Hollis and Edward J. Nell, Rational Economic Man : A Philosophical Critique of Neo-Classical Economics (London, 1975), p. 2.

17 For example, Hardin n. 7, is an excellent work, but since it became accessible only in the later stages of this work, its arguments have not been properly incorporated.

CHAPTER I

THE THEORY OF COLLECTIVE ACTION AND ITS IMPLICATIONS

Introduction

This chapter is divided into two sections: Section 1: The Theory of Collective Action, and Section 2 The Implications of the Theory of Collective Action. It summarizes the major arguments of Mancur Olson detailed in his two books "The Logic of Collective Action : Public Goods and the Theory of Groups"(1), and "The Rise and Decline of Nations : Economic Growth, Stagflation and Social Rigidities"(2).

Section I

The Theory

The Theory of Collective Action asserts that "...rational, self-interested individuals will not act [voluntarily] to achieve their common or group interests(3). For collective action to take place there must be selective

1 Mancur Olson, The Logic of Collective Action : Public Goods and the Theory of Groups (Cambridge, Mass., 1965).

2 Mancur Olson, The Rise and Decline of Nations : Economic Growth, Stagflation and Social Rigidities (New Haven, 1982).

3 Olson, n. 1, p. 2.

incentives(4) of a positive or negative sort(5) or the group must be small. Even in small groups however the optimal(6) amount of the common interests will not be realized.

Common interests are public goods(7) whose distinctive feature is non-excludability i.e. if the good is provided to one,

- 4 "Only a separate and "selective" incentive will stimulate a rational individual in a latent group to act in a group-oriented way. In such circumstances group action can be obtained only through an incentive that operates, not indiscriminately like the collective good, upon the group as a whole, but rather selectively toward the individuals in the group. The incentive must be "selective" so that those who do not join the organization working for the group's interest, or in other ways contribute to the attainment of the group's interest, can be treated differently from those who do." Olson, *ibid.*, p. 51.
- 5 Olson defines a positive selective incentive as "...any reward that leaves an individual who pays his allocated share of the cost of a collective good and receives the reward, on a higher indifference curve than he would have been had he borne none of the cost of the collective good and lost the reward" and a negative one like coercion as "a punishment that leaves an individual on a lower indifference curve than he would have been on had he borne his allocated share of the cost of the collective good and not been coerced." Olson, *ibid.*, p. 51.
- 6 Optimality here refers to Pareto-Optimality.
- 7 Olson defines a public good as "...any good such that, if any person X_i in a group $X_1, \dots, X_i, \dots, X_n$ consumes it, it cannot, feasibly be withheld from others in that group." Olson, *ibid.*, p. 14. For other definitions see P.A. Samuelson, "Pure Theory of Public Expenditure", Review of Economics and Statistics (Cambridge Massachusetts), vol. 36 (1954), pp. 387-90; P.A. Samuelson, "Diagrammatic Exposition of a Theory of Public Expenditure", Review of Economics and Statistics, vol. 37 (1955), pp. 350-56; J.G. Head, "Public Goods and Public Policy", Public Finance, vol. 17 (1962), pp. 197-219; see also D. Snidal, "Public Goods, Property Rights and Political Organizations", International Studies Quarterly, vol. 23 (1979), pp.532-66 for an interesting refinement of the traditional definitions. The literature on public goods is extensive, too extensive in fact to be done justice to in a footnote.

the others in the relevant group cannot feasibly be excluded from it. In a large group, any individual's contribution towards a common interest is imperceptibly small and therefore incapable on its own, of making the crucial difference between achievement and non-achievement of the common interest in question. It is not noticeable(8) either. Hence, in the absence of selective incentives of either a positive or negative kind, there exists little rational basis for any individual to contribute to the achievement of a common interest. His individual contribution is unlikely to make any critical difference and if the common interest is achieved anyway he cannot be excluded from enjoying its benefits. It is therefore possible for him to be better off by finding alternative uses for his contribution. Hence he prefers to free ride on the contributions of others. Being rational and self-interested, every individual in the group follows this calculus. As a result no one contributes and no common interest is achieved or collective good provided.

8 Olson defines noticeability "...in terms of the degree of knowledge, and the institutional arrangements, that actually exist in any given group, instead (sic) of assuming a "natural noticeability" unaffected by any group advertising or other arrangements." Olson, n. 1, p. 46, footnote 67.

Mathematical Illustration of the Logic of Collective Action

Olson illustrates this logic mathematically(10). He starts with the assumption that cost (C) of the collective goods is a function of the level (T) at which it is provided, i.e. $C = f(T)$. He also assumes that the provision of the first unit entails certain fixed costs. As the number of units being provided rises, the average costs fall till a certain level after which they begin rising again because the cost of providing additional units rises disproportionately beyond that point. Average cost curves are therefore 'U' shaped. For the relevant group,

$V_g = TS_g$ where V_g = value of the good to the group
and S_g = 'size' of the group which is a
function of the number of people in
the group and the value they place
on the collective good.

V_i = Value of the good to an individual i.

$F_i = V_i/V_g$ where F_i = Fraction of the
group value that the individual
enjoys.

$$F_i = V_i/V_g = F_i S_g T$$

10 Olson, n. 1, p. 22 and Olson, n. 2, p. 31, footnote.

If A_i is the net advantage to the individual i ,
i.e. the residual of his Value minus his Cost,

$$A_i = V_i - C$$

This changes with the amount of the collective good being provided
so that

$$dA_i / dT = dV_i / dT - dC / dT$$

Where this is a maximum, $dA_i / dT = 0$. Since $V_i = F_i S_g T$ and since
Olson assumes that F_i and S_g are constants.

$$d(F_i S_g T) / dT - dC / dT = 0$$

Therefore $F_i S_g - dC / dT = 0$

This is the quantity "...a unilateral maximizer would buy. This
point can be given a common sense meaning. Since the optimum is
found when

$$dA_i / dT = dV_i / dT - dC / dT = 0$$

and since $dV_i / dT = F_i (dV_g / dT)$

$$F_i (dV_g / dT) - dC / dT = 0$$

$$F_i (dV_g / dT) = dC / dT$$

Thus the optimal amount of the collective good for an individual
to obtain occurs when the rate of gain to the group (dV_g / dT)
exceeds the rate of increase in cost (dC / dT) by the same multiple
by which the group gain exceeds the gain to the individual
($1/F_i = V_g / V_i$). In other words, the smaller F_i is the less the
individual will take, and (other things being equal) F_i must of
course diminish as entry makes the group larger."(11)

11 Olson, n. 2, p. 31, footnote.

Within small groups Olson distinguishes between privileged groups in which at least one individual has an incentive to see that the collective good is provided even if he has to bear the whole cost himself and intermediate groups where individual gains are not high enough for any one of them to provide it on his own but the contribution of each is noticeable enough(12).

While small groups are more successful than large groups at providing themselves with collective goods, they also have a tendency to provide themselves with sub-optimal amounts of the collective good(13). This is because of the non-excludable nature of the public good which entails that each individual cannot appropriate or consume the total benefit from any amount he spends on the collective good. He must necessarily share the benefit with others getting only a part of it in the process.

This will force him to "...discontinue his purchase of the collective good before the optimal amount for the group as a whole has been obtained. In addition, the amounts of the collective good that a member of the group receives free from

12 Olson, n. 1, p. 50.

Large groups where an individual's contribution to group effort is not noticeable are termed as 'latent groups' by Olson. Ibid.

13 Ibid., p. 28

other members will further reduce his incentive to provide more of the good at his own expense. Accordingly, the larger the group, the farther it will fall short of providing an optimal amount of a collective good"(14).

This effect is mitigated where considerable asymmetry of size or interest in the collective good exists among the members. In such groups, however, larger members tend to bear a disproportionate share of the burden. A smaller member has little incentive in such groups to provide additional amounts of the good. This is because in the first place, it is very likely that he will be more than able to satisfy his demand from whatever share he gets free from the additional units provided by the larger one, who by definition, has a greater demand than him. Secondly, since in every additional unit he provides, a major fraction would go to the larger one and a relatively smaller one to him, he has very little incentive to provide additional units on his own. The asymmetry in demand thus leads to "the 'exploitation' of the great by the small."(15)

14 Ibid., p. 35. Emphasis in original

15 Ibid., p. 35. According to Olson such an outcome can be avoided if institutional arrangements ensure that the marginal costs of additional units are shared by members in the same proportion as the additional benefits.

Section 2

THE IMPLICATIONS

Common interests then are a weak force in motivating collective action though the degree of weakness is more in large rather than in small groups. As a result of this difference, and because of the greater scope for selective incentives and bargaining, small groups can organize themselves disproportionately faster than large ones for the promotion of common interests(16).

In democratic societies this advantage enables small groups to exert a relatively greater influence on the political structure. By virtue of the incentive structure they face - benefits concentrated on them and costs diffused over society - the interests of small groups are frequently in conflict with those of the rest of society(17). Thus small groups tend to have powerful incentives to restrict entry into their fields to gain as large a share of the 'exclusive collective good' as possible and to engage in unproductive, zero-sum, redistributive struggles rather than non-zero sum, productive ones(18).

16 Olson, n. 2, p. 41.

17 Ibid., p. 44.

18 Ibid., pp. 44 and 68-69. An exclusive collective good is one in which the individual's share of the total benefit decreases with an increase in group size, while in an inclusive collective good, it remains unaffected.

Since the effectiveness of these groups depends on a time-consuming, consensual mode of decision-making(19), they lack the capacity to respond rapidly to changes in technological or economic conditions. Thus innovations or new economic opportunities are resisted or responded to very slowly(20).

Where these groups are predominant, as in stable societies which have had 'democratic freedom of organization' for a long time, the cumulative effect of their actions is to slow down the rate of growth of the economy(22). As a result of their efforts to influence the political process, such societies come to be characterized by 'a complex regulatory environment', a prominent bureaucracy and a stagnant or declining economy(22).

Conversely, societies which have had these interest group organizations destroyed by political or social upheavals, tend to experience rapid rates of economic growth. The spectacular post-war economic growth of Japan and West Germany can thus be traced to the destruction of their narrow special interest organizations(23). Great Britain's remarkable 'rise and decline'

19 Ibid., p. 58.

20 Ibid., pp. 62-65.

21 Ibid., p. 40.

22 Ibid., pp. 61-65.

23 Ibid., pp. 69-73

beginning with the Industrial Revolution can be attributed to the progressive accumulation of special interest organizations that relative stability has engendered.

Norway, Sweden and Switzerland stand out however, as countries which have enjoyed both economic growth and political stability. Olson's explanation is that Norway and Sweden have had 'encompassing' interest groups - those interest groups which are so large that their interests are coterminus with that of their society - while Switzerland has constitutional provisions limiting the influence of special interest organizations(24).

It is possible to argue like the Pluralist school of thought does that as time passes, stable societies should witness the emergence of organizations representing all possible common interests in society. These organizations would then engage in a process of 'comprehensive bargaining' and arrive at Pareto-efficient outcomes. Public policy would then reflect faithfully the relative strengths of all possible groups in society(25).

24 Ibid., pp. 75 ff.

25 For an argument regarding how any exercise of power creates its own resistance and how as a result modern societies are more or less in equilibrium, see J.K. Galbraith, The Anatomy of Power (London, 1985), p. 80.

Olson however asserts that the Theory of Collective Action explicitly rules out any such 'symmetric' and beneficial outcomes. This is because societies will have some large groups like the consumers, the poor or the unemployed which will never be able to organize as they lack selective incentives and are very large. While all possible interests are not organized, those which are organized, have no incentive to prevent them from benefitting at the expense of the unorganized ones. Symmetric organizations and Pareto-efficient outcomes are thus impossible(26).

26 Olson, n. 12, p. 37.

CHAPTER 2

CRITICISM OF THE THEORY

Introduction

Any critique of the Theory of Collective Action must examine both the logical consistency of the argument and the correctness of its predictions. On grounds of logical consistency alone there is little that can be faulted in the theory. It is internally consistent and it is mostly this consistency that accounts for much of its popularity. When it comes to the question of its predictions however, there is a great deal to be wished for. This chapter seeks to show how available experimental evidence does not support Olson's prediction. It examines the various possible explanations for this failure and attempts to demonstrate that the extreme restrictiveness of his assumptions is the primary reason for this failure. It is divided into two sections. Section 1 deals with the evidence on free riding while Section 2 examines the assumptions of Selfishness and Rationality.

Section 1

The Evidence on Free Riding

Free-riding behaviour is the central assertion of the Theory of Collective Action. Being rational, individuals choose

the most cost effective and efficient means to their goals(1). Being self-interested(2) these goals happen to be only those which benefit them personally. Thus where they have a choice of making or not making an imperceptible contribution to the provision of a collective good, they choose the latter. In other words, they prefer to free-ride on the efforts of others.

Free-riding behaviour has been the subject of many tests. These tests have attempted to confirm its existence and strength. Most of these tests have attempted to replicate conditions conducive to free-riding behaviour, like the imperceptibility of personal contributions, consumption of the good being independent from personal contribution, high

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- 1 Mancur Olson, "The Logic of Collective Action : Public Goods and the Theory of Groups" (Cambridge : Harvard University Press, 1965), pp. 64-65.
 - 2 Olson is not very clear or consistent on the importance of self-interestedness, seeming occasionally to imply that rationality alone is what matters. This however is based on a very broad definition of self-interestedness, and a questionable exclusion of certain forms of altruism. While the issue is dealt with later (see below the sections on the assumptions) for the present this study will stick to his more general usage which assigns an important role to both the assumptions. Ibid., p. 2, and 65; Also M. Olson, "The Rise and Decline of Nations : Economic Growth, Stagflation and Social Rigidities" (New Haven, 1982), footnote, p. 19.



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transactions costs etc. Being experiments testing human behaviour and involving simulations of real life situations these tests are not methodologically unassailable(3). Their conclusions therefore cannot be treated as infallible evidence of the presence or absence of free-riding.

However, to the extent that these experiments have involved a progressive refinement of the methods used and to the extent that as of now they constitute the only source of regular, testable, empirical evidence on free-riding behaviour in human beings, some store can be set by them. To refuse to do so would necessitate a falling back on anecdotal evidence, or subjective perceptions, as proof or refutation of the theory. In that shadowy realm, each person's word is as good as another's and the process itself pushes economics closer to metaphysics rather than science.

One of the earliest experiments testing the free-rider phenomena was conducted by Bohm(4). He divided his subjects into six groups and offered a closed circuit television program as a public good to them. This was done under conditions where they perceived themselves to be part of a very large group. Each group was offered different terms under which they could watch the

3 See O. Kim and M. Walker, "The Free Rider Problem : Experimental Evidence", Public Choice (The Hague), vol. 43 (1984), pp. 3-24.

4 P.Bohm, "Estimating Demand for Public Goods : An Experiment", European Economic Review (Amsterdam), vol. 3 (1972), pp. 111-30.

program. One of these was through voluntary contributions. The other schemes were designed to present strong incentives not to underreport their true preferences.

Bohm's surprising finding was that the amounts offered under the six different schemes did not differ by much. If free-riding was a strong tendency, then the amount offered under the voluntary contributions scheme should have been considerably lesser than the amounts offered under the others. Bohm interpreted his results to mean that the free rider phenomena was not as prevalent as is widely supposed.

In another experiment conducted by Sweeney(5), subjects were given stationary bicycles, connected to a generator of electrical power, to pedal. While the subjects could not observe each other, they could get an idea about the group effort, by means of the brightness of a bulb-placed in front of each one of them. This bulb was illuminated solely by pedal power. The incentive for the subjects involved an increase in their grades. The amount of the increase was related by a formula to the average brightness at which the bulb was maintained.

Sweeney's results indicated that while a mild form of free riding was present, complete free-riding was absent.

5 T.W. Sweeney, Jr., "An Experimental Investigation of the Free Rider Problem", Social Science Research (Baltimore), vol. 2 (1973), pp. 277-92.

Probably the largest number of experiments, under different conditions, were carried out by Marwell and his colleagues(6). They attempted to test free-riding behaviour under a variety of conditions: with skewed distribution of resources and interests, with lumpy public goods, with small groups, with experienced subjects, with high stakes, with giving feedback to the subjects, with non-divisibility of the public good etc.

The basic design of their experiment revolved round providing subjects with tokens which they could invest either for a fixed amount at an 'individual exchange' or for an amount which varied with the contributions of others at a 'group exchange'.

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- 6 (a) G. Marwell and R.E. Ames, "Experiments on the Provision of Public Goods I : Resources, Interest, Group Size and the Free Rider Problem", American Journal of Sociology (Chicago), vol. 84 (1979), pp. 1335-60.
- (b) G. Marwell and R.E. Ames, "Experiments on the Provision of Public Goods II : Provision Points, Stakes, Experience and the Free-Rider Problem", American Journal of Sociology, vol. 86 (1980), pp. 926-37.
- (c) G. Alfano, and G. Marwell, "Experiments on the Provision of Public Goods III : Nondivisibility and Free Riding in "Real Groups", Social Psychology Quarterly, (Washington), vol. 43 (1980), pp. 300-9.
- (d) G. Marwell and R.E. Ames, "Economists Free Ride, Does Anyone Else? : Experiments on the Provision of Public Goods, IV", Journal of Public Economics (Amsterdam), vol. 15 (1981), pp. 295-310.

The earnings from the individual exchange were based on personal contribution only, while the earnings from the group exchange were paid to all according to a certain formula, irrespective of whether they had personally contributed or not. Conditions of a large group and a joint, non-rival, public good were simulated. Their results indicated that "[p]eople voluntarily contribute substantial portions of their resources - usually an average of between 40 and 60 per cent to the provision of a public good. This despite the fact that the conditions of the experiment are expressly designed to maximize the probability of individualized, self-interested behaviour" (7). They concluded that while free-riding does take place, it is nowhere near what is indicated by current economic theory.

Another experiment which consciously strove to correct the methodological errors of the experiments done before it and to use more sophisticated methods to test free riding was undertaken by Schneider and Pommerehne (8). Their subjects were unsuspecting economics students (of the University of Zurich) who were familiar with the free-rider problem. These students were offered a soon-to-be published, highly valued economics text-book, in three phases. Care was taken to see that the conditions of a large

7 Marwell and Ames, n. 6d, p. 309.

8 F. Schneider and W. Pommerehne, "Free Riding and Collective Action : An Experiment in Public Microeconomics" Quarterly Journal of Economics (New York), vol. 96 (1981), pp. 689-704.

group and a public good were created by the introduction of high transaction costs, non-rivalry in consumption of the good, no possibility of exclusion and 'individual recognition of the numerical imperceptibility of their actions'.

Out of the three phases, the first was designed to reveal the subjects' true willingness to pay; the second phase offered the twin possibilities of insufficient voluntary contributions and hence group exclusion from consumption of the good or sufficient voluntary contributions and a copy of the text book to each; the third phase was designed to measure their contributions when there was no possibility of exclusion at all.

The results indicated a progressive decrease in contributions from phase one to phase three, indicating the relevance of the free rider problem, though the extent of free-riding was very 'modest'. Schneider and Pommerehne concluded from their results that their empirical findings were totally at variance with the importance attributed to free-riding in the literature and that there were 'strong forces running counter to the tendency to behave as a free rider.'

Essentially similar findings were reported by Scherr and Babb(9) and Smith(10).

In so far as these results exhibit a consistency, it is in concluding that free-riding is not as dominant a phenomenon as traditional literature postulates it to be. If following Brubaker(11) we distinguish between 'strong' and 'weak' versions of the free rider hypothesis, these studies fail to throw up evidence to prove the 'strong' version, that individuals in a large group do not contribute any amount to the provision of the public good, while lending credence to the 'weak' version stating that they provide only suboptimal amounts(12). The moderate conclusion that can be drawn from these series of experiments is that while free riding does exist, there is nothing inevitable or pervasive about it. It cannot be asserted that it is the dominant tendency of individuals in a public good situation to free ride. Far from it.

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- 9 B. Cherr and E. Babb, "Pricing Public Goods : An Experiment with Two Proposed Pricing Systems", Public Choice, vol. 23 (1975), pp. 35-48. Cited in O. Kim and M. Walker, n. 3, pp. 9-10.
 - 10 V. Smith, "Experimental Economics : Induced Value Theory", American Economic Review : Papers and Proceedings (1975) pp. 274-79 and V. Smith, "An Experimental Comparison of Three Public Good Decision Mechanisms", The Scandinavian Journal of Economics, 1980; both cited in O. Kim and M. Walker, n. 3, p. 10.
 - 11 E.D. Brubaker, "Free Ride, Free Revelation or Golden Rule?" Journal of Law and Economics (Chicago), vol. 18 (1975), pp. 147-61.
 - 12 This distinction between the strong and weak version is used by Marwell and Ames too. Marwell and Ames, n. 6d.

According to the Theory of Collective Action, free riding is the only possible response of rational and selfish individuals in public good situations for large groups.

Experiments which have duplicated the large group, public good situation with real individuals, however, fail to support that conclusion.

There could be two possible explanations for this discrepancy. The first possibility could be that these experiments have failed to test the hypothesis properly. Their results could be wrong because of what Kim and Walker(13) term as 'invalidating factors' in their design. Kim and Walker argue that all the experiments mentioned above had one or two of such invalidating factors and hence their results cannot correctly be interpreted as a test of the free-rider hypothesis. According to this line of argument, only a test of the free rider hypothesis in a 'purified' setting i.e. only one free from any of these invalidating factors can confirm the strength of the free rider principle. They proceed to carry out such a test and interpret the results as confirming the prediction of free-riding(14).

13 The invalidating factors listed by Kim and Walker are : The public good not being either 'pure' or 'discrete', an 'unknown' group optimum', misunderstanding or 'vagueness', 'uncertainty and disequilibrium', 'insufficient economic motivation', a 'small group', 'transitory endowment income' and 'lack of anonymity'. Kim and Walker, n. 3, pp. 12-15.

14 Ibid., pp. 16-23.

The results of such 'purified' tests as well as the basic line of argument have however been called into question. McCaleb and Wagner (15) demonstrate in an interesting paper : how these 'purified' tests themselves have been unable to prove complete free-riding by human beings; how at least two out of the three tests carried out are perfectly consistent with earlier data in their findings, though the authors have interpreted the results differently; and how even if they had demonstrated complete free riding in purified settings, it would not be of much use anyway, since real life choice settings are much closer to the earlier experiments in having one or more of those invalidating factors, rather than to the 'purified' settings of the subsequent ones.

15 T.S. McCaleb and R.E. Wagner, "The Experimental Search for Free Riders : Some Reflections and Observations", Public Choice, vol. 47 (1985), pp. 479-90.

The second reason for the failure of empirical evidence to match the predictions of the theory could inhere in the theory itself. The prediction fails to come true either because the theory itself - either its logic or its assumptions - is wrong. The first of these, faulty logic or reasoning is a possibility easily dismissed, since the logic is pretty tight and the prediction of free-riding follows logically if the assumptions are assumed to be true. The 'unreality' of the assumptions remains the only possible explanation and that is the contention of the next section.

It will be argued that selfishness and rationality are not the predominant forces which the Theory of Collective Action makes them out to be; that the Theory of Collective Action fails to take into consideration other significant forces governing human behaviour and that any modification of the standard assumptions results in outcomes radically different from those predicted by the Theory of Collective Action.

SECTION II

THE ASSUMPTIONS

SELFISHNESS AND ALTRUISM

It is almost a truism for mainstream economic theory that human beings are essentially selfish. They act to achieve goals which improve their personal welfare, which put them if possible on a higher indifference curve. The axiom of selfishness is almost an axiom of greed. The more there is of something, other things being equal, the better.

The Theory of Collective Action starts with the same assumption, that human beings are selfish or to avoid any deprecatory tone that might adhere to that term, self-interested(16). It is not that standard economic theory disclaims other motives. It might admit their existence but it does not admit their significance. Other forms of behaviour are either insignificant or analyzable in terms of self-interest again(17). However this tendency to reduce everything to self-interest, while it saves the assumption, makes it also so broad as to divest it of

16 Selfishness and self-interestedness are used interchangeably below.

17 If you give alms to a beggar you do it because you receive some sort of satisfaction from doing so. So there you are, self-interested again !

of any heuristic value it may have. So it will be useful to restrict 'selfishness' in human beings to denote behaviour, which is preoccupied with one's personal, material gain while altruism, its opposite, is taken to denote behaviour in which, some sort of personal, material loss is incurred for the sake of another, whatever be the psychological payoffs involved.

While economic theory and especially the Theory of Collective Action assumes that self-interested behaviour is the predominant norm and other types particularly altruism, are insignificant, available evidence in biology, social psychology and even economics indicates something different.

Altruism(18) and Biology

The traditional view in biology regarding the theory of natural selection placed a lot of emphasis on 'the survival of the fittest'. This imperative to 'survive or perish' was interpreted as placing a heavy premium on selfishness. Any form of altruism which would involve an animal placing itself at risk for the sake of others, would only decrease that animal's own chances of survival. Hence such behaviour would not be favoured by natural

18 "In the biological sense, an altruistic act occurs when one organism behaves in a way such that the survival of another organism is enhanced at the expense of that animal's own chance for survival." This definition and many of the details below are from Stephen E. G. Lea and others, "The Individual in the Economy: A Survey of Economic Psychology" (Cambridge, 1987), pp. 241 ff.

selection. Altruism, even if present, would slowly be eliminated.

However, extensive documentation showed this interpretation to be 'at variance with the facts'. Examples of altruistic behaviour included : the time and energy invested by some animals in parental care; bees which sting intruders and face certain death ; ground-nesting birds like the English lapwing which play at being 'injured' to lead predators away from their nests; some species of small birds and some types of deer too, which raise an alarm on spotting a predator, alerting the flock or herd but placing themselves at a greater risk by attracting the predator's attention(19); and a type of baboon which enlists the help of a friend to engage the male in a fight while it gains access to an oestrous female(20).

Behaviour of this sort posed a lot of problems for the theory of natural selection, since these 'individuals' would have been personally better off not placing themselves at risk to help others. While their behaviour would increase the chances of survival of the others, it could only reduce theirs.

19 Ibid .,pp. 245-6.

20 C. Packer, "Reciprocal Altruism in Papio Anubis",Nature, vol . 265 (1977), pp. 441-3. Cited in King's College Sociobiology Group, ed.,Current Problems in Sociobiology" (Cambridge, 1982).

This apparent inconsistency was however resolved by postulating that what appeared to be 'altruism at the individual level was actually selfishness at the genetic level'(21). Altruism is reconciliable with the theory of natural selection if the beneficiary of an altruistic act happened to be a close relation of the altruist, sharing some genes with it. Any risks that the altruist took, would then be worth it, if the outcome ensured a greater probability of genes similar to its own surviving.

This type of 'kin altruism' is more likely to occur amongst animals which live in closely related social groups and which exhibit a lot of parental care---features which are distinctive of human beings too(22).

It is not necessary however, that altruism should be significant only amongst close relations, sharing similar genes. Another form of altruism called 'reciprocal altruism' (23) is also prevalent. The case of the baboon cited earlier is one such example. It is found in conditions where it is possible to enforce reciprocity and therefore, amongst animals which have a

21 Richard Dawkins The Selfish Gene (Oxford, 1976), cited in Lea and others, n. 3, p. 246.

22 Ibid., p. 246

23 R.L. Trivers, "The Evolution of Reciprocal Altruism", Quarterly Review of Biology, vol 46 (1971), pp.35-7. Cited in Lea and others n. 18,p.246

high degree of intelligence, enjoy longevity and possess a capacity to recognize and remember faces (24). Given these conditions, altruistic acts take place even between strangers and animals belonging to different species. These conditions again are typical of human beings too (25).

The significant presence of altruism is thus highly supported by available evidence as well as the dominant paradigm of natural selection in biology.

Supplementing this biological evidence and taking its root from biology itself is the concept of a 'meme' propounded by Dawkins (26). According to him 'memes' are self-replicating units whose 'primeval soup' is 'human culture'. Examples of memes are ideas, norms, fashions, catch-phrases, ways of doing things etc. which are handed down from generation to generation in a variety of ways but all coming broadly under the rubric of 'imitation'. Altruism could be one such 'meme' - a norm which has been handed down for thousands of years via social institutions like religion - which strongly shapes human behaviour (27).

24 Lea and others, n. 18 ,p. 246.

25 Ibid.

26 Richard Dawkins, The Selfish Gene (Oxford,1978), pp.203ff.

27 According to Dawkins, "It is possible that yet another unique quality of man is a capacity for genuine, disinterested, true altruism". He desists however from exploring this possibility any further. Ibid . p. 215

Altruism and Social Psychology

Social psychology (28) strongly supports the view of altruism being a 'meme'.

Social psychology classifies altruistic behaviour as an example of 'prosocial behaviour'. This area has been studied extensively and the various factors which are likely to induce such behaviour investigated systematically (29). More importantly, research in social psychology shows how altruism is instilled in the process of socialization (30) of an individual.

Socialization involves the process of learning general tendencies like empathy and specific norms of prosocial behaviour like equity, deservedness and reciprocity (31). 'Empathy' is the

28 Social Psychology is "The study of individuals in interaction and in relation to their social environment". G. Duncan Mitchell, ed., A New Dictionary of Sociology (London, 1979) p.188

29 Lea and others, n. 18, p. 247.

30 "Socialization covers child-rearing techniques such as feeding, toilet - training and the management of emotions, as well as the acquisition of language, and cooperation and conflict. ... Socialization fits the child for the roles of adult life: expected ways of behaving in frequently recurring situations, in family- life, occupational life, community and associational life". Mitchell ,n. 28, p.188.

31 Lea and others., n.18 p.251.

capacity to share the feelings of another person and it predisposes individuals to helping or altruistic behaviour (32). It has been shown experimentally that norms like a sense of social responsibility, equity, deservedness and reciprocity affect prosocial behaviour considerably (33). For example: subjects who felt that they were being paid more than they deserved for their work, tended to work harder than those who felt they were underpaid or paid according to their qualifications (34).

Guilt about violating the social responsibility norm increased helping behaviour (35).

Beneficiaries of helping behaviour exhibited a strong tendency towards reciprocating the help (36).

32 Ibid.

33 Ibid. 'Social responsibility' denotes an obligation to help others.

34 J. S. Adams and F. K. Jacobsen, "Effects of Wage Inequities on Work Quality", Journal of Abnormal and Social Psychology, vol. 69 (1964), pp. 19-25. Cited in Lea and others, n. 18, p.252.

35 J. L. Freedman and others., "Compliance Without Pressure: The Effects of Guilt", Journal of Personality and Social Psychology, vol. 7 (1963), pp. 117-23 and J. M. Coalsmith and A. E. Gross, "Some Effects of Guilt on Compliance", Journal of Personality and Social Psychology, vol.11 (1969), pp. 232-40. Both cited in Lea and others, n. 18, p. 251.

36 D. Bar - Tal, "Pro-social Behaviour: Theory and Research (Washington, D.C., 1976), and R. E. Goranson and L. Berkowitz, "Reciprocity and Responsibility Reaction to Prior Help", Journal of Personality and Social Psychology, vol. 3 (1966) pp. 227-32. Both cited in Lea and others, n. 18, p.252.

Socialization thus tends to reinforce existing tendencies towards altruistic or helping behaviour.

Altruism and Economic Theory

Nothing attests to the significance of altruism as much as the fact that even mainstream economic theory is being forced to take note of it. Charity and gift-giving are two of the main economically significant altruistic acts subjected to a proper analysis by economists (37). The economic and practical significance of such work is demonstrated amply by the work of Titmuss (38) who compared the quality and quantity of blood donated under an altruistic system in the United Kingdom and a paid, commercial one in the United States. He found that not only was more blood donated under the altruistic system but also that it was of a better quality, since donors had no incentives to lie about any undetectable (at that time) diseases like hepatitis that they might pass on.

In an argument analogous to the traditional theory of natural selection at the individual level in biology, it has been asserted that firms which engage in selfish behaviour would gradually dominate over and eliminate others which were altruistic.

37 Lea and others, n. 18, p.254.

38 R .M. Titmuss, The Gift Relationship, (London, 1970). Cited in Lea and others, n. 18, p.263.

Economic competition would thus make altruism an unviable strategy, selfishness apparently being a more efficient one. For example, discrimination on the basis of colour, caste etc. should crumble in the face of self interested behaviour on the part of firms, since they would engage the cheapest labour around inspite of the traditional injunctions against association with people of a different colour or caste. This argument however fails to take into account the fact that social approval or disapproval can have significant economic consequences. Social Pressure then becomes a 'good' which enters into the individual's utility preferences and affects his behaviour. Discrimination persists because prevailing norms can have significant economic values.

A very conservative conclusion that can be drawn from this evidence is that, not only is altruism a significant biological phenomenon which is reinforced strongly by social processes, but it also has important economic manifestations.

The assumption of selfishness therefore is not as overwhelmingly true to life as the theory of collective action presumes it to be. That is, selfishness is not a completely correct assumption regarding human behaviour.

Restrictiveness of the assumptions however is a very common technique employed to make any analysis tractable. It is an essential tenet of the scientific method to abstract from reality and to consider only the very significant features. To the extent that the final predictions of the theory are not

significantly affected by a progressive relaxation of the assumptions, in the direction of greater fidelity to reality, it is a very useful and even an essential process. But, if the theory and its predictions themselves are contingent on the restricted assumptions, and lose their validity if any gesture towards greater realism in the assumptions is made, the theory itself should be suspect. Keeping that qualification in mind, the implications of making the assumption of selfishness a little more 'realistic' are examined next.

Implications of Introducing Altruism

The introduction of strong forms of altruism in the Prisoner's Dilemma Game (PDG), with each prisoner disregarding his own personal welfare and thinking only about the best possible outcome for the other, leads to the cooperative strategy(39). This however is an unreal assumption since altruism of that level is as restrictive an assumption as complete selfishness. Neither is it a very common phenomenon.

A weak form of altruism is however a much more common and more real assumption as has been shown before. People might be essentially selfish, but they also exhibit some degree of concern for others, be it their family, friends or society.

39 Lea and others, n.18 , p. 259. Even Olson admits this possibility though he confines it to particular types of altruistic behaviour. See Olson, n. 2, p. 19, footnote.

In an interesting modification of the Prisoner's Dilemma Game into an Assurance Game (AG), Collard showed how even such a weak form of altruism can give rise to the cooperative outcome(40).

An Assurance Game differs from a PDG in that each player in the AG has some 'expectation' or 'assurance' of cooperation from the other. Collard assumed that each player attaches some weight V to the other person's pay off. His total payoff would then consist of his payoff plus the other's payoff multiplied by V . If the probability of cooperation is then denoted by II with values ranging from zero to one (i.e. from no assurance of cooperation to total assurance), Collard showed that the cooperative strategy will be played by either player if $V > 1/2(1-II/2)$. Where the assurance is very high say, $II=1$, a very small regard for the other's payoff ($V = 1/4$) is enough for a cooperative strategy to be played. Where assurance is totally lacking i.e. $II = 0$, V needs to be greater than half for a cooperative strategy to occur. (In other words the individual must value the other's payoff at more than half his own).

40 D. Collard, Altruism and Economy (Oxford, 1978), cited in Lea and others, n.18 , p. 259-60.

A similar conclusion is arrived at by Marwell(41) who shows how altruism can increase the probability of collective action or bring it about by its effects on the noticeability of individual contributions, reduction in the costs of side payments, and expansion of the group.

Therefore, to the extent any relaxation of the not completely realistic, restrictive, assumption of selfishness, results in a weakening of the prediction of free-riding, or increases the probability of a cooperative strategy, the theory of collective action is flawed or suspect.

Rationality

The Theory of Collective Action however attempts to sidestep such a flaw by postulating that it is not necessary that individuals be selfish, only that they be rational (42). Rationality here, would denote the conscious choice of the most efficient and effective means to a goal. The goal, according to the modification, could be selfish or altruistic. 'A rational egoist will not behave any differently from a rational altruist.'

41 G. Marwell, "Altruism and the Problem of Collective Action", in V.J. Derlega and J. Grzelak, ed., Cooperation and Helping Behaviour : Theories and Research, (London, 1982), pp. 207-25.

42 "The argument about large, latent groups, then, does not necessarily imply self-interested behaviour, though such behaviour would be completely consistent with it." Olson, n. 1, p. 64.

Where his personal contribution does not make an effective difference, even a rational altruist would desist from making any contribution (43). He would prefer to contribute to another cause where he can make a more effective difference. In other words, he will free ride anyway if he realizes that his personal contribution will not make any perceptible difference.

This argument however runs into rough weather if it is confronted with the results of the free-riding experiments and their failure to reveal substantial free-riding on the part of the subjects.

The concept of rationality itself is not infallible. It has been shown to be inadequate on a lot of grounds. The necessity of perfect information i.e. an awareness of all possible alternatives is an unattainable ideal for most individuals (44). If the concept is sought to be rescued by postulating that individuals seek out information up to that level where the costs match the benefits, the attempt is unsatisfactory, because the emphasis shifts now to an individual's subjective perception of costs, and virtually any course of action that he adopts then becomes rational by definition.

43 Ibid. Also Olson, n. 2, pp. 19-20.

44 See Herbert Simon, Reason in Human Affairs (Oxford, 1983).

Watkins (45) makes a similar point when he asserts that the optimal-decision-making situation of the 'perfect rationality' model is inapplicable for most practical decision-making situations. He develops an 'imperfect rationality' principle where what is important is the individual's 'reconstruction' of the 'decision-making situation.' "An individual may be acting rationally in terms of his reconstruction of the decision-making situation and of his preferences (desires), while he is actually acting irrationally in terms of the objective situation" (46).

This is not a rare occurrence either, for it is not unusual to have subjects even in large groups asserting the importance of their personal contributions to the outcome of a collective good situation, though objectively there is hardly any basis for that belief (47).

Simon's concept of 'satisficing' or 'bounded rationality' also seems more likely to represent what human beings actually do rather than the traditional conception (48).

45 Watkins, cited in D. Marsh, "On Joining Interest Groups: An Empirical Consideration of the work of Mancur Olson, Jr. British Journal of Political Science, no. 3, vol. 6, 1976, pp. 257-71.

46 Marsh, n. 30. p. 267.

47 T.M. Moe, The Organization of Interests (Chicago, 1980), cited in R. Hardin, Collective Action (Baltimore, 1982), pp. 115-16.

48 See Simon, n.44

As Lea, Tarpay and Webley also point out, studies in psychology have singularly failed to lend much support to the traditional conception of rationality (49).

Its fallibility aside, even if it is assumed that to be rational would mean to choose the most effective and efficient means to a goal, it is not evident how that would explain the discrepancy between the predictions of strong free riding and the failure of the experiments to substantiate that.

Moreover Olson's conclusions fail, as he himself admits, if (i) an altruist is not 'rational' in the sense that he is either not bothered about the outcome, getting his payoff only from participating or contributing, or (ii) he neglects the perceptible difference his personal contribution might or might not make to the level of the public good and simply assumes that whatever difference it makes is worth the 'sacrifice' he makes (50). Olson implies that such forms are unusual and not very significant (51). This however is a very questionable

49 "In all three areas we have examined (riskless choice, choice under uncertainty, and intertemporal choice), we have seen that, in an analysis of real human choice behaviour, the rationality assumption is at best unproven, generally unhelpful, and sometimes clearly false." They however caution against concluding that the "rationality assumption is indefensible". The proper conclusion would be "...that the concept neither exhausts nor implies everything that can be known about the behaviour of the individual in the economy." Lea and others, n.18 , pp. 127-30. Emphasis added.

50 Olson, n. 2, pp. 19-20.

51 Ibid.

qualification, more so if the empirical evidence against the assumptions of selfishness and 'perfect rationality' is considered.

Any explanation of the discrepancy between the evidence on free-riding, and the prediction of the Theory of Collective Action is therefore, more fruitfully sought in the factors Olson ignores or relegates to footnotes, apparently as theoretically possible but empirically insignificant determinants.

As pointed out earlier, 'expectations' regarding the actions of the others is one such factor. As Runge (52) asserts, when choices are interdependent there is an incentive to create and maintain institutions which can coordinate expectations based on certain norms like 'fairmindedness'. He demonstrates how under such conditions, contributions to public goods can be a utility-maximizing strategy.

Brubaker (53) makes a similar point when he proposes his 'Golden Rule of Revelation'. He contends that people are more bothered about being taken advantage of, or of making an

52 C.F. Runge, "Institutions and the Free-Rider : The Assurance Problem in Collective Action", Journal of Politics, vol. 46, (1984), pp. 154-81.

53 Brubaker, n.

ineffectual contribution rather than of utilizing opportunities to free ride. Where they can be assured that others will match their contributions and where they know that failure to contribute enough collectively, might mean the exclusion of the group, they will contribute. He even shows how Bohm's (54) evidence supports his thesis.

Ethical constraints and social norms which have been internalized by individuals also act as a constraint on free-riding (55). As Brubaker argues, people may value not just the good itself but the way it has been acquired too. 'Extra-rational' motivations like the desire to participate and continuous interaction can also lead to cooperative outcomes. Axelrod and Hamilton for instance, show how repeated plays of the Prisoner's Dilemma Game can lead to the evolution of cooperation, with tit-for-tat as a dominant strategy (56).

55 On the economic importance of morality and the role it plays in facilitating the efficient functioning of the economy see Michael S. McPherson, "Limits on Self-seeking : The Role of Morality in Economic Life", in D.C. Colander, ed., Neo Classical Political Economy : The Analysis of Rent Seeking and DUP activities (Massachusetts, 1984).

56 R. Axelrod and W.D. Hamilton, The Evolution of Cooperation, Science, vol. 211 (1981), pp. 1390-6. Cited in Ian Mclean, Public Choice : An Introduction (Oxford, 1987), pp. 136-9. See also, Lea and others, n.18 , p. 259, footnote.

Conclusion

The point being made is this. Collective action problems frequently are solved in real life and not only because of the presence of selective incentives. The failure of the prediction of strong free-riding to come true is a serious indictment of the Theory of Collective Action. The Theory of Collective Action fails to account for why people do not consistently free ride, because the assumptions on which it is based are too restrictive. They do not capture the variety of motivations which govern human behaviour or the different forces which constrain their actions. The theory has little place for social institutions and norms which make the adoption of cooperative strategies possible and which influence behaviour in a variety of ways. Any relaxation of the assumptions to make them more real, or any introduction of institutions or social factors, yields outcomes more consistent with the experimental evidence. This however, is at the cost of the neat generalizations of the theory of Collective Action.

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CHAPTER 3

CRITICISM OF THE IMPLICATIONS

The implications of the Theory of Collective Action are also subject to a lot of shortcomings. This chapter will review some of the major criticisms of both the immediate and secondary implications of the Theory of Collective Action. It is divided into two sections. Section 1 deals with the immediate implications while Section 2 tackles the secondary ones.

Section I

Immediate Implications

Group Size and Free Riding

One of the direct implications of the Theory of Collective Action is supposed to be the relation between group size and the extent of the free rider problem. The free-rider problem is supposed to increase with an increase in the size of the group i.e. larger groups will have acute free-rider problems and will be incapable of providing themselves with any amount of the collective good in the absence of selective incentives, while smaller groups will be able to provide themselves sub-optimal amounts.

Frohlich and Oppenheimer (1) however dispute this. They show that any such relationship between free-riding and the size of the group is not a necessary logical implication of the assumptions of self-interest and rationality on which the theory is based. For such a relationship to be drawn, it is necessary to introduce additional assumptions regarding information and transaction costs. They argue that the essential question, of whether rational and self-interested individuals will be able to supply themselves with collective goods, will depend, on the "existence of some mechanism whereby they can coordinate their expectations regarding the probable actions of others" (2). In the absence of any such mechanism, no determinate relationship can be drawn between the extent of the free-rider problem and group-size. In fact, they doubt if without such a coordinating mechanism, there is any "a priori reason to believe that goods will be collectively supplied to groups of any size" (3).

1 N. Frohlich and J.A. Oppenheimer, "I Get By With a Little Help From My Friends" World Politics, vol. 23 (1970), pp. 104-20.

2 Ibid., p. 119.

3 Ibid.

Chamberlin (4) tackles the same theme of the relationship between the size of the group and the extent of provision of the collective good 'by the uncoordinated activities of the group members', to show that the relationship is not as simple as Olson makes it out to be. He takes into consideration the nature of the collective good - whether it is an exclusive or an 'inclusive' collective good (5) and whether it is an inferior, a normal or a superior good, along with the resultant income effect, to show the restricted nature of Olson's conclusion.

In the case of an 'inclusive' collective good which is not inferior, Chamberlin demonstrates that the relationship between group size and the extent of provision of the collective good is actually the opposite of what Olson contends. That is, the amount of the collective good provided increases with an increase in group size.

For intermediate goods, Chamberlin demonstrates that the relationship is indeterminate. It could go either way i.e. the amount of the collective good provided can either increase or decrease with group size, depending on the relative strengths of the income and the crowding effects. It is only for 'exclusive' collective goods that Olson's conclusion, of an increase in group

4 J. Chamberlin, "Provision of Collective Goods as a Function of Group Size", American Political Science Review, vol. 68 (1974), pp. 707-16.

5 See Chapter I, n. 18., for a definition of exclusive and inclusive collective goods.

size leading to a decrease in the amount of the collective good provided, is valid.

The direct implication of the Theory of Collective Action regarding the relation between the size of the group and the total amount of the collective good provided cannot therefore be derived solely on the basis of the assumptions of self-interest and rationality. Even where other assumptions regarding information costs and transaction costs are incorporated, the implication that large groups find it more difficult to supply themselves with collective goods holds only for exclusive collective goods. For intermediate collective goods the result is generally indeterminate and depends specifically on the mix of the exclusive and inclusive natures of the good, while for inclusive collective goods which are not inferior, large groups actually provide themselves with greater amounts of the collective good as their size increases.

Limitations of the concept of 'Optimality'

Another important implication of the Theory of Collective Action has been the one regarding the 'exploitation of the great by the small'. This implication has been quite freely used in the study of international alliances, to argue, among other things, that proper 'burden-sharing' amongst countries which are alliance partners would lead to a greater amount of the collective good in question being provided. This outcome, as long as it was Pareto-optimal, would increase the welfare of the alliance

members. Wittingly or unwittingly, normative suggestions were advanced that alliances should bear the costs of each additional unit of the good in the same proportion as the benefits they would obtain, so that at least some if not everyone of the alliance partners would be better off, without anyone being worse off.

Oppenheimer (6) takes issue with this conclusion and shows that everyone's welfare as such would be increased only under a very restricted set of conditions. These include the fact that it should be possible to 'rationally aggregate the preferences' of all the people in each country and also that it should be possible to express this through the country's 'social decision-procedures'. He demonstrates that the normative claims of sub-optimality have a lot of other limitations like the 'justness' of the initial distribution of resources, which should prevent us from rushing to proclaim the merits of 'burden-sharing'. His essential point is that there are severe limitations to applying this implication of the Theory of Collective Action to the study of alliances, with nation states as actors.

6 J.A. Oppenheimer, "Collective Goods, and Alliances : A Reassessment", Journal of Conflict Resolution, vol. 23 (1979), pp. 387-407.

Section II

Secondary Implications

Central to Olson's secondary implications, is the assumption that economic growth is the natural state of affairs of a competitive economy, and that it takes the activities of narrow, special interest organizations or intervention by the state to obstruct or impede this process (7). As Thurow points out however, there is little in economic theory to justify this optimistic assumption (8). Moreover, technological progress is an important force driving economic growth which can easily upset Olson's equations (9). Competitive market economies can only be shown to achieve Pareto-optimal outcomes given the existing state of technological knowledge (10). Interest groups can prevent such outcomes or even block the acceptance of technological innovations in their field. But there is little they can do to prevent people from exploiting new opportunities for profit facilitated by technological change, new market opportunities, economies of scale, changing incomes or tastes (11).

7 L.C. Thurow, "From Infancy to Senility and Back", New York Review of Books, 3 March 1983, pp. 9-11.

8 Ibid., p. 9.

9 Ibid.

10 Ibid., p. 9.

11 See A.S. Guha, An Evolutionary View of Economic Growth (Oxford, 1981).

The fact that traditional or established industries have entry barriers erected by special interest groups can only act as a further incentive to exploit new fields and technologies. This leads to the formation of new interest groups and the possibility of the older ones being undermined by them. Sudden social or political upheavals or 'Olson shocks' might thus not be the only way in which entrenched interest groups can be destroyed. Shifting opportunities for economic profit, through changes in trade opportunities, tastes, incomes or technology can lead to their slow impoverishment and demise.

It is difficult to agree with Olson when he postulates most special interest struggles as being redistributive conflicts over social output. The more normal tasks they engage in relate to productive, socially beneficial struggles against nature. A specific example of this would be the building of dykes and the reclamation of land from the sea in Holland.

Olson presents the evidence of weak or non-existent, narrow interest groups in post-war Japan, West Germany and their rapid economic growth rates, along with Britain's strong interest groups and its declining relative rates of growth to substantiate the implications he draws from his theory. Mere correlation however is not enough to establish the direction of causation. Does rapid economic growth lead to weak interest groups or do weak interest groups lead to rapid economic growth? Olson asserts that it is the latter. It is possible however, to argue, that

economic stagnation leads to a situation where groups are compelled to organize themselves to maintain their relative income positions, while in a phase of rapid economic growth they are under no such pressure. Supplementing this could be the fact that rapid economic growth leads to the establishment of a lot of new industries, new occupations and consequently new common interests which are unorganized merely because they are new, and not because they lack the capacity or incentives to do so.

Even if for the sake of argument, we accept the direction of causation, there is no explanation for why different countries have experienced different periods of economic 'rise and decline' (12). Any explanation for the varying periods of prosperity enjoyed by different countries - ranging from three to four thousand years for Egypt to a thousand years for the Roman Empire to three hundred for Britain and about fifty for the United States - must necessarily deal with institutional and cultural features, changes in external markets, military pressures, ability to adapt to environmental constraints, positional and natural resource advantages and similar factors which have been shown to determine economic growth but which Olson neglects (13).

12 Thurow, op. cit., p. 9. See Guha, n. 11., especially the sections on the Roman Empire, Britain and Japan for such a comprehensive explanation of economic growth. pp. 64-67; 73-82; 106-112.

13 Thurow, op. cit., p. 10.

The generality of Olson's implications is also affected by a lot of special features which Olson postulates to explain the combination of stability and growth in Switzerland and the poor rates of growth of New Zealand, Australia, Great Britain and the United States (14).

While special-interest organizations might thus be an interesting factor, may be even an important one, in the rise and decline of nations, it is doubtful if they have as predominant a role as Olson carves out for them.

14 Thurow, *op. cit.*, p.10.

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CHAPTER 4

SUMMARY AND CONCLUSIONS

The Theory of Collective Action, in the best traditions of research, attempts to explain 'a lot with very little'. Starting with certain plausible assumptions about human nature, it builds up into an impressive argument regarding why collective goods, especially those relevant to social scientists, like common interests, will not be voluntarily provided or achieved for large groups without selective incentives. This happens not because individuals are ignorant, ill informed or unconcerned about their interests but on the contrary because they are perfectly rational and self-interested in their pursuit of these.

While rationality and self-interestedness combine to make the achievement of any collective good difficult, the actual degree of difficulty varies with the size of the group. Small groups face fewer hurdles than large groups in organizing to achieve their common interests. The Theory of Collective Action uses this differential advantage which small groups possess, to explain among other things, the economic 'rise and decline' of different nations.

Remarkable as the range of phenomena explained is, the strength of the theory lies in its ability to generate 'testable' predictions. However, that is also its Achilles' heel.

This study has shown how experiment after experiment failed to corroborate the central prediction of the Theory of Collective Action. The insistent nature of this evidence inevitably called into question the validity of the theory itself. The theory was then examined and it was shown how its validity was precariously contingent on its assumptions. The assertions of the theory held as long as its assumptions were completely representative of human nature. The introduction of any contrary forces, howsoever weak, led to radically different outcomes. The significance and the pervasiveness of such contrary forces was then shown to be an essential facet of reality, - one which could not easily be assumed away. This led to the conclusion that to the extent the Theory of Collective Action ignored these important factors, its capacity or power to explain social phenomena was severely limited.

The Implications of the Theory of Collective Action were examined next and it was shown that even if the assumptions were taken to be completely representative of human behaviour, the theory was extremely limited in its applicability. The relationship between group size and free-riding held only for a limited class of exclusive collective goods. For inclusive, non-inferior, collective goods the relationship was exactly the opposite of that predicted by the theory.

The secondary implications regarding the role of interest groups in the rise and decline of nations were also

scrutinized. It was argued that economic growth depended a lot not on the role of interest groups alone, but on many other factors; also that the correlation shown between weak interest groups and rapid economic growth was not proof enough since correlation alone is insufficient to establish the direction of causation.

The Theory of Collective Action then is excessively dependent for its validity on extremely restrictive assumptions. Its predictions are not adequately supported by experiments. Its direct implications are at best very limited in their applicability. At worst they cannot be derived without additional exogenous assumptions. Moreover, the explanatory power of its secondary implications is severely limited because it ignores other important factors affecting economic growth.

While the Theory of Collective Action is parsimonious, testable and provocative, it applies best under certain 'ideal' conditions of completely self-interested and perfectly rational individuals operating in a social vacuum. Since these ideal conditions are not representative enough of reality, it is imprudent to apply the theory in its present state to explain real-life social phenomena. Any such effort needs to be preceded by an attempt to make its assumptions at least a little more realistic.

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