

### **Contents**

Pro	positions and Corollaries	page ix
Tak	ples	XV
Figi	ures	xvii
Side	ebars	XX
Def	finitions	xxi
Pre	face	xxiii
Ου	erview of the Book	xxvii
Ack	enowledgments	xxxi
	Introduction: Politics, Universals, Knowledge Claims, and Methods	I
PAR	T I. THE LOGIC OF COLLECTIVE ACTION	
Ι.	Voluntary Contributions and Collective Action	27
2.	Going Beyond the Prisoner Dilemma	60
3.	Collective Action Applications to and Beyond Democratic Politics	71
PAR	T II. COLLECTIVE CHOICE	,
	Individual to Collective Choice in One-Dimensional Politics	0.5
4· 5·	Individual to Collective Choice in One-Dimensional Folitics  Individual to Collective Choice More Generally	95 116
PAR	T III. POLITICAL INSTITUTIONS AND QUALITY OUTCOMES	
6.	Political Necessity and the Tethering of Leaders	143

vii



viii	Contents
7. A Few Institutional Pitfalls	161
PART IV. SOCIAL JUSTICE, CHOICE, AND WELFARE	
8. The General Problem of Collective Welfare and Choice	193
9. Voting Rules	211
10. Social Welfare and Social Justice: A Partial Integration	223
Conclusion: Questions and Lessons	245
Bibliography	253
Name Index	269
Subject Index	273



# **Propositions and Corollaries**

Throughout, empirical propositions are in **bold**; corrolaries are not. Both are in SMALL CAPS. Normative propositions (in **bold**) and corollaries (not bold) are *italicized*.

AN UNORGANIZED GROUP CANNOT OPTIMALLY SATISFY ITS SHARED OR COLLECTIVE INTERESTS. page 27

A GROUP CAN ONLY GET MEMBERS TO CONTRIBUTE TO SOLVE ITS SHARED PROBLEMS BY PROVIDING INCENTIVES INDEPENDENT OF THE PUBLIC GOOD.  $page\ 27$ 

INDIVIDUALS DON'T HAVE AN INCENTIVE TO GIVE THEIR TRUE VALUATION OF A PUBLIC GOOD. page 28

for groups of people to meet their shared needs over time they must have the freedom to organize themselves politically.  $page\ 28$ 

THE LARGER THE GROUP, THE FURTHER FROM OPTIMAL WILL BE THE AMOUNT OF A PUBLIC GOOD WHICH AN *UNORGANIZED* GROUP WILL SUPPLY ITSELF. *page* 29

THE FURTHER FROM OPTIMAL THE GROUP IS WITHOUT ORGANIZATION, THE GREATER WOULD BE THE POTENTIAL PROFIT IN ORGANIZING THE GROUP TO SATISFY THEIR COMMON INTERESTS OR TO SUPPLY THEM WITH PUBLIC GOODS. page 29

POLITICS IS POTENTIALLY MORE PROFITABLE FOR POLITICAL LEADERS IN LARGER GROUPS, page 29

POLITICAL COMPETITION WILL BE STIFFER IN LARGER GROUPS. page 29
IN MOST COLLECTIVE ACTION PROBLEMS THERE WILL BE A BREAKEVEN
POINT, SUCH THAT IF MORE THAN THE BREAKEVEN NUMBER OF PEOPLE CAN

ix



Propositions and Corollaries

X

BE ORGANIZED TO GIVE, THEY WILL FIND IT REASONABLE TO GIVE, EVEN THOUGH THEY HAD A DOMINANT STRATEGY TO NOT GIVE. page 31

POLITICAL LEADERS CAN USUALLY SUCCEED IN TURNING A COLLECTIVE ACTION DILEMMA INTO SOMETHING OF A COLLECTIVE SUCCESS BY ORGANIZING JUST A SUBGROUP OF INDIVIDUALS. page 31

WHEN PEOPLE CARE ABOUT THE FUTURE PAYOFFS FROM INTERACTIONS THAT ARE REPEATED, THERE IS SUBSTANTIALLY GREATER POTENTIAL FOR COOPERATION IN PROBLEMS OF COLLECTIVE ACTION. page 37

PEOPLE WHO ARE TRANSITORY MEMBERS OF GROUPS (SHORT TIMERS) ARE LESS LIKELY TO BEHAVE COOPERATIVELY TO SOLVE COLLECTIVE ACTION PROBLEMS. *page* 37

SOMETIMES POLITICAL LEADERS CAN SUCCEED BY TURNING A COLLECTIVE ACTION DILEMMA INTO AN ASSURANCE GAME, AND THEN BY ORGANIZING A SUFFICIENT SUBGROUP, GENERATING A BANDWAGON EFFECT IN THE GROUP AS A WHOLE. page 44

EFFECTIVE POLITICAL LEADERS ENGINEER SITUATIONS TO EXPAND THE RANGE OVER WHICH A CONTRIBUTION WILL MAKE A DIFFERENCE. page 48 EFFECTIVE POLITICAL LEADERS ENCOURAGE INDIVIDUALS TO BELIEVE THE PROBABILITY THAT THEIR CONTRIBUTION WILL MAKE A BIG DIFFERENCE IS HIGH. page 48

INDIVIDUALS HAVE A DISCOUNTED INTEREST IN ACQUIRING INFORMATION ABOUT POLITICAL AFFAIRS AND WILL, IN GENERAL, REMAIN RATIONALLY IGNORANT REGARDING POLITICS. page 50

THE WEALTHY WILL BE BETTER POLITICALLY INFORMED THAN THE POOR. THEREFORE, WITHOUT MASS ORGANIZATIONS SUCH AS UNIONS OR CLASS-BASED PARTIES, THE POOR, MORE OFTEN THAN THE WEALTHY, WILL MISIDENTIFY THEIR POLITICAL INTERESTS. page 51

DEMOCRACIES ARE NOT LIKELY TO HAVE MUCH BETTER FOREIGN POL-ICIES THAN NON-DEMOCRACIES; THE BENEFITS FROM DEMOCRACY WILL MAINLY BE IN THEIR IMPROVED DOMESTIC POLICIES. *page* 51

POLITICAL BEHAVIOR BY CITIZENS (ALTHOUGH NOT LEADERS) CAN BE EXPECTED TO BE SUBSTANTIALLY MORE AMORAL AND IRRESPONSIBLE THAN THEIR ECONOMIC AND PERSONAL BEHAVIOR. *page* 52

The greater the costs of acquiring information from competing sources, the larger will be the moral gap between political and personal behavior.  $page\ 52$ 

If common-pool resources that are vital to life are to be privatized, then programs are required to ensure the less fortunate economic security or access to these resources in times of shortages when prices are liable to rise. page 55



#### Propositions and Corollaries

xi

A SMALL GROUP OF INTENSELY MOTIVATED INDIVIDUALS IS FAR MORE LIKELY TO TAKE ACTION TO ACHIEVE A SHARED GOAL THAN IS A LARGE GROUP OF INDIVIDUALS WHO ARE EACH NOT VERY SERIOUSLY AFFECTED BY THE OUTCOME.  $page\ 56$ 

TURNOUT WILL BE HIGHER IN ELECTIONS THAT APPEAR TO BE CLOSER AND WHERE THE STAKES ARE LARGER. page 59

TURNOUT WILL GO DOWN WHEN VOTING BECOMES MORE INCONVEN-IENT OR MORE COSTLY, page 59

WITH SINGLE-PEAKED PREFERENCES IN ONE DIMENSION, THE EQUILIBRIUM OUTCOME OF A MAJORITY RULE, PAIRWISE VOTE WILL BE THE MOST PREFERRED (OR IDEAL) POINT OF THE MEDIAN VOTER. page 68

WITH SINGLE-PEAKED PREFERENCES IN ONE DIMENSION, AND PAIRWISE MAJORITY RULE, THE MEDIAN VOTER'S MOST PREFERRED (OR IDEAL) POINT WILL BE THE CORE. page 69

THE ALTERNATIVE CLOSER TO THE MEDIAN WILL ALWAYS WIN IN PAIRWISE MAJORITY RULE. page 69

MAJORITY RULE, WHEN ALL VOTERS HAVE SINGLE-PEAKED PREFERENCES, DELIVERS PARETIAN, OR OPTIMAL, RESULTS. page 70

IN SIMPLE TWO-PARTY ELECTIONS, CANDIDATES WILL HAVE A STRONG TENDENCY TO ADOPT A POSITION NEAR THAT OF THE MEDIAN VOTER. page~71

IN PRIMARIES THERE WILL BE A TENDENCY FOR THE COMPETITORS TO ADOPT POSITIONS NEAR THE MIDDLE OF THE DISTRIBUTION OF THEIR OWN PARTY'S VOTERS. GIVEN CONSISTENCY AND CREDIBILITY REQUIREMENTS, THERE MAY BE LIMITED ROOM TO MOVE AWAY FROM THAT POSITION TOWARD THAT OF THE MEDIAN VOTER. page 71

IF THERE ARE ONLY TWO PARTIES IN AN ELECTION, AND BOTH TAKE AN UNAMBIGUOUS STAND ABOUT THE ISSUES OF THE DAY, THE PARTIES MAY EACH BE REPRESENTED BY A SINGLE POINT IN SOME LARGER (MULTIDIMENSIONAL) SPACE. VOTERS CAN BE EXPECTED TO SUPPORT THE PARTY WITH THE POSITION CLOSEST TO THEM. page 73

WHEN THERE IS A BICAMERAL LEGISLATURE AND THE DISTRIBUTION OF VOTERS VARIES BETWEEN THE CHAMBERS OF THE LEGISLATURE, THEN WHICH CHAMBER DECIDES FIRST MAY DETERMINE WHETHER THE STATUS QUO WILL PREVAIL, AS WELL AS WHAT CAN REPLACE IT. page 76

INTRODUCING CHECKS AND BALANCES RESTRICTS THE RESPONSIVENESS OF THE SYSTEM TO THE NEEDS, WELFARE, AND PREFERENCES OF THE MEDIAN VOTER.  $page\ 79$ 

WHEN ISSUES ARE MULTIDIMENSIONAL, MAJORITY RULE CAN LEAD TO RESULTS THAT ARE NOT PARETO OPTIMAL. page 83



Propositions and Corollaries

xii

IN GENERAL, WITH SINGLE-PEAKED PREFERENCES IN MORE THAN ONE DIMENSION THERE IS NO POINT THAT WILL BE IN EQUILIBRIUM WITH THE USE OF MAJORITY RULE. page~84

In multidimensional situations and using majority rule, preferences are likely to support voting cycles. page 85

IN GENERAL, WITH SINGLE-PEAKED PREFERENCES IN MORE THAN ONE DIMENSION AND THE USE OF MAJORITY RULE, THERE IS NO POINT THAT WILL BE IN THE CORE: THE CORE WILL BE EMPTY. page 85

WITH A SET OF ALTERNATIVES THAT ARE IN MORE THAN ONE DIMENSION, MAJORITY RULE CAN LEAD A GROUP TO CHOOSE OUTCOMES THAT ARE ANYWHERE IN THE ALTERNATIVE SPACE. page~86

WITH MAJORITY RULE, ANY SUBOPTIMAL OUTCOME IS LIKELY TO BE REPLACED BY ONE THAT IS CLOSER TO THE PARETO SET AND, HENCE, PREFERRED BY ALL.  $page\ 86$ 

Special majority rules can help stabilize gains that groups can achieve in the making of binding decisions with democratic rules.  $page\ 87$ 

IN GENERAL WHEN THE PLACEMENT OF "BADS" ARE THE SUBJECT OF COLLECTIVE DECISIONS, PLACEMENT WILL BE FAR FROM THE PHYSICAL LOCATION OF THE PREDOMINANT CLUSTER OF VOTERS. IF THERE IS NO SUCH CLUSTER, IT WILL STILL BE PLACED AT OR NEAR THE EDGE OF THE POSSIBLE SPACE. page 89

DEMOCRATIC PROCESSES AMONG PROFESSIONAL POLITICIANS LEAD TO OUTCOMES IN PREDICTABLE RANGES EVEN IF THEY CANNOT BE SPECIFIED MORE EXACTLY, WITH WIDE LATITUDE OF ARRANGEMENTS THESE RANGES TEND TO THE CENTER OF THE DISTRIBUTION OF THE VOTER'S IDEAL POINTS AND CAN BE EXPECTED TO BE WITHIN THE UNCOVERED SET. page 92

WHEN WE FACE EXTERNALITIES, ONLY WHEN A PARETIAN BARGAIN IS IN EQUILIBRIUM CAN WE EXPECT INDIVIDUAL RATIONAL BEHAVIORAL OUTCOMES TO GENERATE OPTIMALITY. page 102

FACED WITH EXTERNALITIES, GOVERNMENTAL ACTION IS AS LIKELY TO BE NECESSARY TO ACHIEVE GOOD SOCIAL OUTCOMES AS NOT. page 102

IN MOST PUBLIC GOOD SITUATIONS THE SUPPLIER IS A NATURAL MONOPOLIST. page 103

COMPETITION AMONG WOULD-BE SUPPLIERS OF PUBLIC GOODS IS ABOUT REPLACEMENT RATHER THAN MARKET SHARE. page 103

The first requirement of any decent political system is to ensure political succession not be contested in a manner that jeopardizes the welfare of the general population. page 103



#### Propositions and Corollaries

xiii

NON-DEMOCRATIC GOVERNMENT BY SELF-INTERESTED RULERS CAN LEAD TO A PROSPEROUS CITIZENRY. FOR CIVILIZATION TO THRIVE, DEMOCRACY IS NOT NECESSARY BUT GOVERNMENT MUST HAVE AN INCENTIVE FOR THE POPULATION TO THRIVE. page 104

INCREASED COSTS OF A NON-DEMOCRATIC RULER'S COALITION INCREASES THE RULER'S RAPACIOUSNESS AND HURTS THE WELL-BEING OF THE CITIZENS.  $page\ 105$ 

THE LARGER THE DEMOCRATIC (MAJORITARIAN) COALITION THAT RULES, THE MORE THEIR INCENTIVES WILL COINCIDE WITH THOSE OF THE CITIZENRY. page 105

BETTER OUTCOMES FOR BENEFICIARIES REQUIRE THAT THEIR INTERESTS IMPACT THE REWARD STREAM OF AGENTS. page 108

INSTITUTIONAL DESIGN TO INCREASE COMMITMENT TO POLICY DECISIONS IMPLIES A DECREASE IN POLITICAL RESPONSIVENESS, page 109

DEMOCRACY IS EASIER TO ACHIEVE FROM A POLITICAL STRUGGLE INVOLVING REGIME CHANGE WHEN CAPITAL IS MOBILE AND THE SOCIETY IS RELATIVELY EGALITARIAN. page 110

WHEN INDIVIDUALS HAVE RIGHTS AND WHEN THEIR BEHAVIOR IS OF GREATER IMPORTANCE TO OTHERS THAN TO THEMSELVES, AND THEIR PREFERENCES ARE IN CONFLICT, PARETO OPTIMALITY MAY BE SACRIFICED. page 115

WHEN THE GOVERNMENTAL BOUNDARIES DON'T MATCH THE BOUNDARIES OF THE BENEFIT GROUP FOR THE PUBLIC GOODS BEING SUPPLIED, ONE CAN EXPECT A PARETO SUBOPTIMAL OUTCOME. page 118

ALLOWING SUBGROUPS OF BENEFICIARIES TO SET UP A LOCAL AUTHORITY TO IMPROVE THE DELIVERY OF PUBLIC GOODS FOR THEMSELVES WILL USUALLY HAVE REDISTRIBUTIVE CONSEQUENCES THAT CONFLICT WITH NOTIONS OF FAIRNESS.  $page\ 119$ 

COMPULSORY VOTING LEADS TO LESS POLARIZATION OF PLATFORMS. page 121

Compulsory voting leads to platforms that, as a set, better reflect the values of the population as a whole. page 121

Any acceptable conception of social well-being requires that individuals' welfare be comparable, page 129

No one, in general, is in a better position than the individual to gain direct knowledge of what is good for herself based on observation, discussion, consultation, and inward reflection. page 132

In a democracy the social good is inextricably wound up with the wellbeing of the citizenry, page 132



Propositions and Corollaries

xiv

Individual welfare is given an implicit moral status in democracies: it is good. page 133

WITHOUT INTERPERSONAL COMPARISONS, WE WILL BE UNABLE TO DO MORE THAN SEEK PARETO OPTIMALITY WHEN DECIDING WHAT IS BETTER FOR THE GROUP. page~137

WHERE EACH VOTER IS FREE TO PROPOSE NEW ALTERNATIVES, PURELY DISTRIBUTIVE ISSUES CYCLE IF THE JUDGMENTS ARE BASED ON SIMPLE SELF-INTEREST.  $page\ 142$ 

EFFECTIVE VOTE-TRADING REQUIRES AN UNDERLYING CYCLIC PREFERENCE PATTERN. page 142

POLITICAL OUTCOMES ARE NOT EXPLICABLE BY THE PREFERENCES OF THE VOTERS AND THE VOTING RULES ALONE. RATHER EXPLANATION REQUIRES CONSIDERATION OF THE STRATEGIES VOTERS CHOOSE, ALONG WITH THE RULES OF THE POLITICAL INSTITUTIONS THAT GOVERN THE AGENDA. page 142

The choice of voting rules will make a substantial difference in the quality, responsiveness, and stability of the outcomes that the group chooses. page 148

PEOPLE WANT A FLOOR OF SUPPORT SO ALL MAY BE ABLE TO MEET THEIR BASIC NEEDS.  $page\ 157$ 

DEMOCRATIC GOVERNMENTS ARE IN PART LEGITIMATED BY MEETING THEIR CUSTODIAL OBLIGATIONS TO THEIR CITIZENS. page 158

Democratic governments have an obligation to ensure conditions are met so the basic needs of their citizenry can be satisfied, page 158



### **Tables**

tı.	Jim and Joan Consider a River Walk	page 31
t2.	Jim and Joan Consider Visiting a Relative: Depicted as a	
	Prisoner Dilemma Game	32
t3.	Value of Donating, Given Behaviors of Others: Illustrating th	e
	Problem of Collective Action	33
t4.	Value of Donating, with Punishment	48
t5.	Two-Person Prisoner Dilemma Game	52
t6.	Some Alternatives in a Twice Repeated Two-Person Prisoner	
	Dilemma	54
t7.	Neighbors in an Assurance Game	61
t8.	Neighbors in a Chicken Game	65
t9.	Types of Goods	81
t9.	The Calculus of Purely Instrumental Voting	85
tio.	A Two-Party Externality Showing Profits of Both	
	Enterprises	144
tıı.	Values of Coalitions – No Core	146
t12.	Instability of Agreements with No Core	147
t13.	Liberal Paradox: Preferences over the 3 Outcomes	166
t14.	The Cyclic Nature of Outcomes in a Liberal Paradox	
	Situation	167
t15.	Liberty Game Form	168
t16.	Arrow's Proposed Desirable Characteristics for	
	a Conception of Social Welfare	199
t17.	The Group Decisive for A, B Is Decisive for All	
	Alternatives	203

xv



xvi	L	ist of Tables
t18.	The Decisive Group Is One Individual	204
t19.	Preferences Supporting a Voting Cycle with Majority R	ule 207
t20.	Distributive Proposals that Cycle	209
t21.	The Borda Count Violates Independence	214
t22.	Condorcet Criteria	216
t2.2	Voting by Veto and Moderation in Choice	2.17



# **Figures**

fī.

	Dilemma Game	page 43
f2.	The Value of Donating with Decreasing Marginal	
	Valuation	46
f3.	Average Contributions in Five-Person Groups in a VCM	
	Experiment	56
f4.	Example of a Moderately Cooperative Subject in an	
	n-Person Prisoner Dilemma Game Experiment	57
f5.	An n-Person Assurance Game	63
f6.	A Chicken Game	65
f7.	The Value of Cooperating with a Step Function	67
f8.	Contributing to a Public Good: The General Case	68
f9.	Display of the Value of Voting and Not Voting	84
fio.	Map of U Street	96
fii.	Violating Single-Peaked Preferences	98
f12.	Pareto Set Given N=5, Single-Peaked Preferences, One	
	Dimension	IOI
f13.	Tendency toward Matching Platforms around	
	the Median Voter's Ideal Point Regardless of Voter	
	Distribution around the Median Voter	104
f14.	Tendency toward Diverging Platforms with Closed	
	Primaries, Indifference, or Alienation	105
f15.	Two-Party Competition Reduces the Space to One	
	Dimension	106
f16.	The Power of a Legislative Committee	107

Graphing the Payoffs of a Ten-Person Prisoner

xvii



xviii	List of F	igures
f17.	The Power of a Legislative Committee to	
	Block Movement	108
f18.	Bicameralism	110
f19.	Preferences of Committee Members	112
f20.	The U.S. Senate's Filibuster Rule	
	Empowering 40 percent to Prevent the End	
	of Debate on a Bill	113
f21.	A Contract Curve in Two Dimensions	118
f22.	The Hull of Ideal Points as the Pareto Set	120
f23.	Three Persons, Two Dimensions when Preferences	
	Are Single-Peaked in Two Dimensions	121
f24.	Instability with Special Majority Rules	123
f25.	Equilibrium When There Is Radial Symmetry	124
f26.	With Majority Rule One Can Move Further and Further	
	from the Pareto Set (Wildness)	125
f27.	The 'Pull' of the Pareto Set	125
f28.	Greater Concern for One Issue (Security) Leads to Elliptical	
	Indifference Curves	129
f29.	Non-independent Issues	130
f30.	Closeness to the Median Line and Winning in	
	Majority Rule	132
f31.	Illustrating the Covering Relation	133
f32.	Eight voters, $r = yoke$ , $4r$ Contains the	
	Uncovered Set	134
f33.	Yolks for $n = 3$ and $n = 5$	135
f34.	Principal-Agent Problem	141
f35.	The Simplified Constituent-Beneficiary-Agent Problem	
	When Constituents (C <sub>1n</sub> ) Are Also the Beneficiaries (B <sub>1n</sub> )	154
f36.	The Typical Political / Policy Problem Where the	
	Constituents Aren't Necessarily the Beneficiaries	
	(Here Showing a Case of No Overlap)	156
f37.	Credible Commitment Illustrated with a Two-Person	
	Prisoner Dilemma Game	157
f38.	Two Different Systems of Veto Points	163
f39.	Outcome Prediction with Two Veto Players	164
f40.	Outcome Prediction When the Second Veto Players Have to	
	Compete	164
f41.	The Cycle in the LP	167
f42.	Liberal Paradox and Prisoner Dilemma Cycles	168



List of Figures		xix
f43.	Social Choice and Social Welfare Problems and Their	
	Political Relationship.	189
f44.	Performance of Countries on the	
	Aggregate Index	238
f45.	Poverty Rates and Social Welfare Spending	
	[Förster and d'Ercole (2005)]	239



## **Sidebars**

1	On the Power of Deduction	page 7
2	Experimental Evidence of Preference Intransitivity	18
3	Discounting Future Rewards	53
4	Types of Goods	81
5	The Incentive to Vote	86
6	One-Dimensional Policies	97
7	The Median Voter's Ideal Point Is the Equilibrium Outcome	99

XX



# **Definitions**

knowleage	page 3
expected value	13
other-regarding	15
self-interest	15
transitive	16
complete	17
indifference	17
reflexive	17
budget constraint	19
public goods	27
non-excludable	27
indivisible	27
private goods	27
excludable	27
divisibility	27
free-ride	28
crowding	28
game	30
players	31
Pareto optimality, Pareto improvement	35
sub-optimal	35
dominant strategy	37
Nash equilibrium	37
prisoner dilemma game	37
marginal benefits and costs	45
backward induction	51

xxi



exii	Definitions
rollback	51
discount rate	52
tit-for-tat	52
ideal point	95
single-peaked preferences	96
core	99
the Pareto set	101
veto players	113
indifference curves	117
contract curve	119
median line	122
covered	133
uncovered	133
the uncovered set	133
the yolk	134
externality	140
principal-agent problem	141
updating	141
rents	153
game tree	157
ultimatum experiment	164
liberal paradox	165
game form	168
decisive group	202
Borda count	213
Condorcet efficiency	216
moral hazard	231