

Electing an All-Party, Proportional, Power-Sharing Coalition, a Government of National Unity

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There are many instances when a group of people might want to choose a committee, a fixed number of individuals to undertake a particular collective function. At their AGM or annual conference, residents in a community group, shareholders of a limited company, members of a trades union, and those of a political party, may all want to elect an executive: one person to be chair, another secretary, a third treasurer, etc. All these posts require different talents and all the individual office bearers undertake necessary but separate functions for the successful operation of that committee. In like manner, a parliament may choose to elect a government of national unity (GNU). The only voting procedure so far devised by which a given electorate—those concerned at an AGM or members of parliament (MPs)—may elect, not only those whom they wish to be in cabinet, but also the ministerial posts in which each of those chosen will then serve, is the matrix vote. This paper describes 1) an experiment held at the Political Studies Association of Ireland (PSAI), undergraduate conference in Dublin on 23rd June 2012 in which participants, role playing as members of the Irish parliament, elected a GNU; and 2) the matrix vote methodology, such that others may also employ this voting system. An obvious instance would be for the election of an all-party power-sharing executive in a post-conflict zone.

Keywords: Power-Sharing; Consensus; Modified Borda Count (MBC); All-Party Coalition

Introduction

"Democracy is for everybody, not just 50 per cent and a bit."

The matrix vote¹ is a means by which any electorate may choose a fixed number of individuals, each of whom is to undertake a specific function, while all of whom are to co-operate for a common purpose. The methodology could be used, for example, for the AGM elections of executive committees by community groups, limited companies and trades unions. It could also be used for the election of:

- 1) an executive committee at the annual conference of a political party²;
- 2) a majority coalition government by the parliamentary members of the parties involved (currently, in Ireland, Fine Gael (FG) and Labour);
- 3) the chairpersons of select committees in parliament and their equivalents in local councils;
- 4) governments of national unity, (GNUs), especially in plural societies like Belgium and/or post-conflict zones such as Afghanistan and Zimbabwe.

The peace process in many such zones often involves a form of power-sharing. In these jurisdictions, general elections are often held under a system of PR, in order to ensure that all the

¹A full description of this methodology is in (Emerson, 2007: p. 61 et seq.). See also (Emerson, 2011: pp. 21-30).

²The matrix vote has often been used for this purpose by the Northern Ireland Green Party (NIGP).

erstwhile opponents are then represented in parliament. Fairness in the democratic process is, thus far, achieved, for all the successful candidates have an equal status: they are all MPs. The problem comes when forming the government, for every cabinet minister will have a *different* status: one will be the prime minister, another the minister of finance, while yet another could be in what is considered to be a relatively unimportant department such as that of culture and sport. The question, then, is how to elect a GNU, an all-party coalition cabinet such that, in the election:

- 1) Every MP is eligible to aspire to office;
- 2) Every MP is able to cast their preferences, and on an equal basis;

While in the outcome:

- Individually, each minister is appointed to that department for which, in the consensus of parliament, he/she is most suited;
- 4) Collectively, the chosen ministers represent the entire parliament in fair proportion to their party strengths.

The methodology by which an electorate may elect such a team is the matrix vote. This paper will consider that which is potentially its most important function, namely, to facilitate the election by a parliament of a GNU; accordingly, all relevant references will apply to *Dáil Éireann* (the Irish Parliament).

The said methodology enables every *Teachta Dála*, TD, (member of the Dáil) to choose, not only those whom they wish to be in cabinet, but also the particular ministry in which they

wish each of their nominees to serve. The matrix vote is PR, so the outcome is (almost) bound to be a proportional, all-party, power-sharing coalition³. It should also be noted that the methodology is "ethno-colour blind" and, as such, is ideally suited for use in plural societies, especially in post-conflict jurisdictions.

An Experiment

Earlier experiments have examined the viability of the matrix vote when those concerned have voted as party blocks⁴. This latest exercise was designed to test whether or not the methodology is robust, that is, to see how it might work even when individual voters (TDs) act independently of each other.

The Candidates

For the purposes of this experiment, a short list of only 26 TDs was produced, as shown in the annex to this paper; but a similar process would be expected to take place in real life, as each party chose its principal candidates. The 26, some of the more well known TDs, consisted of 12 Fine Gael (FG), 6 Labour, 3 Fianna Fáil (FF), 2 Sinn Féin (SF) and 3 "independents"; and the number of 26 was chosen as the best small whole number to represent the relative party strengths in due proportion. The Dáil is not, as yet, gender balanced, so nor was this short list; the balance in the latter, however, was strengthened.

The Electorate

The participants in the experiment were not representative of any national electorate, neither of the Dáil nor of the Irish population as a whole. There again, the purpose of the experiment was only to demonstrate that it is possible to identify a complex collective will, even from a group of disparate individuals. Accordingly, each person present was asked to consider themselves to be an un-named, unidentified and unaffiliated member of the current Dáil.

The Ballot Paper

It was assumed that parliament had already decided to elect a government of ten ministers, the specific departments being as listed on the ballot paper, as in **Table 1**.

The voter (the first one is male), enters the names of those whom he wishes to serve in government in "The Cabinet" column (shown in **Table 1** in tint); his list of names is his choice of cabinet and even if he casts only a 1st preference, the vote is already deemed to be valid. In addition, for all of his nominees, he may choose the portfolio in which he wants each to serve; this he does by marking the relevant box in the matrix with a letter **A**. Thus a full ballot will consist of ten different names in

the light-tinted "Cabinet" column, and then, in the matrix of the ballot, ten As, one in each column and one in each row. An example is shown in **Table 2**, with the As in a darker tint.

In case a candidate elected to the cabinet could not be allocated to the department chosen by the particular voter—this would happen if another candidate had received a higher sum for, and was thus already appointed to, that ministry—the voter, (this one is female,) is also entitled to give any or all of her nominees a **B** and, if desired, a **C** as well. An example is shown in **Table 3**.

The Voters' Profile

The total number of votes was 16. All of them were valid. All of the voters cast preferences for a full slate of 10 different names from the given short list. Most of the voters cast a number of As, though not all cast a full slate of 10 As, and, with just one exception, every A cast was also valid (i.e., there was only one instance of two As in one row or one column). Four voters also cast some Bs and Cs.

The Count

A matrix vote works on the basis of two counts: the first is to identify the ten most popular individuals—these then make up the cabinet; and the second is to allocate each of these ten to a particular ministerial department. Both counts are conducted on just the one ballot, the one set of cast preferences. The former is held according to the rules of a quota Borda system (QBS) election⁵ (Emerson, 2007: p. 39 et seq.); and the latter, as per the rules of a modified Borda count (MBC)⁶ (*Ibid*: 15 et seq.).

The QBS Count, in Theory

As its name implies, success in a QBS election is based upon either a quota of high preferences and/or an MBC total⁷. The count proceeds in stages on the basis of the following three sets of data: the 1st preference totals for single candidates, the 1st/2nd preference totals for pairs of candidates⁸, and the MBC totals. Throughout the count, the procedure goes to a subsequent only if there are seats still to be filled.

Stage 1. candidates with a quota of 1st preferences get elected;

Stage 2. if a pair of candidates gets two quotas of 1st/2nd preferences, both candidates in the pair are elected.

³The matrix vote is based on the quota Borda system (QBS), which like proportional representation—single transferable vote (PR-STV), is proportional according to the wishes of the voters. That is to say, if a quota of individuals decides to vote for all women or all anti-nuke candidates, then one such candidate is bound to be elected. In other proportional systems, PR-list, proportionality is based on party labels only.

⁴In 2009 under the last Dáil, the de Borda Institute ran an experiment in which participants acted as if they were members of the relevant political parties: FF, FG, GP, Lab, Progressive Democrats and SF (Emerson, 2011: pp. 21-30).

⁵In political circles and in any cross-community organisations, the recommended methodology is the QBS matrix vote, so the first count is under the rules of QBS, the second under those of MBC (see footnote 6). In those organisations where internal ethno-religious or even gender tensions are not so keenly felt, the simpler MBC matrix vote may be used, in which case both counts are conducted under MBC rules.

⁶In an MBC, if there are *n* options/candidates, the voter may cast *m* preferences, where $1 \le m \le n$. Points are awarded as per the rule $(m, m-1 \dots 1)$. Thus he who casts only one preference gives his favourite 1 point; she who casts two preferences gives her favourite 2 points (and her second choice 1 point); and so on. The voter is thus incentivised—but not forced—to cast a full ballot. Evidence suggests that the BC, as originally envisaged by Jean-Charles de Borda, was in fact an MBC (Saari, 2008: p. 197; Emerson, 2013: pp. 353-358).

⁷A candidate's MBC total is the addition of all his/her sums plus any unallocated points, i.e., those points where the voter has cast a preference for this particular candidate but has not cast an *A* for a ministerial post for this nominee

⁸If x people give Jean a 1st preference and Joan a 2nd preference; if y people give Joan a 1st preference and Jean a 2nd preference; and if $x + y \ge 2$ quotas then the Jean/Joan pair is said to have two quotas (Emerson, 2007: p. 41).

Table 1. A matrix vote ballot paper

					The Por	rtfolios				
The Cabinet					Job		Ju 1		O H	Ar I
Names of Candidates	[aois	Depa Fi	epari ign A I)epai Educ:	Depa os, Er Inn	Depa D	Depa stice	Эера Н	Depa Envii Comr Loc	Departs, H
in Order of Preference:	Taoiseach (PM)	Department of Finance	rtment Affairs Trade	Department Of Education And Skills	Department of bs, Enteprise a Innovation	Department of Defence	Department of stice and Equaity	Department of Health	Department of Environment, Community an Local Govt	Department of rts, Heritage an the Gaetacht
	(PM)	nt of e	Department Foreign Affairs and Trade	nt Of And	Department of Jobs, Enteprise and Innovation	nt of e	Department of Justice and Equal- ity	nt of	nt of nent, ly an	Department of Arts, Heritage and the Gaetacht
1st										
2nd										
3rd										
4th										
5th										
6th										
7th										
8th										
9th										
10th										

Table 2. A full ballot—an example

						The Por	tfolios				
Cal Nan Candid Ord	the binet nes of dates in ler of rence:	Taoiseach (PM)	Department of Finance	Department Foreign Affairs and Trade	Department Of Education And Skills	Department of Jobs, Enterprise and Innovation	Department of Defence	Department of Justice and Equality	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and theGaetacht
1st	Jean						A				
2nd	Jim		A								
3rd	Jane			A							
4th	Joe										A
5th	Joan	A								_	
6th	Jan								A		
7th	James							A			
8th	John			_		_				A	
9th	Jo				A						
10th	Jill					A					

Table 3. A full ballot—another example

						The Po	rtfolios				
Names of	Cabinet Candidates in Preference:	Taoiseach (PM)	Department of Finance	Department Foreign Affairs and Trade	Department Of Education And Skills	Department of Jobs, Enterprise and Innovation	Department of Defence	Department of Justice and Equal- ity	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht
1st	Jean		C	В			A				
2nd	Jim		A		$\boldsymbol{\mathcal{C}}$	$\boldsymbol{\mathit{B}}$					
3rd	Jane			\boldsymbol{A}		\boldsymbol{C}				В	
4th	Joe										\boldsymbol{A}
5th	Joan	A						В	$\boldsymbol{\mathcal{C}}$		
6th	Jan				В				A	C	
7th	James							A		В	\boldsymbol{C}
8th	John					$\boldsymbol{\mathit{B}}$				A	
9th	Jo				A						
10th	Jill					A					

Elected candidates are not counted in any further calculations.

Stage 3. if a pair of candidates gets a single quota of 1st/2nd preferences, the more popular, i.e., the one with the Higher MBC total, is elected;

Stage 4. candidates are chosen on the basis of their MBC totals. There are no transfers and no eliminations in QBS; furthermore, *all* preferences cast are taken into account⁹.

The QBS Count, in Practice

The valid vote was 16. The number of persons to be elected was 10. Therefore the quota was 2.

Stage 1. Joan Burton came first with 7 in number 1st preferences. Enda Kenny and Micheál Martin came joint second, so, based on their MBC totals, the former came second and the latter third:

Stages 2-3, there were no pairs with 2 quotas, and no pairs with 1 quota¹⁰;

Stage 4. the remaining seats were awarded on the basis of the MBC totals.

The results of the QBS count, the ten persons chosen to form the cabinet, are shown in **Table 4**.

The MBC Count, in Theory

Once the ten most popular candidates have been thus identified, the second count takes place, and this is based on the MBC sums, i.e., the number of A points each candidate has received for any one specific department. These sums are then considered, in descending order, allocating in turn each of the ten cabinet members to a specific ministry. If at any time there is a draw between two sums, consideration is given first to the more

popular candidate, as measured in the QBS election; and if there is still a draw, priority is given to that ministerial post for which the MBC total was the greater. This last item of data is shown in the bottom row of **Table 5** only. It gives an indication of the degree of importance to which the electorate regard each department. The discrepancy between the two overall totals—873 and 555, in the bottom right hand corner—is because of the 318 points which were cast by the voters for unsuccessful candidates.

The MBC Count, in Practice

The matrix is as shown in **Table 5**, and successful candidates are now appointed to the various ministries in accordance with the sums received. The highest of all, 55—shown in **Table 5** in blue—means (Joan) Burton gets Finance. The next highest is 40, also in blue, so Quinn takes on Education. Then comes 33—(Richard) Bruton for Finance, but this post is already allocated; the 33 total of **A** points is thus redundant, so Bruton's votes are examined to see if any of these are transferred into **B** points ... and sure enough, 9**B** points support his candidacy for Health. Redundant sums are shown in yellow, and transferred sums are in green, as in **Table 6**.

The next highest sum is 30 for Burton for *Taoiseach* (Prime Minister), but she is already in Finance, so this 30 also becomes redundant, with no transfers required as the individual concerned has already been appointed. Next comes the sum of 25, of which there are two, but it is an uncontested tie because one sum of 25 gives Gilmore Foreign Affairs and the other 25 allocates Higgins to the Jobs department. The next sum, 23, is again Gilmore's, so this is also redundant, with no transfers required. Then comes 21, for Mary L. McDonald to get Defence.

The count continues, and the next highest sum is 20, as shown in **Table 7**. In this instance both Kenny and Martin are

⁹For a comparison of PR-STV and QBS, see (Emerson, 2010: pp. 197-209).
¹⁰Pairs of candidates are more likely to occur when participants are acting in blocs.

Table 4. The OBS results.

The Cabinet			1st/2nd Preference		NO.	
Names of Elected Candidates	Party	1st Preference Totals	Totals	QBS Results	MBC Totals	
Joan Burton	FG	7	-	1st	108	
Enda Kenny	FG	2	-	2nd	48	
Micheál Martin	FF	2	-	3rd	26	
Pat Rabbitte	Lab	1	-	4th	67	
Eamon Gilmore	Lab	1	-	5th =	65	
Ruairí Quinn	Lab	-	-	5th =	65	
Kathy Lynch	Lab	-	-	7th	52	
Mary L. McDonald	SF	1	-	8th =	43	
Joe Higgins	Ind	-	-	8th =	43	
Richard Bruton	FG	1	-	10th	38	

Table 5. The first MBC matrix

	The Cabinet					The Por	tfolios						
	The Cabinet		Dej	Dep	Depa	Dep terp	Dep	Depa	De	Depart ment,	Depa tag	U _r	5
QBS Count	Names of Elected Candidates	Taoiseach (PM)	Department of Finance	Department Foreign Af- fairs and Trade	Department Of Education And Skills	Department of Jobs, Enterprise and Innovation	Department of Defence	Department of Justice and Equality	Department of Health	Department of Environ- ment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht	Unallocated $m{A}{ m s}$	MBC totals
1st	Joan Burton	30	55					13	9			1	108
2nd	Enda Kenny	20	6	8	11				3				48
3rd	Micheál Martin	20									6		26
4th	Pat Rabbitte	10	8	15	13	10	4			3		4	67
5th =	Eamon Gilmore	23		25			3		8	4	2		65
5th =	Ruairí Quinn		7		40	7			4		7		65
7th	Kathy Lynch	9	7		13	8	1		11	2	1		52
8th =	Mary L McDonald			10	7		21			3		2	43
8th =	Joe Higgins				1	25	3	9	3	2			43
10th	Richard Bruton		33			4						1	38
													555
Total r	numbers of points cast:	133	132	99	84	79	72	88	73	51	54	8	873

rivals for the post of Taoiseach, so this tie is definitely contested. It is however easily solved: Kenny is the QBS more popular cabinet member, so he gets this post. Martin's \boldsymbol{A} points are therefore transferred as per his \boldsymbol{B} points, and so to **Table 8**.

Next comes 15, Rabbitte for Foreign Affairs, but that is already allocated. His 13 for Education is also redundant, as is

Lynch's which is for Education and Burton's for Justice. Rabbitte's 15 and 13 are examined for any **B** points, and he gets 6 for Justice; from her own **A** points, Lynch does not get any **B** points; while Burton's votes are not examined for **B** points because she has already been appointed.

Then comes 11: Kenny's is redundant, Lynch's 11 appoints

Table 6. The second MBC matrix

						The Po	rtfolios					
The	Cabinet	Tao	Dep	Departme	Departm A	Departme p Ir	Departı	Der Justice	Depart	Dep Environn and	Departmer and t	Unallo
QBS Count	Names of Elected Candidates	Taoiseach (PM)	Department of Finance	Department Foreign Affairs and Trade	Department Of Education And Skills	Department of Jobs, Enter- prise and Innovation	Department of Defence	Department of Justice and Equality	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht	Unallocated As
1st	Joan Burton	30	55					13	9			1
2nd	Enda Kenny	20	6	8	11				3			
3rd	Mcheál Martin	20									6	
4th	Pat Rabbitte	10	8	15	13	10	4			3		4
5th =	Eamon Gilmore	23		25			3		8	4	2	
5th =	Ruairí Quinn		7		40	7			4		7	
7th	Kthy Lynch	9	7		13	8	1		11	2	1	
8th =	Mary L. McDonald			10	7		21			3		2
8th =	Joe Higgins				1	25	3	9	3	2		
10th	Richard Brton		33			4			9			1

Table 7. The third MBC matrix

т	The Cabinet					The Po	ortfolios					
QBS Count	Names of Elected Candidates	Taoiseach (PM)	Department of Finance	Department Foreign Affairs and Trade	Department Of Education An Skills	Department of Jobs, Enterprise and Innovation	Department of Defence	Department of Justice and Equality	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht	Unallocated As
1st	Joan Burton	30	55					13	9			1
2nd	Enda Kenny	20	6	8	11				3			
3rd	Micheál Martin	20		10							6	
4th	Pat Rabbitte	10	8	15	13	10	4			3		4
5th =	Eamon Gilmore	23		25			3		8	4	2	
5th =	Ruairí Quinn		7		40	7			4		7	
7th	Kathy Lynch	9	7	•	13	8	1		11	2	1	
8th =	Mary L. McDon- ald			10	7		21			3		2
8th =	Joe Higgins				1	25	3	9	3	2		
10th	Richard Bruton		33			4			9			1

Table 8. The fourth MBC matrix

- TO	G.11. 4					The I	Portfolios					
	ne Cabinet	H	П	Dep Aff	Depa	Dep Ent	Dej	D Just	Depa	D Cc F	Dep and	Una
QBS Count	Names of Elected candidates	Taoiseach (PM)	Department of Finance	Department Foreign Affairs and Trade	Department Of Edu- cation And Skills	Department of Jobs, Enterprise and In- novation	Department of De- fence	Department of Justice and Equality	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht	Unallocated As
1st	Joan Burton	30	55					13	9			1
2nd	Enda Kenny	20	6	8	11				3			
3rd	Micheál Martin	20		10		10					6	
4th	Pat Rabbitte	10	8	15	13	10	4	6		3		4
5th =	Eamon Gil- more	23		25			3		8	4	2	
5th =	Ruairí Quinn		7		40	7			4		7	
7th	Kathy Lynch	9	7		13	8	1		11	2	1	
8th =	Mary L McDonald			10	7		21			3		2
8th =	Joe Higgins				1	25	3	9	3	2		
10th	Richard Bruton		33			4			9	9		1

her to Health, which renders Bruton's 9B points redundant, and he gets 9C points instead for the Environment.

We move on to the next highest matrix sum, which is 10. Martin's sum of 10B points for Foreign Affairs is redundant, so he gets 10C points for Jobs. But this too is redundant. Rabbitte's two 10 s are also redundant, but he gains no more B points. McDonald's 10 is redundant as well, as are Burton's 9, Lynch's 9 and Higgins' 9.

Almost done: **Table 9**. Bruton's 9 for Environment now comes into play. We move on to 8: Kenny's, Gilmore's and Lynch's 8s are all redundant, as is Rabbitte's, but only Rabbitte's 8 is eligible for a transfer of **B** points, he being the only one of these four individuals not yet appointed. When it comes to 7, Quinn has three of them, while Lynch and McDonald both have one; but all of these 7 s are redundant. Thus it is the sum of 6 which sees the final two appointments: Martin to Arts and Rabbitte to Justice.

The final result, therefore, as shown in **Table 10**, is an all-party coalition of 1 FF, 3 FG, 1 Ind, 4 Lab and 1 SF.

An Analysis

As noted above, the electorate was not in any way representative. And while the voters were able to talk to each other, most proceeded to act independently: indeed, not one ballot resembled another, not even in their 1st and 2nd preferences, let alone in all ten.

In such a matrix vote, a voter may choose any one of 26 candidates for her 1st preference; any one of 25 for her 2nd; any one of 24 for her 3rd, and so on. In other words, there are $26!/16! > 19 \times 10^{12}$ different ways of voting. In theory, then, in

an un-whipped Dáil, the chances of any one ballot being even similar to another would be slim.

Now the more choices the individual TDs have, the more difficult it is for any party leader or whip to control his/her parliamentary party. Accordingly, the matrix vote is ideally suited to a free vote.

Granted, the electorate in this experiment—16 persons—was small. Nevertheless, the above evidence suggests that this system is capable of application, no matter how many members are in the parliament, no matter how (small or) large the number of ministers to be appointed to cabinet.

The Psychology of the Matrix Vote

In any matrix vote election for a GNU cabinet of ten ministers, in a parliament of, let us say, four parties—W, X, Y and Z, with 40, 30, 20 and 10 per cent of the seats—each party could expect to win 4, 3, 2 and 1 seats respectively of such an executive. Any W party TD, therefore, could well want to cast four or maybe five preferences for her own party colleagues, but would be wise to cast any other preferences for those whom she con siders to be the best from the other parties. Such a course of action is to her advantage because, as suggested earlier (see footnote 6), an MBC incentivises the voter to cast a full slate of ten preferences.

Overall, then, the said TD will have more chance of getting her favourite candidates elected if she casts all ten preferences; and more chance of influencing the final outcome if she votes on a cross-party basis. This is the foundation stone of the ma trix vote, but it is also, surely, the core of any multi-party coalition: that TDs talk with each other, and that they vote with each

Table 9. The penultimate MBC matrix

						The Po	ortfolios					
The	Cabinet	Taoi	Depa F	Dej Fore an	Depa Edua	Depa Jobs, and	Depa I	Dep: Ju: E	Dep:	Depa Env Comu	Depa Arts	Jnalloc
QBS Count	Names of Elected Candidates	Taoiseach (PM)	Department of Finance	Department Foreign Affairs and Trade	Department Of Education And Skills	Department of Jobs, Enterprise and Innovation	Department of Defence	Department of Justice and Equality	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht	Unallocated $A\mathbf{s}$
1st	Joan Burton	30	55					13	9			1
2nd	Enda Kenny	20	6	8	11				3			
3rd	Micheál Martin	20		10		10					6	
4th	Pat Rabbitte	10	8	15	13	10	4	6		3		4
5th =	Eamon Gilmore	23		25			3		8	4	2	
5th =	Ruairí Quinn		7		40	7			4		7	
7th	Kathy Lynch	9	7		13	8	1		11	2	1	
8th =	Mary L. McDonald			10	7		21			3		2
8th =	Joe Higgins				1	25	3	9	3	2		
10th	Richard Bruton		33			4			9	9		1

Table 10. The outcome, the final matrix

	m						The Po	rtfolios					
	The Cabinet		Tao	Dep 1	Depa eign	Dep Edu	Dep Jobs and	Dep 1	Dep Ju I	Dep	Dep Env Com	Dep Art and t	MBC
QBS Count	Names of Elected Candidates	Party	Taoiseach (PM)	Department of Finance	Department For- eign Affairs and Trade	Department Of Education And Skills	Department of Jobs, Enterprise and Innovation	Department of Defence	Department of Justice and Equality	Department of Health	Department of Environment, Community and Local Govt	Department of Arts, Heritage and the Gaeltacht	MBC totals
1st	Joan Burton	FG		55									108
2nd	Enda Kenny	FG	20										48
3rd	Micheál Martin	FF										6	26
4th	Pat Rabbitte	Lab							6				67
5th =	Eamon Gilmore	Lab			25								65
5th =	Ruairí Quinn	Lab				40							65
7th	Kathy Lynch	Lab								11			52
8th =	Mary L. McDonald	SF						21					4
8th =	Joe Higgins	Ind					25						43
10th	Richard Bruton	FG									9		38

other. The former interaction will be more likely if the structures for the latter are already in place. Indeed, this inclusive methodology will probably encourage co-operation, just as the procedures laid down in the Belfast Agreement led to "the departmental allocations [being] agreed in advance" (Wilford, 2009: p. 186).

In the above experiment, because some voters made use of their **B**s and **C**s, no one cabinet member was appointed to a ministry by default, i.e., by being the last person left for the one remaining department. The chances of such under the present arrangements in the Belfast Agreement are actually quite high¹¹, and while a similar case is always possible with a matrix vote, the prospects in a full Dáil of any one minister being appointed to a ministry for which he/she has no support (a sum of zero) are minimal. Indeed, experience suggests that the use of inclusive voting procedures like the MBC and QBS can be the very catalyst of consensus.

Conclusion

In 2008, at the beginning of the most recent financial crisis in Ireland, there were many calls for a GNU. There was next to nothing, however, on a methodology by which such a cabinet could be (s)elected.

Many other countries have had similar calls: the UK had a GNU during the slump and again in WWII; some Belgians were asking for a GNU during their recent protracted paralysis on government formation—it eventually took them 541 days; Greece in its present fiscal difficulties has also heard such suggestions, and so on. There have also been calls for powersharing and unity governance in many plural societies, especially those which have endured internal conflicts: Afghanistan, Bosnia, Cyprus, Egypt, Honduras, Iraq, Kenya, Lebanon, Libya, Northern Ireland and Zimbabwe, to name but a few. Those which have decided to form a GNU have usually relied on a purely verbal process, and often these discussions have been problematic and protracted; Iraq, for example, took 249 days (Emerson, 2012; p. 173).

Only one country has moved to a form of permanent all-party governance without first suffering a crisis, namely, Switzerland, where use is made of a mechanism called a magic formula¹². Other attempts at devising a mechanism by which a GNU might be chosen have been seen in some conflict zones but, in many instances, sectarianism has often, in effect, thus been institutionalised. The arrangements of the Belfast Agreement, for example, are one of a few reasons why it "remains grounded in the very structures it aspires to transcend" (Taylor, 2009: p. 320); the Agreement uses both party labels and designations. In similar fashion, Bosnia uses ethno-religious distinctions, while Lebanon differentiates on the basis of confessional beliefs.

As noted in the introduction, however, the matrix vote, in

contrast, is "ethno-colour blind". It is fair, it is proportional, and it is suitable for any post-conflict society because it caters for all in that society on a non-sectarian basis; furthermore, it will cater for all in the future, when hopefully any ethno religious tensions will be less prominent.

The matrix vote is the only voting procedure so far invented by which an electorate—a parliament—may elect a fixed number of persons to form a team, a committee, a cabinet—a government—such that each elected member has a *different* status, as chosen by that electorate. In essence, therefore, it is ideally suited for any society which aspires to a more inclusive polity. The chances that this methodology might find application, not only in Dublin and Belfast, but in other jurisdictions too, are therefore high

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¹¹The bigger parties take it in turns to appoint the executive of ten ministers. ¹²In 1959, Switzerland initiated a collective presidency called the Swiss Federal Council, and party nominees are appointed to this body based upon a *Zauberformel* of 2:2:2:1 ratio among the four largest parties.

P. EMERSON

Annex 1 Short List of 26 TDS

	Short List of Potential Ministers	
FINE GAEL (12)	FIANNA FÁIL (3)	SINN FÉIN (2)
Richard Bruton	Micheál Martin	Gerry Adams
Simon Coveney	Éamon Ó Cuiv	Mary Lou McDonald
Lucinda Creighton	Willie O'Dea	
Jimmy Deenihan		
Frances Fitzgerald		"INDEPENDENTS" (3)
Phil Hogan	LABOUR	Joan Collins
Enda Kenny	Joan Burton	Joe Higgins
Nicky McFadden	Eamon Gilmore	Maureen O'Sullivan
Michael Noonan	Brendan Howlin	
James Reilly	Kathleen Lynch	
Alan Shatter	Ruairí Quinn	
Leo Varadkar	Pat Rabbitte	

Abbreviations

BC: Borda Count.

DUP: Democratic Unionist Party.

FF: Fianna Fáil. FG: Fine Gael. GP: Green Party.

GNU: Government of National Unity.

Ind: Independent. Lab: Labour.

MBC: Modified Borda Count.

MLA: Member of Legislative Assembly (NI).

MP: (= TD) Member of Parliament.

NI: Northern Ireland. NIGP: Northern Ireland GP.

NUI: National University of Ireland.

PR: Proportional representation.

PR-STV: PR—Single Transferable Vote.

PSAI: Political Studies Association of Ireland.

QBS: Quota Borda System.

SDLP: Social Democratic Labour Party.

SF: Sinn Féin.

STV: Single Transferable Vote.

TD: (= MP) Teachta Dála (Member of Dáil Éireann, the Irish Parliament).

UUP: Ulster Unionist Party.

Definitions

All-party: the term "all-party" implies all the larger parties, but it does not exclude any of the smaller parties or even any independent TDs.

Sum: for the purposes of this article, a "sum" is the number of points a candidate gets for any one specific ministerial department.

Total: while a total refers to all the points a candidate receives—i.e. a total is the addition of all his/her sums (plus perhaps any un-allocated points—see footnote 7).