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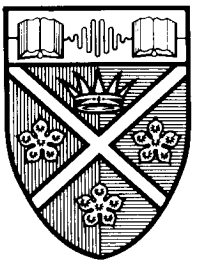

PLAYING TO WIN:

Concepts of Utility and Partner Choice in Coalition Theory

by

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1. Introduction

The politics of alliance, or coalition, are a central feature of the pursuit of political power. Barry describes political power as "the ability of an individual or of a group to change the outcomes of some decision-making process from what they would otherwise have been in the direction desired by the person or group, where the decisions made are binding on some collectivity".**(1)** The exercise of political power involves the binding imposition of a person's, or group's, will on another. Coalition is a means to this end. It takes place when two or more actors (people or groups) join forces in order to impose their political will on others.

In Western European constitutional systems, a government stands or falls on pivotal majority votes in parliament. The ability to control the outcome of these votes is the key to forming and maintaining a government. When no single party group in parliament can, by itself, be certain of majority support, any group which aspires to govern must form a coalition to this end with one or more of its rivals. "... in the real world of coalition politics, the government coalition which actually forms controls all of the power *as a bloc*, despite the fact that coalition members do not control all of the power between them if they go it alone".**(2)**

However, sharing power does have its disadvantages. Under coalition government, the rewards of governing must be shared between those rival groups which, together, control a majority of votes in parliament. Party groups in a hung parliament must choose their partners carefully, since each coalition member's demands on these rewards of governing will directly affect what can be gained by the others. What kind of coalition strategy will secure the rewards of government without incurring too many costs? Strategies of coalition formation, concerning in particular

the utility, or gain, related to partner choice, has been one of the main concerns of the literature of political coalitions.

This would appear at first sight to offer valuable guidance for parliamentary party groups facing the task of government formation after an uncertain electoral outcome. However, much of the study of political coalitions has been conceptualised for situations which are far removed from those facing 'natural' coalitions active in parliamentary politics. Before findings from these studies can be applied to such natural coalitions, there must be a thorough investigation of the underlying concepts of coalition theories and their implications for the real world.

2. Coalitions in politics: traditional approaches reassessed

Given the central role of alliance activity in the pursuit of political power, the study of coalitions in politics has a surprisingly short history. From the early 1960s, two schools of thought have established themselves. The first to concern itself explicitly with political coalitions was the game-theoretical approach. Studies in this tradition are cast as formal empirical models devised to study isolated aspects of the coalition process. The approach is deductive, with models constructed on the basis of *a priori* assumptions about the attributes and bargaining objectives of coalition actors. The other main approach in coalition studies has been dubbed the 'European politics' tradition.(3) Its roots lie deeper than the game-theoretical tradition, but it has been applied to the study of political coalitions only since the 1970s. The European politics tradition has identified attributes of multipartism and investigated them for their effects on coalition formation and duration. It has also borrowed hypotheses from systems analysis and particularly from its predecessor, the game-theoretical tradition. Only within the past decade has any systematic attempt been made to infer general

conclusions from the direct observation of coalitions which have formed in the natural settings of parliamentary politics.(4)

Game theory and the rational decision model of human behaviour: the 'size principle' as the key to partner choice

From the early 1960s, political scientists began to explore the possibility of employing methodology from the science of mathematics in the hope of obtaining predictive theories of politics. The study of coalitions in politics was one area which was expected to benefit from the new methods. With recourse to the 'games of strategy' developed by Von Neumann and Morgenstern for application to the study of economics, successive political theorists undertook to predict, from all possible coalition outcomes, those particular coalitions which could be expected to form.(5) At first, hypotheses for these studies were borrowed directly from Von Neumann and Morgenstern's proposal that 'minimal winning' coalitions would ensue - those which exclude any actor whose weight is unnecessary for the coalition to win.(6)

A variety of approaches was adopted in what was, at this stage, essentially the study of the relationships between coalition formation and utility, seen in terms of payoff distribution. The work of both Riker and Gamson upheld the minimal winning criterion by anticipating the formation of winning coalitions of minimum size.(7) Gamson's formulation of the minimal winning criterion is applicable to group actors, such as parliamentary party groups, as well as individuals. "A minimal winning coalition is a winning coalition such that the defection of any member will make the coalition no longer winning."(8) Subsequent writers produced a number of theories of political coalitions on the basis of this 'size principle'. Each sought to increase its explanatory value by modifying it in some way, drawing hypotheses from his observations of coalitions occurring in the real world of parliamentary politics. In

this way, various aspects of observed political activity were incorporated into coalition theories. Leiserson's 'bargaining proposition' maintained that, as the number of actors involved in coalition bargaining increased, there would be a tendency for each actor to prefer to form a minimal winning coalition with as few members as possible. This would result in the formation of minimal winning coalitions with the smallest possible number of members.**(9)**

It was noted that political actors are motivated at least in part by ideological and policy considerations. Theorists attempted to incorporate this aspect of utility into their work. Leiserson's contribution to this approach is the 'minimal range' criterion, which excludes from the predicted set all coalitions which contain actors that are not necessary for a coalition to be winning but which increase its ideological range.**(10)** In a similar proposition, the 'minimal connected winning coalition', Axelrod claimed that prospective coalition members would look for partners whose policy positions were compatible with their own, forming coalitions with minimal 'conflict of interest'. This would result in the formation of closed coalitions of minimal range - those of minimum range containing all actors whose policy positions lie within the boundaries of that range.**(11)** These theories all borrowed the concepts derived from game theory without employing its rigorous methods. Their hypotheses were justified on intuitive grounds.**(12)** These theories served to increase the intuitive plausibility of the size principle for natural political coalitions. However, in harnessing intuitive assumptions to concepts taken from the closed system of game-theoretical modelling, they harboured difficulties for their application to 'natural' coalitions occurring in the real world.

Problems with game theory

Both those authors who derived their theories from first principles and those who relied on the concepts generated by a game-

theoretical approach were alert to the inherent problems of their methodologies. Their main concern was whether those assumptions about actors and the coalition arena which were necessary for successful mathematical modelling could be translated to political actors and their real world environment. Game theory is, in effect, a mathematical elaboration of the rational decision model for the analysis of situations effected by actors' combined decisions.**(13)** The models employed impose a number of constraints on actors, which are elaborated here in the context of coalition theory. Von Neumann and Morgenstern, in their original treatment of the 'economic community', assumed that "the consumer desires to obtain a maximum of utility or satisfaction and the entrepreneur a maximum of profits", and, "The individual who attempts to obtain these respective maxima is also said to act 'rationally'."**(14)** Actors were held to possess the motivation and capacity for rational action, that is, the unmodified maximisation of utility. All actors share an *a priori* knowledge of all characteristics of their coalition situation. They have "complete information of the situation in which they operate and are able to perform all statistical, mathematical etc operations which this knowledge makes possible".**(15)** Rationality implies a knowledge of alternative actions and their consequences.**(16)** The early theorists of the 1960s expressed doubts on the translation of these criteria to the study of political coalitions. There were three fundamental problems involved: the nature of the actor; the nature of the coalition arena; and the concept of utility.

The coalition actor - not rational, but 'reasoning'

The main problem concerning the political actor was his supposed omniscience with regard to his fellow actors and to his coalition context. When used for mathematical modelling, rationality, the umbrella term for all the above attributes, was seen as a given property of the actors. It could not be measured on a continuum.

Actors could not be more, or less, rational.**(17)** This suggests that the failure of a real political actor to meet any one of the component attributes must render the findings of the method invalid for a natural context. The rational actor is in a position to calculate optimum coalition strategies as his priorities are unchanging and his universe is known and completely reliable. This cannot be the case for the actor - whether an individual or a party group - in the real world, whose priorities change over time and may not necessarily be ranked in order of preference, whose perceptions are not always accurate, and the features of whose political universe are too complex and unpredictable to act as a basis for calculation in the above sense. A more apt model of the relationship between the actor and his setting is one which allows for both an active role for purposive, 'reasoning' coalition actors and the very real constraints imposed on them by their coalition setting.

Parliament as the coalition arena

With regard to the coalition context, the game theory approach required *a priori* 'rules of the game' to be established for the participants' action. Although various contextual configurations were attempted, it was found that definitive, unambiguous prescriptions of rational decision could be made only in the context of two-person zero-sum games, in which there are only two players with diametrically opposed interests. In more general situations, ambiguities arose because decisions that are 'individually rational' are not necessarily 'collectively rational'. As Laver explains, "If a group of people behave so as to maximize their individual welfare, they produce a state of affairs which is worse for each of them, individually, than one which would have been produced if they had adopted more cooperative behaviour".**(18)** In a zero-sum game, a winning coalition takes all the rewards while the losers get nothing at all. Results from such games could not be applied, for example, to cases where coalition actors, motivated by the

desire to win, have common as well as conflicting interests, or where particular outcomes are preferable to others for both (or all) participants. Nevertheless, this is the case, where, for example, two or more party groups in parliament share a commitment to a particular policy initiative. Another drawback of the 'individualistic' perspective engendered by the model is that,"Political events are explained as the outcomes of decisions based on individual preferences and not, for example, on supra-individual laws of history or of the social system."**(19)** Riker notes that factors outside the bare 'rules of the game' can in real life constrain actors in their choice of coalition partner, and gives as an example the exclusion from a coalition of communist parties by the tacit agreement of other players.**(20)**

Winning - but what?

Early theorists had problems in translating the concept of utility into a political context. Von Neumann and Morgenstern had equated the aim of all participants with "money, or equivalently a single monetary commodity. This is supposed to be unrestrictedly divisible and substitutable, freely transferable and identical, even in the quantitative sense, with whatever 'satisfaction' or 'utility' is desired by each participant."**(21)** However, whereas economic activities tend "disproportionately to involve divisible objects and compensable activities", the distribution and evaluation of the worth of political rewards can be more complicated.**(22)** Even quantifiable rewards such as cabinet ministries are not normally divided beyond a ratio of one ministry to one minister; other political rewards such as the prestige of leadership are difficult to quantify at all. The ability of governments to create new ministries and committees implies a problem for early theories which were designed for a fixed pool of rewards, not a potentially escalating one. As Schelling points out, rather than being satisfied only with the kind of optimal outcome associated with zero-sum

games, real actors can be faced with a range of alternative outcomes in which any point is better for both sides than no agreement at all.**(23)** Also, party groups might have to choose between one type of utility at the expense of another: Riker pointed out that cases where a political actor chooses less instead of more need not be 'irrational' if they represent a conflict between the utility of money and the utility of other things. The problem was that early formal theories were unidimensional - they could only cope with one conceptualisation of utility. Riker's solution was to leave utility as an abstract concept, maintaining that "Politically rational man is the man who would rather win than lose, regardless of the political stakes."**(24)** In effect, he was retreating to the tautological position whereby all choices leading to action could be designated 'rational'. De Swaan chose an alternative approach to the question of utility in his 'policy distance theory' - he selected one aspect of political utility at the cost of others. De Swaan interpreted the utility which rational political actors sought to maximise as policy preferences.**(25)**

These, then, were the main constraints inherent in the game-theoretical approach. From this short summary it can be seen that both the rational decision model of human behaviour and its operationalisation through game theory harboured irresolvable problems for the study of natural political coalitions.

3. Towards an inductive 'empiricist' approach to the study of natural coalitions in politics

While criticism of the failings of formal empirical theory became increasingly widespread, few theorists offered an alternative to the inherited methods, concepts and terminology of these early studies. Most empiricists borrowed concepts from the deductive theorists without employing their rigorous methods. (Here, the term

'empiricist' is used to distinguish work characterised by a largely inductive approach from that of the formal deductivists, who also refer to their work as 'empirical'.) Some comparative work highlighted the pitfalls and country-specific applicability of the results of earlier studies, but these stopped short of advocating a comprehensive alternative approach.**(26)**

Exceptions can be found in the work of Groennings, Hinckley and Pridham.**(27)** Each of these authors has set out to develop methods specifically for the study of coalitions in a natural environment. One common concern of these empiricists is that the complexity of the coalition process is not adequately reflected in traditional methods. This is sometimes due to the partial perspective of traditional theories. For example, the early game-theorists saw the complexity of coalition activity only in terms of the number of possible permutations in coalition outcome which could be derived from particular numbers and strengths of political actors. In a natural environment, the complexity of the process lies not only with the initial resources of actors, but with the strategies employed by the actors and the influence of features within or outside the coalition context relevant to the coalition process, either singly or in combination with one another. While strategies may be limited by an actor's resources and imagination, there would seem to be no limit to the number and variety of contextual constraints an actor might face. Groennings gives anguished voice to the task of the empiricist. "What we need to do is to account for the numerous variables associated with the often excruciating decision-making processes of the parties contemplating action."**(28)** This focus on contextual constraints has been identified as the main characteristic of a new impetus in coalition studies. "Whereas second-generation research sought to confirm propositions derived from formal coalition theories, third generation work seeks to understand coalition processes as they are manifested contextually."**(29)**

4. Understanding coalition behaviour in a natural environment

The literature of coalition theory has identified a number of motivations which are held to influence partner choice axiomatically. These motivations should be evaluated in the light of observed coalition activity. It is clear that the parliamentary coalition arena is, in the language of formal coalition theory, variable sum. Coalition activity in parliaments takes the form of a mixed motive game, in that interaction between the party groups finds its expression both in conflict and cooperation. To a limited degree, it is possible to increase the pool of rewards available to be distributed between the partners of a winning coalition. How well do the assumptions and findings of coalition theory help to understand coalition formation in a natural context? Does, for example, the principle of economy of payoff suggested by the minimal winning criterion in fact influence natural coalition behaviour to any degree? Do actors choose partners whose expected policy interests are closest to their own, as suggested by policy distance theories? If these factors are influential, is it for the reason anticipated by formal theories, or for other reasons?

In the following analysis, three principles developed in coalition formation theories are used as an aid to pinpoint the reasoning actor's priorities in his choice of partner. First, there are the implications of actor size for coalition activity. This involves a consideration of the principle of economy of payoff, according to which actors choose their coalition partners on the basis of their initial resources. Next, the impact of ideological compatibility is discussed. The third influence is that of the passage of time. In the literature, time-related influences are more disparate than the other two. Here, the notions under discussion are those of trust and risk in coalition relationships.

Explaining 'minimal winning' coalitions in a parliamentary context

In formal theory, the 'minimax' principle predicted that actors would form coalitions of minimal winning size. Probably the most influential concept in coalition studies, criticism of the minimal winning criterion has been mixed. Some have rejected it outright, considering it to be one of the most misleading notions in the theory. Grofman concludes that, since the most common types of decision facing a legislative body do not give rise to zero-sum conflicts, there is no reason to anticipate minimal winning coalitions in the legislative context.**(30)** In comparative studies of coalition formation, the minimal winning criterion has been found vulnerable to tests against historical empirical data.**(31)** The success of the concept as a free-standing predictive device has varied between different countries and time periods. Moreover, its relative success as a predictor is increased when combined with a measure of ideological compatibility.**(32)**

These findings raise an interesting question. Although the minimal winning criterion clearly does not operate in a natural environment to the extent expected by, for example, Riker, it does appear to have some influence on partner choice. This calls for an investigation of the minimal winning principle and its twin components: the calculation of payoff on the basis of the initial distribution of resources between the coalition partners and the maximisation of payoff. It is suggested that coalition outcomes which could be seen as evidence for the minimal winning criterion in fact represent the constraints imposed by parliamentary government (in particular, the need to find a working majority) and other specific features of the party-group constellation and coalition context.

Riker and others claimed that, when rewards are scarce, small partners will be preferred to 'oversized' ones, since excess members of a coalition both cost something to acquire and reduce its gains. Any side payment made to a coalition partner must be deducted from the party-group internal payoff.(33) This proposition is intuitively plausible in that internal party-group patronage can be expected to exert a considerable constraint on party-group bargaining options. However, Riker was working on the assumption that party groups' payoff demands are *exactly* in proportion to their size - the value of a particular coalition outcome to a particular party group is solely and directly related to the initial size of the participants.(34) The basis of the size principle in, for example, Riker's approach, was that actors would aim for the marginal profit ensured by their optimal choice of coalition. Early game theorists, with their image of rational man, were wedded to the notion of optimal economy of payoff in coalition activity. It was not enough for a rational actor to win: he must win with the maximum possible profit to himself. De Swaan found that 'real' political actors did not appear to engage in the precise calculations required by theories which were built on the premise of unmodified maximisation. While actors competed for a place in a winning coalition, they did not appear to aim for the specific coalition configuration which, in the terms noted above for the calculation of payoff, would yield the optimum return.(35)

Practical coalition experience, then, speaks against the notion of initial resources as the exclusive determinant of payoff levels and hence of partner choice. It is certain that the ideological commitment and policy preferences of the party groups play some role both in determining payoff levels and in partner choice, as does the perceived trustworthiness of the potential partner. These influences are discussed below. Moreover, in our context, where both the total rewards of the system and the total share of rewards falling to any winning coalition are variable, the most economical

coalition for any participant cannot be determined from his initial resources alone. In these circumstances, a notional 'cheapest' coalition must necessarily be a product of the bargaining process, which will determine the level of rewards (and the costs) engendered by each coalition option. The price a party group is willing to pay for the support of another must also be affected by strategic considerations; on whether or not the partnership is hoped to last for the entire parliamentary session. Only then, in a variable sum context with the potential for escalating returns, will actors be able to estimate what level of payoff can be secured from each potential partnership. While reasoning actors in a natural environment can estimate which of their potential partners will help them to secure the greatest reward at the cheapest price, the abstract 'optimal' outcome of rational choice theory can be neither recognised nor realised with any certainty.

It is suggested that the components of the minimax principle identified in the coalition literature relate to a natural parliamentary context in the following ways. Divorced from its associations with strict maximisation and initial resources (as opposed to the compounded resources which are realised through the bargaining process), the principle of economy of payoff holds, but is reduced to little more than a tautology. To say that, given a choice of partners, an actor chooses the best expected partner at the least expected cost, is not particularly helpful in identifying patterns of coalition formation. The principles of economy of payoff and of maximising can be subsumed under the aim of winning, that is, of participating in government for as long as this is perceived to be of advantage. Initial resources, while fundamental to the ability to win, are not sufficient to ensure winning.

None of the above suggests that actors should aim for coalitions of minimal winning size. How, then, can we explain the formation of 'minimal winning' cases in a parliamentary context? There are

a number of factors which would tend to produce solutions identical to minimal winning solutions, but for reasons other than the optimising motivation advocated by Riker and others.

Ambiguities of the minimal winning solution set

One problem of the minimal winning solution is that it can apply not to one single outcome, but to a range, or set, of potential coalitions. The number of potential coalitions for any situation is determined by the number and strengths of groups represented in parliament.**(36)** In multiparty systems consisting of few viable parties (three or four, for example), the set yielded by the formula is too expansive to be of any predictive value in that the minimal winning set will comprise a large proportion of all possible outcomes. However, even with this advantage, the minimal winning criterion is not completely reliable in the prediction of coalition formation.

Particularly in a coalition setting with few potential actors, it might be that outcomes which might be seen as evidence of the size principle in fact simply reflect the constraints of the parliamentary arena, particularly the need for governments to find a working majority (referred to hereafter as the 'majoritarian constraint'). Here, if reasoning actors choose their partners in order to win, their choice of a 'satisfactory' partner, that is, one which meets the majoritarian constraint, will overlap considerably with that of the abstract rational actor's optimal, minimal winning, choice.

One flaw of minimal winning theories is that they fail to predict 'undersized' and 'oversized' coalitions, both of which frequently occur in the real political world.**(37)** The majoritarian constraint is less limited as an analytical concept: as well as its potential coincidence with a minimal winning solution, the need for parties

to work to the majoritarian demands of their parliamentary settings can give rise both to minority administrations and broad-based coalitions in some circumstances. The majoritarian constraint is not identical with the minimal winning criterion and should not be confused with it. The majoritarian constraint is, in itself, unrelated to notions of economy of payoff. Whether a minority-based working solution is found to the pressures of a majoritarian setting, or a broad-based, consensual solution, is dependent on parliamentary regulations and political culture, as well as the actors' desire to get the best out of their situation.

Minority administrations can be explained in terms of the fragmentation of opposition parties. If differences between opposition groups are so great as to prevent them from cooperating in a vote, the possession of a plurality can give a coalition which is technically 'non-winning' a working parliamentary majority.**(38)** Strom demonstrates that minority solutions can also be a rational (in the sense of reasoning), positive choice, rather than an option to be used only if a majority solution is not viable.**(39)**

There are a number of possible explanations for 'oversized' coalitions which are compatible with the majoritarian constraint, but not with the minimal winning criterion. For government coalitions de Swaan suggests that greater than minimal winning coalitions might be expected to form when political culture attaches a high value to consensus. Here, actors can be said to maximise their payoff in terms of 'concord'. Also, uncertainty as to the reliability of one coalition partner might result in the formation of a broad-based winning coalition.**(40)**

Following the example set by Herman and Pope's study of minority coalitions, recent work on the relationship between actors' size and coalition formation has concentrated on the notion of an 'effective' rather than a 'minimal' winning criterion. In essence,

these studies are analysing the response of actors to the pressures imposed on them by the majoritarian rules of their parliamentary settings.**(41)** This divorce of the size factor from the legacy of game theory is to be welcomed for the study of natural coalitions.

The hierarchical structure of system rewards and 'minimal winning' type solutions

One tendency which adds to the proportion of minimal winning coalitions registered in some Western European countries is the reluctance of the two largest party groups to form coalitions. Electoral competition between the two mass parties and public suspicion of the grand coalition go some way towards explaining this tendency. However, it is suggested that behind this reluctance is a further factor which is related to, but which cannot fully be explained by, the size in initial resources of the participants. This is the hierarchy inherent in the reward structure of parliamentary government.

Although the context of parliamentary government permits the creation of rewards, there are limits, by regulation or convention, both to the number and type of posts which can be created. Notably, the most senior posts, such as Prime Minister, are not duplicated, ensuring the perpetuation of the hierarchy. Where a hierarchy of rewards exists, there can be no basis for Gamson's proposal that coalitions among equals are preferred on the grounds that rewards will be divided equally, avoiding the need to haggle over a suitable division.**(42)** In contrast, the aspirations of one large and one small group, as long as their combined strengths can secure a working majority, are not only compatible, but mutually beneficial. A large party, with the help of a small partner, can form the government, thereby dominating the immediate distribution of rewards and the legislative activity of the coming parlia-

mentary session. A small party group, in payment for its support of a large one, gains a good share of the initial rewards, and possibly the potential to influence decisions in the coming session. At the coalition formation stage, it is inevitable that larger party groups will be in competition with one another over the top rewards of the system. Herman and Pope advance a similar explanation for occasions when an almost winning minority government chooses to expand its base forming a national coalition government with a small, often 'special interest' party.

"The formation of a majority government in such instances is in the interests of both the larger and the smaller parties. The smaller party stands a very high chance of being able to put its special interest policies into effect if it enters an administration. It is reasonable to argue that such a party will not be as interested in, or qualified to determine, for example, defence or foreign policy as it will be in controlling government policy in, for example, the agricultural area. It is also reasonable to assume that the larger party will not be too interested in those special interest policies which the smaller party feels most strongly about. At the same time the larger party also benefits by such an arrangement. It is likely to benefit from having expanded the base of the government when it experiences difficulties in passing certain issues through parliament. These issues are not usually those most cherished by the special interest party, which will lend its support, as a coalition partner, when such measures are presented to the legislature."**(43)**

These coalition partners have aspirations which are mutually compatible, given the rewards structure of their system. At an abstract level, the argument is consistent with Schelling's notion of 'comparative advantage' in bargaining: "Mutual accomodation ultimately requires, if the outcome is to be efficient, that the division of gains be in accordance with 'comparative advantage'.

That is, the things a player concedes should be those things that he wants less than the other player, relative to the things he trades for."**(44)**

Although they make no explicit reference to a hierarchy of rewards, Browne and Feste provide evidence that, under conducive circumstances, the principle of a hierarchical division of systems rewards occurs across the board in Western European national coalitions. In their cross-national survey, they noted that, if a party controls more than 60 per cent of the seats in a coalition, it will almost always receive the post of Prime Minister, and is also highly likely to be awarded three ministries perceived as 'important', those of defence, finance, and agriculture. Their conclusion is that a 'coalition leadership principle' dominates the process of payoff distribution, with only those parties expected to provide leadership for the coalition qualifying for those ministries perceived to be essential for providing leadership.**(45)**

Bueno de Mesquita's concept of 'redistributive' portfolios also implies the recognition by actors of a rewards hierarchy. He suggests that the total distribution of payoffs between coalition partners is carried out with the aim of achieving proportionality in accordance with the initial resources brought to the coalition by each partner. However, within this total payoff distribution, he identifies 'redistributive' payoffs as those which allow a greater influence on policy and hence on subsequent election returns. These are allocated with respect not only to the size of the coalition partners, but also, and more decisively, with respect to their bargaining positions and bargaining skills.**(46)** The result is a proportional allocation of total rewards which masks a less equitable distribution of qualitative rewards. The distribution of rewards within a coalition can in this way reconcile the two opposing pressures of cooperation and competition in which rival political actors find themselves: the need to arrive at a 'fair' and hence

mutually acceptable payoff and the need to better one's share of rewards.

The evidence suggests that, for natural coalitions, there is a crucial relationship between size and winning which goes beyond the simple creation of arithmetic majorities. The influence of actor size on partner choice should not be considered apart from questions of reward aspirations, both in the short and long term, and the mutual compatibility of partners with respect to the rewards structure of the coalition context.

Ideological proximity and policy-based cooperation

Along with the minimal winning criterion, the ideological commitments of partisan actors have been widely assumed to play a role in partner choice. The goal-directed activities of political parties have offered support for the view that office holding and electoral advantage are at least in part valued for the opportunities they offer to influence policy-making.**(47)** From this position, coalition theorists have argued that coalition formation will partly depend on the ability of the partners to compromise over desired policy outcomes: "Actors sometimes attempt to promote particular policies in the public sector. These policies must be negotiated and compromised. Compromise is most easily obtained with those who prefer similar outcomes. One can term this confluence of preferred outcomes 'ideological compatibility'."**(48)**

Ideology-based formal theories of coalition formation have assumed that potential coalition partners will try to minimise the ideological diversity contained in any coalition of which they are members. "The actor is likely to enter the bargaining process in a 'margin-dependent' manner by looking for that partner with whom policy differences are minimal and require only marginal adjustment: his neighbour on the scale."**(49)** In order to demonstrate

the ideological distance between actors and to calculate the most likely coalition partners in these terms, theorists have drawn up policy preference scales on which the parties in a particular country can be ranked.

As in the case of the minimal winning criterion, the conceptual and methodological approaches adopted by formal theorists to assess the role of ideology in partner choice are problematic for the natural environment. For example, there are a number of problems associated with the design of an accurate policy preference scale.**(50)** One difficulty is the fact that parties rarely compete, in ideological terms, on one dimension. While the left-right cleavage is the main focus for ideological competition in Western European party systems, parties also compete over, for example, religious, sectionalist or materialist/post-materialist divisions. Policy scales have tended to represent only one of these cleavages, but progress has recently been made towards producing comprehensive, integrated measurement scales for national contexts.**(51)** A more serious problem is that of attempting to place the parties' changing policy orientations on a static scale. This can at best permit a 'snapshot' view of ideological relationships. To select a policy scale position for a party at any set time would be to distort the relationships between the groups at other times.

Moreover, there are indications that this approach is less than helpful in understanding the influence of partisan ideology on natural coalition activity. Policy preference scales have been used to calculate, for any group, the coalition partnership with the least ideological diversity. However, our discussion above on the minimal winning criterion has shown that there is no need, in a natural environment, for reasoning actors to optimise in order to win. Theories which predict only partnerships of minimal, rather than 'tolerable' ideological diversity are unnecessarily restrictive. Interestingly, those theories which have separated the concept of ideologi-

cal compatibility from notions of optimisation have achieved better predictive results. Warwick concluded that the use of policy scales to measure ideological diversity between cabinet members had possibly contributed to distorted results. He formulated an alternative conceptualisation of ideological diversity on the basis of cleavage dimensions. Warwick's hypothesis was that coalition cabinets which span an ideological divide would prove to be less durable than others. Implicitly, this effect would work against the formation of alliances across these boundaries. Conceptualised in this way, the level of ideological diversity within cabinets was found to have a significant influence on cabinet durability.**(52)** Budge and Herman's earlier study on coalition government formation had also operationalised partisan ideology in part as a left-right cleavage division. This too was shown to have greater predictive success than its predecessors.**(53)**

A further question is whether it is possible to measure the ideological compatibility of potential partners in a way which excludes other forms of compatibility. As Budge and Herman note, it is difficult to construct an indicator of policy agreement which is independent of the fact that parties have previously cooperated in government. Kelley sees this point not only as a methodological difficulty, but as a substantive concern: "Anticipation of compatibility is partially based on prior compatibility."**(54)** Franklin and Mackie's investigation of the interaction of ideological compatibility with past coalition partnerships goes some way to disentangling the two concepts. Their findings suggest that ideology does in fact have an independent impact on coalition formation. In their test, the existence of past alliances (familiarity) and ideology were not one and the same effect.**(55)**

Trust and risk: aspects of 'political time'

"It has been persuasively argued that considerations of 'political

time' are important in accounting for the actual behavior of actors in coalition situations. ... there is some expectation that in the ongoing process of coalition formation, the passage of time imposes constraints on actors which may cause them to modify their behavior in important ways."**(56)** Here, political time is conceptualised as the interplay of trust and risk and its effect on partner choice.

An important consideration for potential coalition partners must be, on the basis of past experience, the degree of certainty that a particular partner will keep his part of the bargain. As we have suggested above, the perceived trustworthiness of potential partners can be expected to affect payoff levels and, therefore, partner choice.

Possibly the first theoretical recognition of risk in partner choice came from Gamson, who found that the risk or difficulty involved in particular coalition strategies led his experimental subjects to perform slightly differently than expected. Subjects frequently preferred to form a winning coalition that could be achieved in one step (single set of negotiations) to one which was expected to yield a better payoff, but required two steps to complete.**(57)** Where coalition negotiations are completed in more than one step, there is the chance that a potential partner might be lured away by a counter offer. The manner in which reasoning actors cope with risk again demonstrates that, within a natural environment, 'winning' is more appropriate than optimising. If the coalition game consists of a single play, without past or future, the risk factor remains absolute. Players have no information on which they can reasonably estimate the danger of betrayal. It is best to cut one's losses and accept the easiest winning solution that can be achieved. If however, as in a natural environment, coalition games are played at frequent intervals, involving groups with a consistent rationale and familiar personnel, players acquire infor-

mation with which they can estimate the risk involved in a partnership. Moreover, if they wish to exploit the greater potential return offered by two-step or other 'risky' options, they will themselves attempt to establish a record of reliability in their dealings, in order to encourage reciprocal reliability in potential partners. In this way, theorists have conceived of 'trust' as an instrumental tool to achieve long-term success in coalition relationships, even at a potential short-term cost.**(58)**

In most systems where no one actor can reasonably expect to form a single-party government, it is in the actors' interests to develop stable working relationships with all others wherever possible. This is vital at a systemic level, in order to maintain government, and that an individual actor might guard against partisan retaliation in the event of electoral reversal.**(59)** Inevitably, conventions and regulations delineating the norms of coalition behaviour and precautions against betrayal are sometimes not sufficient to prevent disappointment in collaboration. When there is a breach of trust between partners, both parties suffer. For the group which breaks away, there is the danger of being ostracised by other potential partners on account of its unreliability. In West Germany, the FDP was reduced to an opposition role when it left Erhard's government in 1966. The issue of the federal party's earlier withdrawal from Adenauer's second administration in 1956 had even led to a split in the party. The FDP has also suffered electoral reversals and a fall in membership as a result of its federal coalition changes.**(60)** The practical difficulties experienced by a group which breaks away from another suggest that no group can afford to do this too often, even in an institutional environment which permits flexibility in coalitional relationships. Of course, the existence of a potential alternative coalition partner can be expected to influence a groups' willingness to forgive breaches of trust.

While a previous disappointing experience of collaboration with another group might cause an actor to shun further alliances with the disgraced partner, a successful alliance might prove a good reason to work with the same partner again. The fact that alliances in the real world need 'only' win and not necessarily optimise makes the option of working with a known quantity most attractive. It has been suggested that this factor might override considerations traditionally held to prevent alliance, such as ideological differences.**(61)**

Political time, whether conceived of as trust and risk, or simply as the chronological logic behind the development of alliance relationships, plays a major role in coalition activity in a natural environment. The coalition strategies of reasoning actors must be developed within this context, irrespective of the number and strength of other influences.

5. Conclusion

In choosing a coalition partner, party groups in a hung parliament cannot afford to consider just one aspect of the utility which accrues from a coalition arrangement. They must weigh up a range of considerations relating to the aims of their own and other groups and the particular constraints imposed by their parliamentary and cultural context. Here, the rewards of the system are defined by what can be gained from government, and, to a limited degree, can be determined by the participants themselves. Also, these rewards, while recognised by all participants, can be valued differently by each. The relative utility of each potential coalition to a given party group must therefore be a product of the bargaining process.

We have seen that the initial level of resources brought to the

coalition by each of the members is not, in itself, sufficient to determine the payoff for participation. However, this does represent the starting point for payoff negotiations. The hierarchy of rewards rooted in the coalition context acts as a reference point in bargaining, setting appropriate levels for the reward aspirations of each participant. Would-be coalition partners use their bargaining position and bargaining skills to customise a package of rewards which gives the appearance of equity but which is of particular worth to themselves.

While party groups seek to gain from coalition activity, there is no evidence that they seek only the optimal partnership, in the sense anticipated by game-theoretical approaches. In a parliamentary context, optimising is neither feasible nor helpful in determining partner compatibility, whether seen in terms of the 'cheapest' payoff or of policy preferences. To insist on only the ideal arrangement would be to foreclose other workable options.

In fact, parliamentary experience suggests that policy preferences can be realised by working with quite diverse groups. If two partners with similar policy interests work together, both groups' interests can be met with a single legislative programme. The example given by Herman and Pope above on coalitions with 'special interest' parties also indicates that a policy coalition can be successfully conducted between groups whose main policy interests have little relevance to one another. As long as a coalition does not compromise those central policy areas with which each partner identifies, there appears to be no fundamental problem with compatibility on policy grounds.

Issues of trust and risk must be linked to the proposed duration of the coalition arrangement and the level of commitment envisaged by the participants. More can be expected, by all involved, from a formal executive coalition designed to last the entire parliamen-

tary session, than from a tacit understanding based on issue-by-issue co-operation. Some degree of trust is clearly essential in coalition relationships. A party group's assessment of the partnership which will bring the best share of rewards must take into consideration whether or not that partner can be trusted. The realisation of the utility associated with any coalition arrangement depends on the trustworthiness of the participants involved. This can be judged partly on the past behaviour of a group in coalition. The strategic position of a partner is also significant, as a group with more than one option in its choice of partner might be lured away from an arrangement by a counter offer.

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