On Riker's Theory of Political Succession

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Riker's view of the dynamical forces of political systems singles out disequilibrium, strategic voting and agenda-manipulation as the pervasive features determining the nature of political change. We shall investigate these characteristics in some detail and thereafter evaluate the methodological aspects of Riker's theory. Some observations on the general relevance of the equilibrium analysis of multi-dimensional spatial voting models for the study of political institutions are also made.

Introduction

During the past decades the social choice theory has proved to be an almost inexhaustible source of various kinds of impossibility results (see e.g. Arrow 1963; Gibbard 1973; Satterthwaite 1975; Kelly 1978). Although many of these results have been referred to in political science literature, the main use made of them has been to point out that some intuitively nice properties simply cannot go together in collective decision-making bodies of the real world because they have been shown to be incompatible. In his recent book, William H. Riker (1982) proceeds from this prima facie use of the results to a theory of political evolution which is largely based on the observation that the theory of social choice could shed light on real-world political phenomena in general and on the succession of rulers and regimes, in particular. In the following I shall first briefly outline the main tenets of the theory. This requires

- (i) the description and analysis of the basic concepts of Riker's theory, and
- (ii) the presentation of how the theory of political succession is built out of the basic concepts.

Thereafter I shall move on to the evaluation of the theory in terms of traditional standards. More specifically, I shall ask whether the theory could in principle be refuted. Moreover, I shall ask whether it can be used as an explanatory or predictive device.

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Introduction

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The Problems of Finding Out the Will of the People

One of Riker's main arguments is that all those "populistic" definitions of democracy which make use of notions like "the will of the people" or otherwise refer to the quality of the output of the collective decision-making process given individual preferences are defective and should be abandoned. The reason is that the results of social choice theory demonstrate that all preference aggregation methods are meaningless in at least one of the following senses:

- the alternative which is specified "best" by the method is upon closer inspection — worse or at least not really better than some other alternative or set of alternatives,
- the method does not guarantee that it is in the interest of the individuals participating to reveal their true opinions about the issues at hand, or
- the alternative that the method specifies as "best" depends crucially on the sequence (agenda) in which the alternatives are brought into consideration.

Each of the items 1) - 3) plays an important role in Riker's theory of political succession and we shall, therefore, consider them at some length in the following. We notice at the outset that the features 1) - 3), which Riker singles out as reasons for the conceptual breakdown of the populistic theory of democracy, are used as explanatory factors in the theory of political succession. That is, the same things that undermine one particular view of democracy are assumed to explain the patterns of succession of political regimes. Before going into the details of features 1) - 3, I would like to emphasize that the problems 1) and 3) often go together, but conceptually they can be kept distinct. The same applies to 1) and 2) as well as to 2) and 3).

Which Alternative is Socially Best?

One well-known problem in the social choice theory is the phenomenon called the Condorcet paradox or the cyclic majorities, i.e. when using a given social choice method an alternative, say a, beats the alternative b, the latter beats the alternative c, while c defeats a in terms of the same winning criterion. Could one now say that one of these alternatives is socially best if no other alternatives are available? Obviously not, as regardless of which one is singled out, there will always be another that defeats it. The problem of cyclic majorities has been known for centuries. Indeed, the problem has been "solved" in a peculiar way in some contemporary parliaments, viz. the designers of these institutions have come up with a procedure that treats the following two cases as identical.

Case I			Case II			
group 1	group 2	group 3	group 4	group 5	group 6	
a	b	c	a	b	c	
b	c	a	c	c	a	
c	a	b	b	a	b	

Let the agenda be the following:

- 1. ballot: a vs. b (a wins in cases I and II)
- 2. ballot: the winner of 1. ballot vs. c (c wins in both cases).

Here in each case we have three groups of equal size. In each case the social choice is to be made from the set a, b, c and the preferences of each group are listed below the group in the customary way, i.e. the topmost alternative is considered the best by the group etc.

Now case I is an example of cyclic majorities, while in case II the pairwise comparison of alternatives using the simple majority rule results in a complete and transitive social preference relation: c beats a, a beats b, c beats b. In other words, in case II the pairwise comparison method specifies a winner that defeats all the others in pairwise comparisons, while in case I the fact that c wins is largely "accidental" in the sense that had the sequence of ballots been: 1. a vs. c, 2. the winner of 1. vs. b, then b would have won assuming that everyone votes according to his preferences.

The procedure that we used in these examples is called the amendment procedure. In this procedure the sequence of ballots is to some extent predetermined so that a parliamentary motion is first confronted with a proposed amendment to it, the winner of that comparison is confronted with the next amendment etc., and the winner of the last comparison of this type is confronted with the status quo. At each stage the winner is that alternative which gets the majority of votes. The winner of the overall contest is the winner of the last comparison. It is particularly noteworthy that the number of pairwise comparisons performed in this procedure is n-1 if the number of alternatives is n, whereas the number of all pairwise comparisons is n(n-1)/2.

The amendment procedure always results in a unique winner (assuming that the number of voters who cast their ballots is odd), but as we observed, it does not differentiate between "accidental" and "genuine" winners. In cases I and II alternatives a and b could be interpreted as a motion and an amendment to it, respectively, while c would be the status quo. The "solution" to the Condorcet paradox consists in assuming that the social preference relation constructed on the basis of pairwise comparisons is complete and transitive. If this assumption were to hold in general, then of course no more than 2 comparisons would be needed when 3 is the number of alternatives. But as exemplified by the Condorcet paradox, the social preference relation

constructed on the basis of pairwise comparisons may well be intransitive. This possibility is effectively concealed by the amendment procedure.

One may notice in passing that although the mere decrease in the number of pairwise comparisons would guarantee that a unique winner is found, the amendment procedure has another characteristic which actually makes it conservatively biased. This is the fact that the status quo is always a contestant in the final comparison. One could say that the amendment procedure is not neutral, but discriminates in favour of the status quo.

Now the possibility of cyclic majorities with or without non-neutrality gives considerable power to the person or group constructing the agenda. Sometimes the agenda-setter in fact determines the winner if each group votes according to its true preferences. In Riker's theory of political succession the agenda-control is an important determinant of the evolution of political systems. That the cyclic majorities create the possibility of a successful agenda-manipulation can be seen from case I. Suppose that group 1 is the agenda-setter. Then the agenda: 1. b vs. c, and 2. the winner of 1. vs. a, results in the victory of a, i.e. the most-preferred alternative of group 1. Similarly, as we already noticed, the agenda: 1. a vs. c, and 2. the winner of 1. against b, brings the victory to b, the favourite of group 2. Hence, if that group were to set the agenda, there is a presumption that it would introduce the agenda just mentioned.

The Agenda-Manipulation

In the absence of majority cycles there is a non-empty set of core alternatives, i.e. alternatives not defeated by any other alternatives in pairwise contests. The converse is, however, not true. If all voters vote according to their true preferences and if there is a Condorcet winner, the agenda-manipulation is not possible, that is, the Condorcet winner will always be chosen under the amendment procedure. If, however, the agenda-setter is allowed to propose new alternatives to be voted upon, then quite new vistas are opened for agenda-manipulation, assuming again that the voters vote according to their true preferences at every stage. The reason is obvious: by introducing a new alternative the agenda-setter can sometimes create a majority cycle through the alternative that earlier was the Condorcet winner. But also other methods than the amendment procedure become now vulnerable to agenda-manipulation. For example the widely used plurality runoff method could be manipulated by the agenda-setter. Let us consider the following situation.

Case III

group 1 (1 person)	group 2 (2 persons)	group 3 (2 persons)
a	b	c
c	c	a
b	a	b

Here we have a Condorcet winner, viz. c. If the plurality runoff method is used, it will also be chosen (this is by no means necessarily the case, i.e. the plurality runoff does not necessarily choose the Condorcet winner when one exists (see Nurmi 1983)). Suppose now that the agenda-setter sympathizes with group 2 (or is a member of it) and that he realizes that there is an alternative d which is preferred to c by group 3, whereas the rest of the voters rank it lowest. That is, the preferences with respect to this expanded alternative set are the following.

Case IV		
group 1	group 2	group 3
a	b	d
c	c	c
b	a	a
d	d	b

The sizes of groups remain the same as in case III. The runoff method now eliminates alternatives a and c, and the contestants on the second round are b and d. Now b wins as presumably group 1 will vote for b instead of d. Hence, the introduction of a new alternative to the agenda results in a change of social choice even though the new alternative is not the one that is now chosen (one could easily construct an example in which the new one is chosen). We observe, moreover, that c is the Condorcet winner both in Cases III and IV. So, the presence of a Condorcet winner does not eliminate the possibilities of agenda manipulation when new alternatives are added to the agenda.

A more straightforward way of agenda-manipulation by adding new alternatives is to create a majority cycle. If the alternatives can be represented as a multi-dimensional Euclidean real space in which the voters' preferences take the form of continuous utility functions, then McKelvey's (1976; 1979) results show that the agenda-setter's control over the social outcomes is complete, provided that he knows the utility functions of every voter and the core of the voting game is empty. Under these assumptions the agenda-setter can render any alternative the winner of the game regardless of the alternative one starts with, and yet the process is at every step in accordance with the amendment procedure.

The existence of a core as well as the nature of the cycles in the Euclidean spaces has been extensively studied by Schofield (1978, 1981). The conclusions from his studies are inter alia that the non-existence of a core is a generic feature in higher dimensional voting games. He also shows that the majority cycles are dense in these games. Thus, there is nothing in the amendment procedure that would prevent the agenda-setter from utilizing possible majority cycles for his own benefit.

So, agenda-manipulation is very often possible. But what kind of influence can the agenda-setter have on the social outcome? In other words, how much can he benefit from the manipulation? McKelvey's theorems show that in multi-dimensional voting games of the kind discussed in the previous paragraph, there is no limit to his control. Indeed, the outcomes need not even be restricted to the Pareto-optimal subspace. The following example shows that the amendment procedure per se does not guarantee Pareto-optimality even in the case where the number of alternatives is finite and very small (Nurmi 1983).

Case V		
person 1	person 2	person 3
X	v	У
у	Z	V
v	X	Z
Z.	У	X

Let the agenda be the following: 1. v vs. y, 2. the winner of 1. against x, 3. the winner of 2. against z. If everyone votes according to his preferences, the winner is z. However, every voter prefers v to z. Thus, the Pareto-criterion is not satisfied. We see that the agenda-setter can by suitable manoeuvring render even a Pareto-dominated alternative the winner.

If we consider one-stage methods instead of the binary ones, the possibilities of agenda-manipulation depend entirely on the agenda-setter's ability to introduce new alternatives. It is not difficult to see that e.g. plurality voting is vulnerable to this kind of manipulation. Let us consider an example.

Case VI						
Situation	A		Situation	В		
4 voters	2 voters	3 voters	2 voters	2 voters	2 voters	3 voters
a	b	c	d	a	b	c
b	c	b	a	d	c	b
c	a	a	b	b	d	d
			c	С	a	a

In situation A, assuming that each voter votes according to his preferences, the plurality winner is a. However, if the agenda-setter is one of the three persons ranking c first and knows that there is an alternative d that would split the group of 4 voters into two equal parts as in situation B, and if he can introduce d to the agenda, then presumably c would win. Notice that the presence of a Condorcet winner in no way restricts the agenda-manipulability in plurality voting. The Condorcet winner both in situations A and B is b, which is chosen in neither case.

If the Borda count is resorted to, the agenda-setter's possibilities are in a sense even larger: now the mere number of alternatives partially determines the winner. Indeed, Fishburn (1974) has shown that excluding an alternative which has the lowest Borda score and recomputing the Borda scores for the remaining alternatives can result in a complete reversal of the order of Borda scores of the remaining alternatives. Another paradoxical feature of the Borda count — also discovered by Fishburn — is that a Borda winner can sometimes be the Borda winner in only one of those proper subsets of the alternative set to which it belongs. So introducing and/or excluding alternatives are the tools of agenda-manipulation in one-stage methods.

The same tools can also be used in multi-stage procedures, e.g. in the plurality runoff procedure. Consider the following example.

Case VII						
Situation	C		Situation	D		
5 voters	3 voters	4 voters	5 voters	3 voters	2 voters	2 voters
a	b	c	a	b	d	c
b	c	a	b	d	c	ď
c	a	b	d	c	a	a
			c	a	b	b

In situation C, assuming non-strategic voting, the winner of the runoff contest between a and c is c. If now the agenda-setter is one of the 5 persons ranking a first and knows that the alternative d would split the 4 member group as shown in situation D, then by introducing d to the agenda he could bring about the victory of a as now the runoff contestants would be a and b. If the preferential voting or — as it is sometimes called — the Hare system is used, the same manoeuvring as in case VII leads also to the choice of a instead of c.

These examples are perhaps sufficient to point to the ubiquity of agendamanipulation possibilities in practically all voting systems. But manipulation can also occur without agenda-control. Let us now look at this problem.

Strategic Voting

In the preceding we have assumed throughout that the voters vote according to their true preferences, that is, if they prefer x to y, they will vote for x in every situation where the choice is to be made between these two alternatives. Sometimes this assumption is plausible and, indeed, the very idea of "going to the people" or "letting the voters decide" seems to rest on this assumption. However, this assumption is by no means universally valid. Practical politicians have known for centuries that sincere voting — i.e. voting strictly according to one's preferences — may be short-sighted. The possibilities of benefiting from the misrepresentation of preferences or strategic voting are

particularly obvious in the case of the Condorcet paradox or in general when there is a majority cycle. But as the famous Gibbard-Satterthwaite theorem informs us, all singleton-valued non-trivial, universal and non-dictorial social choice methods are vulnerable to the strategic misrepresentation of preferences (Gibbard 1973; Satterthwaite 1975; see also Blair 1981, Feldman 1980 and Gärdenfors 1976). As most of the social choice methods used in practical politics are not singleton-valued, the bearing of the theorem on the commonly used voting systems is not quite obvious, though. Elsewhere I have shown, however, that all otherwise plausible voting methods are manipulable in the sense of Gibbard and Satterthwaite (Nurmi 1982). So we are, indeed, dealing with a very common feature of voting procedures. To get an idea of the intertwinedness of cycles and strategic voting, let us consider the example of the Condorcet paradox again.

Case VIII		
person 1	person 2	person 3
a	b	c
b	c	a
c	a	b

As was pointed out above, the agenda-setter in fact determines the outcome if every voter is completely myopic and reveals his true preference at every pairwise comparison of alternatives. Suppose that the agenda is: 1. a vs. b, and 2. the winner of 1. against c. In the absence of strategic voting the winner would be c. But obviously person 1 can benefit from not revealing his true preference at the first stage. By voting for b he can bring b to the second pairwise comparison with c. Now the winner is b instead of c. Obviously the outcome b is more to the satisfaction of person 1 than the outcome c. Obviously the outcome b is more to the satisfaction of person 1 than the outcome c. So, ceteris paribus, person 1's misrepresentation of preferences has brought him some benefit even though he does not control the agenda.

Several questions can be raised about Case VIII:

- is the possibility of strategic manipulation restricted to the binary methods only?,
- 2) is it restricted to cases of majority cycles only?, and
- 3) are the informational requirements for manipulation realistic?

The first question has already been answered negatively. The second question must also be answered in the same way, i.e. negatively. We can demonstrate this conclusion with the following example which actually is covered by Gärdenfors' theorem (1976) (see also Riker 1982, 207).

Case IX		
person 1	person 2	person 3
a	b	c
b	c	b

The agenda 1. a against b, and 2. the winner of 1. agaist c, would in the absence of strategic voting result in b which is also the Condorcet winner. However, person 3 can misrepresent his preferences as cab, whereupon a wins the first contest and loses the second leaving c as the winner, clearly the best possible outcome for person 3.

This conclusion can also be demonstrated for the plurality runoff method (which is not covered by Gärdenfors' theorem).

Case X		
3 persons	2 persons	3 persons
a	b	c
b	c	b
c	a	a

There is now no majority cycle and b is the Condorcet winner. However, if everyone votes according to his true preferences, a and c get to the second round where c beats a and is thus the winner of the entire contest. Suppose now that one of the three persons with the true preference abc, misrepresents his preference as bac. We then get the following situation.

Case XI			
2 persons	1 person	2 persons	3 persons
a	b	b	c
b	a	c	b
С	c	a	a

Now obviously b and c get to the second round where b wins. Clearly the outcome b is preferred to c by the person who misrepresented his preference.

In case XI strategic manipulation results in the choice of the Condorcet winner. This does not have to be the case, though. Let us consider the plurality runoff method in the light of the following example.

Case XII			
2 persons	3 persons	2 persons	3 persons
d	a	b	c
b	b	d	b
c	d	c	d
a	c	a	a

The Condorcet winner is now b. If every voter votes sincerely, the winner is c. Let us, however, assume that one of the three persons having the preference order abdc misrepresents his preference as dbca. Thus we get the following situation.

Case XIII			
3 persons	2 persons	2 persons	3 persons
d	a	b	c
b	b	d	b
c	d	c	d
a	c	a	a

The winner is now d, i.e. a slightly better outcome than c from the viewpoint of the person who misrepresented his preference. Notice that b, the Condorcet winner, is chosen in neither of the cases XII and XIII.

As for the third question, there seem to be grounds for arguing that the definition of the manipulability of a social choice function is too inclusive: all one needs to classify a procedure as manipulable is that there be some preference profile such that some person can benefit from the misrepresentation of preferences when a given procedure is used and all the others keep their preferences fixed. Surely this is the structural property of a procedure and does not tell much about the actual possibilities of benefiting from misrepresentation. If one has to know the entire preference profile in order to benefit from misrepresentation, then that kind of knowledge may simply not be at hand and thereby the structural property does not really affect the ability of the system to reveal the preferences of the voters. On the other hand, there are systems in which one only has to know the toughest competitor of one's favourite alternative to have all the incentives for misrepresentation. The Borda count is an example of such easily manipulable systems.

Although these remarks might suggest that a more plausible definition of manipulability should be sought, none seems to be available at the moment (interesting ideas about related problems have, however, been proposed by Niemi (1982)). For the purposes of discussing Riker's theory of succession we do not necessarily need one. Having now outlined the essential background apparatus, we are in a position to discuss the theory proper.

How the Rulers Gain and Lose Power

The central idea in Riker's theory is that one should take seriously the results of McKelvey, Plott (1967) and Schofield which indicate that a state of political equilibrium very rarely exists. That is, the outcomes of social decision processes very rarely coincide with Condorcet winners or cores of voting games

simply because the latter typically do not exist. It follows, then, that equilibrium concepts like these cannot be used as predictors of social outcomes. Rather agenda-manipulation and the strategic misrepresentation of preferences become the most important features of politics.

The main driving force of political change in general and succession in particular is dissatisfaction with the outcomes reached earlier.

The dissatisfaction is felt by only a minority when the social outcome is the Condorcet winner. But as Case IX reveals, the Condorcet winner is not necessarily the social outcome if some voter votes strategically. Moreover, typically there exists no Condorcet winner. In either case the majority is dissatisfied. This in conjunction with the very nature of losing in politics — which in Riker's view is essentially different from losing economically in so far as it involves the compulsory acceptance of public "bads" instead of losing some private benefit — gives strong incentives to the dissatisfied to change the social outcome.

Riker sees two typical ways in which the losers try to become winners:

- (1) by finding out new alternatives that defeat the current outcomes, or
- (2) by creating new issue dimensions, i.e. new criteria for evaluating the alternatives such that the social equilibrium — if it exists — is upset.

Riker (1982, 208) points out that these two ways are difficult to distinguish in practice although theoretically the difference is important: the former method works in the cases where the current outcomes are not in equilibrium, while the latter starts with an equilibrium outcome.

In principle the theory is very simple: it consists of voters, rulers and their interaction. The voters can become rulers (or leaders as Riker chooses to call them) by proposing new policy alternatives or new policy dimensions and receiving a sufficient amount or support for them. Political leadership in Riker's theory essentially involves the perception and exploitation of political dissatisfaction to defeat the current social outcomes. The rulers gain their power by proposing victorious policy alternatives. Similarly they lose their position upon becoming defeated, i.e. upon losing sufficient support for their policy alternatives.

What, then, brings about the dynamics of political succession is the ubiquity of disequilibria, agenda-manipulation and strategic preference revelation. If the equilibria were always present and if they were not upset either by agenda-manipulation or strategic voting, then political evolution would have to be explained by factors that are extraneous to politics, like changes in preferences due to technological innovations or to the composition of decision-making bodies etc. Riker's theory aims at using the mobilization of tastes as the main explanatory mechanism of political succession. There-

fore, it does not necessarily exclude the other theories that utilize extrapolitical explanantia, but rather complements them.

Can the Theory be Refuted?

Riker's theory of succession is not primarily intended to predict political events, as the author himself points out. If the social outcomes were to typically coincide with the theoretical equilibria, then prediction would be possible, but, as we have just seen, Riker's view is that equilibria are rarities and even when they exist, they can be and often are upset. So, prediction by means of theoretical equilibria is bound to fail.

It seems that Riker intends his theory mainly as an explanatory device in a fairly loose sense. In other words, his theory is a device for making certain phenomena intelligible in a way that has nothing or very little to do with prediction. Riker argues that his theory is one of "natural selection of issues" and that in general it is very much like the theory of biological evolution. Therefore, just as the emergence of new species is difficult or even impossible to predict, so is the prediction of the rise of new political issues. But — one might ask — where does the theory derive its explanatory power? Riker would probably say that the explanatory power does not stem from the theory's past predictive successes because the theory is not a predictive device. But surely the theory must say something about reality. What it says is that past political evolution can be captured in terms of the process of rise and fall of issues mediated by the search for new dimensions and/or alternatives to displace the previous ones. But that is what the theory claims, not what gives it its explanatory power or justification. The explanatory power could reside in the theory's ability to cover past phenomena of political succession. And, indeed, Riker gives examples from various historical periods to justify his theory. He does not, however, try to cover as many and different phenomena of succession as possible to give his theory "consilience" (Whewell 1858). Rather the examples are of an illustrative nature.

It seems that Riker is convinced of the explanatory power of his theory on other grounds, viz. by virtue of the theoretical results which his succession theory is based upon. In particular, the results concerning the ubiquity of majority cycles and the generic absence of equilibria plus the unlimited possibilities for agenda-manipulation in higher-dimensional spatial voting games seem to provide Riker with adequate justification for his theory of political succession. But there are some problems to be faced:

 the results on the existence of a non-empty core and the density of majority cycles, on the one hand, and the possibilities for agenda-

- manipulation and strategic voting, on the other, are not of the same nature, and
- (2) if no other justification is given, the theory actually becomes a description schema and has no empirical content whatsoever.

Let me hasten to add that I'm not at all sure that Riker would object to his theory being regarded as a description schema rather than a theory proper. As a matter of fact Riker does not use the word "theory" in discussing the natural selection of issues. His term is "model". But this, I believe, is a matter of linguistic usage more than of a substantial distinction between the two terms. The importance of problem (2) is, of course, that it determines the epistemological nature of Riker's view. Let us, however, turn to problem (1) first.

The crucial difference between

- the results on the existence of nonempty cores and the density of cycles, and
- (ii) the results on agenda-manipulation and strategic voting opportunities

is obviously the fact that the former indicate a state of affairs or, rather, the genericity of a given type of situation, whereas the latter tell us something about possibilities or opportunities. The difference is thus in the modalities expressed by the results. The immediate consequence is that while the results in class (i) could, in principle, be used in the prediction of certain types of events, i.e. that something typically is the case, the results of class (ii) cannot be used in the same way as they only suggest possibilities, i.e. that something can happen. To infer from a statement saying that something is possible generally, a statement that this something will generally occur, is simply a non sequitur.

But one could argue that the results of class (i) and class (ii) are interrelated so that *because of* the genericity of the situations in which the core is empty and the majority cycles fill the space in higher-dimensional policy spaces, the class (ii) results hold. In other words, it could be maintained that the common non-existence of equilibria creates conditions for manipulation. But this obviously will not do as manipulability is not necessarily related to majority cycles as Case IX above demonstrates. So it seems that the results themselves cannot justify Riker's theory in any other way than by suggesting that the theory of political succession is, indeed, possible.

To turn now to problem (2), could it be the case that the main justification of Riker's succession theory is that it fits any course of events in the real world? Or to put it slightly differently, could the theory be empirically empty? Indeed, as far as political succession is concerned it is difficult to imagine

a course of events that would not be compatible with Riker's theory. If a person or group displaces another person or group in a political process, then there usually is a change in policy involved. Now this change can be interpreted as the introduction of a new issue to the agenda. This issue, in turn, can upset the previous equilibrium by creating a cycle or generate a majority cycle through the previously victorious outcome. Or alternatively, the new issue can result from the agenda-manipulator's calculations aiming at splitting the ruling majority into two or more parts over some new alternative. Any of these interpretations could be given to the policy change coinciding with the displacement of one set of rulers by another one. Of course, one could imagine a situation in which ruler A is replaced by ruler B and yet there is no change in policy between the two regimes. But, then, what we are dealing with is not a political succession at all, but a sequence of events which must be explained by non-political features. It seems then that Riker's theory could be construed as an interpretation of political succession rather than a theory of it. Indeed, Riker uses the term "interpretation" in his discussion of political change. If this is the intended construal of Riker's presentation, then its epistemological nature is entirely different from that of a theory.

Upon closer inspection problems (1) and (2) amount to the same thing. Riker's theory says that anything is possible in political evolution: either stability which means that the dissatisfied have not yet found a new policy dimension or issue to upset the prevailing equilibrium, or change which means that such a dimension or platform has been found and proposed. So we are dealing with a theoretical framework that can be used in the description of political succession. It also gives general guidelines for looking for an explanation of particular occurrences in the sequence of events. It "works" beautifully in several historical cases discussed by Riker, but how couldn't it?

Lest my point be misunderstood I want to add that I don't believe Riker would object to what was said above about the nature of his ideas of political change. Rather he would probably point to several passages in his book to show that he has largely conceived his work in the same way.

The Institutional Equilibria

Despite the fact that Riker's framework is capable of incorporating both change and stability, it emphasizes disequilibrium. Indeed, its main guideline for looking for explanations of changes is to search for disequilibrating issues or dimensions. The main justification of this guideline seems to be "the paucity of equilibria" as Riker puts it (Riker 1982, 181). But this paucity refers to situations which can be described as multi-dimensional real-valued policy-spaces in which the voters have optimum points and well-defined (at least) continuous utility or loss functions. Now, if the paucity of equilibria

characterizes such situations, does it also entail that in situations relevant for political change the equilibria would typically be non-existent?

In my view the answer is no, as far as the entailment sensu stricto is concerned. For instance, if a candidate for an office is to be chosen from a fixed set X of candidates, then as long as we can do with finite-dimensional policy-space to describe the situation, there is a finite number of points to choose from. If the core is empty when the entire multi-dimensional space is considered, it does not have to be when a finite set of alternatives is focused upon. Moreover, the institutional arrangements may essentially limit the number of alternatives and/or the number of possible agendas (Nurmi 1980, 761). Shepsle (1979) has, consequently, introduced the concept of structure-induced equilibrium. Its main virtue is that it takes explicitly into account the institutional constraints on the social choice. Shepsle distinguishes two main types of constraints:

- the decentralization or subdivision of a decision-making body into committees, subcommittees etc. which then decide some issues on behalf of the body itself, and
- (ii) dimension-wise decomposition, i.e. arranging the agenda so that, for example, one policy-dimension is considered at a time.

To this list we might add the speaker's rules which set constraints on possible agendas (e.g. "the alternatives which are most widely apart are to be voted on first"). Of course, this kind of list is not exhaustive. The point, however, is that when these structural constraints are taken into account, there might well be equilibria even though there are none in the "theoretical" policy space.

A pertinent criticism can be levelled against the equilibrium analysis itself. Aldrich & Rohde (1982) argue that the equilibrium analysis simply does not ask relevant questions from the viewpoint of understanding political processes. Even in the case of there being a unique equilibrium, the mere statement that it exists does not help us to understand the process via which it is approached. In the case where there are several equilibria, we need to know why and how one of them rather than the others is approached and so on.

Now in my view this remark constitutes a more serious objection to Riker's ideas because one of the crucial criteria for evaluating theoretical frameworks is whether they direct our attention to the right kind of questions, i.e. whether they help us to gain the systematic knowledge that contributes to our understanding of phenomena. If Riker's framework does not pose the right questions, then it clearly does not satisfy this criterion of goodness. Much of this criticism turns on the issue of the usefulness of static and dynamic models. Equilibrium concepts like the core or Condorcet winner are defined in a static framework, while political succession is essentially a process, i.e. a dynamic

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concept. I think Aldrich and Rohde are right in insisting that we cannot be content with mere statements concerning the existence and uniqueness of equilibria, but should look beyond them in the sense of focusing on the dynamics of equilibrating and disequilibrating processes. But in fairness to Riker we should point out that the framework suggests exactly these kinds of questions, e.g. "is the prevalent equilibrium upset by a splinter alternative?", "what kind of new issue dimensions are proposed?", or "is agendamanipulation involved?".

All the views presented in the preceding relate to the use of Riker's framework as a descriptive device, i.e. they assume that it is used in gaining knowledge of political phenomena. We have argued that in this kind of research its usefulness depends on the plausibility or realism of the assumptions of the spatial voting theory. Let us, however, look at the framework from another, viz. normative, angle.

Descriptive or Normative Framework?

The framework for the study of political succession is a kind of a by-product of Riker's analysis of voting procedures. As such it is perhaps not the most insightful part of the presentation. I would argue that this is due to the fact that the theoretical background Riker uses — viz. the social choice theory and spatial voting models — is not particularly well-suited for descriptive purposes. Rather its most plausible use is to *evaluate* political institutions. In this kind of research the results of McKelvey, Plott and Schofield are directly relevant in telling us that certain procedures — like the pairwise comparison of alternatives with the simple majority rule — have no inherent properties that would guarantee the non-arbitrariness of outcomes eventually reached. In other words, if one wants to use these procedures and yet end up with non-arbitrary outcomes, specific precautions have to be taken.

These types of results — or in general results indicating that some phenomena or behaviour patterns are possible or impossible — upon which Riker builds his framework are indeed directly relevant for the normative study of institutions. If one is interested in excluding certain things from happening within an institution, then obviously impossibility or possibility results are precisely the kind of thing one wants to know. As we pointed out above, these results are of essentially lesser value in prediction. To know that something is possible is entirely different from knowing that something will happen. On the other hand, if one wishes to avoid some phenomena, the best one can do is to resort to mechanisms which make their occurrence impossible, while if one wishes them to occur, then one must make their occurrence possible at least. For this reason Riker's framework is better suited for normative than for descriptive purposes.

Conclusion

Riker's theory of political succession — a by-product of his more extensive treatment of democratic theory — turns on notions of disequilibrium, strategic voting and agenda-manipulation. Upon closer inspection the theory turns out to be non-predictive and hence in the Popperian sense without empirical content. This of course does not diminish its value as a theoretical framework for interpreting political succession. The scientific value of Riker's framework depends on its ability to guide research towards knowledge that would help us to understand political phenomena. It seems that although the results on which Riker builds his framework deal with rather abstract situations, he is able to suggest a number of interesting questions related to the dynamics of political succession. A more direct and unproblematic use of these results could, however, be made in the normative or evaluative study of political institutions with which the main bulk of Riker's book is concerned.

REFERENCES

Aldrich, J.H. & Rohde, D.W. 1982. "The limitations of equilibrium analysis in political science", in P.C. Ordershook & K.A. Shepsle (eds.), *Political Equilibrium*, Boston: Kluwer-Nijhoff. Arrow, K.J. 1963. Social Choice and Individual Values, 2nd ed., New York: Wiley.

Blair, D.H. 1981. "On the ubiquity of strategic voting opportunities", International Economic Review 22, 649-655.

Feldman, A.M. 1980. Welfare Economics and Social Choice Theory, Boston: M. Nijhoff.

Fishburn, P.C. 1974. "Paradoxes of voting", American Political Science Review 68, 537-546.
Gärdenfors, P. 1976. "Manipulation of social choice functions", Journal of Economic Theory 13, 217-228.

Gibbard, A. 1973. "Manipulation of voting schemes", Econometrica 41, pp. 587-601.

Kelly, J.S. 1978. Arrow Impossibility Theorems, New York: Academic Press.

McKelvey, R.D. 1976. "Intransitivities in multidimensional voting models and some implications for agenda control", Journal of Economic Theory 12, 472-482.

McKelvey, R.D. 1979. "General conditions for global intransitivities in formal voting models", Econometrica 47, 1085-1112.

Niemi, R.G. 1982. "Optimal orders of voting when others' preferences are unknown", Annual Meeting of the Public Choice Society, San Antonio, TX, March 5-7.

Nurmi, H. 1980. "Majority rule: second thoughts and refutations", Quality and Quantity 14, 743-765.

Nurmi, H. 1982. "On taking preferences seriously", in D. Anckar and E. Berndtson (eds.), Essays in Democratic Theory, Tampere: Finnpublishers (forthcoming).

Nurmi, H. 1983. "Voting procedures", British Journal of Political Science 13, 181-208.

Plott, C.R. 1967. "A notion of equilibrium and its possibility under majority rule", American Economic Review 57, 787-806.

Riker, W.H. 1982. Liberalism against Populism: A Confrontation between the Theory of Democracy and the Theory of Social Choice, San Francisco: W.H. Freeman.

Satterthwaite, M.A. 1975. "Strategy-proofness and Arrow's conditions", Journal of Economic Theory 10, 187-217.

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REFERENCES

Aldrich, J.H. & Rohde, D.W. 1982. "The limitations of equilibrium analysis in political science", in P.C. Ordershook & K.A. Shepsle (eds.), *Political Equilibrium*, Boston: Kluwer-Nijhoff. Arrow, K.J. 1963. Social Choice and Individual Values, 2nd ed., New York: Wiley.

Blair, D.H. 1981. "On the ubiquity of strategic voting opportunities", International Economic Review 22, 649-655.

Feldman, A.M. 1980. Welfare Economics and Social Choice Theory, Boston: M. Nijhoff.

Fishburn, P.C. 1974. "Paradoxes of voting", American Political Science Review 68, 537-546.
Gärdenfors, P. 1976. "Manipulation of social choice functions", Journal of Economic Theory 13, 217-228.

Gibbard, A. 1973. "Manipulation of voting schemes", Econometrica 41, pp. 587-601.

Kelly, J.S. 1978. Arrow Impossibility Theorems, New York: Academic Press.

McKelvey, R.D. 1976. "Intransitivities in multidimensional voting models and some implications for agenda control", Journal of Economic Theory 12, 472-482.

McKelvey, R.D. 1979. "General conditions for global intransitivities in formal voting models", Econometrica 47, 1085-1112.

Niemi, R.G. 1982. "Optimal orders of voting when others' preferences are unknown", Annual Meeting of the Public Choice Society, San Antonio, TX, March 5-7.

Nurmi, H. 1980. "Majority rule: second thoughts and refutations", Quality and Quantity 14, 743-765.

Nurmi, H. 1982. "On taking preferences seriously", in D. Anckar and E. Berndtson (eds.), Essays in Democratic Theory, Tampere: Finnpublishers (forthcoming).

Nurmi, H. 1983. "Voting procedures", British Journal of Political Science 13, 181-208.

Plott, C.R. 1967. "A notion of equilibrium and its possibility under majority rule", American Economic Review 57, 787-806.

Riker, W.H. 1982. Liberalism against Populism: A Confrontation between the Theory of Democracy and the Theory of Social Choice, San Francisco: W.H. Freeman.

Satterthwaite, M.A. 1975. "Strategy-proofness and Arrow's conditions", Journal of Economic Theory 10, 187-217.

- Schofield, N. 1978. "Instability in simple dynamic games", Review of Economic Studies 45, 575-594.
- Schofield, N. 1981. "Equilibrium and cycles in voting compacta", European Public Choice Meeting, Oxford, April 1981 (Essex Economic Papers No. 173).
- Shepsle, K. 1979. "Institutional arrangements and equilibrium in multidimensional voting models", American Journal of Political Science 23, 27-59.
- Whewell, W. 1858. The Philosophy of Inductive Sciences, 3rd ed., London: Parker.