

# THE NEXT SCOTTISH REFERENDUM

*Peter Emerson*

The arrangements will conform to or exceed the best international practice.  
(Scottish Government 2009, para 10.22)

## ABBREVIATIONS USED IN THIS ARTICLE

AMS	additional member system	AV	alternative vote
BC	Borda count	DUP	Democratic Unionist Party
FPP	first-past-the-post	IRV	instant run-off
MBC	modified BC	MMP	multi-member proportional
PR	proportional representation	SDLP	Social Democratic and Labour Party
SNP	Scottish National Party	STV	single transferable vote

## INTRODUCTION

The way decisions are taken is key to any political structure. In a representative democracy, there are two aspects. Firstly, how do people elect

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their representatives? Secondly, how do those representatives in parliament, or the people themselves in regional/national referendums, then make their decisions?

The first question is often under scrutiny, not least in Scotland because it has four different electoral systems: proportional representation, single transferable vote, PR-STV, for local elections; multi-member proportional, MMP, for Holyrood; first-past-the-post, FPP, for Westminster; and a PR-list system for the Euro elections.

On the second aspect, however, decision-making, there is comparatively little debate. Most politicians and many observers assume that the principle of majority rule means that decisions should be taken by majority vote. And if there are only two options 'on the table', such a conclusion is fair. Intricate or sensitive situations of such binary choices may require a variation of the majority vote: on constitutional matters, some jurisdictions use weighted majority voting;<sup>1</sup> in the European parliament, countries large and small have different weightings in what is called qualified majority voting;<sup>2</sup> Switzerland uses twin majority voting in its referendums, such that success in a ballot depends not only upon a majority of voters but also upon a majority of the cantons; and some plural societies use special voting (as it is called in Belgium) or consociationalism (to use the term current in Northern Ireland), in which the outcome depends upon two majorities, both Fleming and Walloon, both Unionist and Nationalist.<sup>3</sup> All of these variations, however, are still majoritarian; so the problem under discussion is invariably seen to be dichotomous; the voting procedure is still adversarial; and the ballot yet again asks the representative or voter to choose either/or, yes or no, for or against.

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<sup>1</sup> *The normal weighting is two thirds, as in South Africa. But it can go up to five sixths, as in the Finnish parliament. (Emerson 2002, p 18.)*

<sup>2</sup> *This form of weighted voting was first used in the Council of Constance, 1414-7. (Mclean and Urken 1995, p 20.)*

<sup>3</sup> *In effect, each 'constituency' has a veto, and in the Bosnian variant, there are three of them. When used in the NI Assembly, members are required to 'designate' themselves as 'unionist', 'nationalist' or 'other', which is a further disadvantage.*

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If there are indeed just two options possible, then, as implied above, one or other of the above procedures is probably acceptable.<sup>4</sup> When the question is obviously multi-optional, however, as it is in the case of Scotland's constitutional future, majority voting may be inappropriate.<sup>5</sup> For example, on those occasions when there are more than two options and when no one option enjoys more than 50 per cent first preference support, any use of a majority vote could well give the wrong outcome.<sup>6</sup> Accordingly, different procedures should at least be considered, and in rather more detail than is the case in either of the two recent documents from the Scottish Government (2009 and 2010).

Many people, however, are imbued with a 'mystique of the majority' (Dummett 1984, p 178), and '... there is a surprisingly strong and persistent tendency in political science to equate democracy solely with majoritarian democracy and to fail to recognise consensual democracy as an alternative and equally legitimate type' (Lijphart 1999, p 6).<sup>7</sup>

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<sup>4</sup> *Even on questions which appear to be two-optional, however, as under Scottish law, there may be more than two ways of answering. So too in politics. In a 1955 referendum in Sweden on what may be the most unambiguous dichotomy – 'which side of the road shall we drive on?' – the ballot paper offered three options: 'left', 'right', 'blank'... and over 40,000 people voted 'blank'.*

<sup>5</sup> *'All methods of [voting]... in which each voter expresses only his [first preference] are... unfair. To count these votes... is to use the worst and least subtle scale by which to measure a quality or a moral entity such as opinion...' (Morales 1797; Mclean and Urken 1995, p 214). The quotation talks of elections, but he goes on to discuss decision-making 'which currently [is] dealt with by similar and even more erroneous methods...' (ibid., p 220).*

<sup>6</sup> *If, in a three-option debate on options A, B and C, 4 persons have 1<sup>st</sup>-2<sup>nd</sup>-3<sup>rd</sup> preferences A-B-C, 3 have preferences B-C-A and 2 have preferences C-A-B, then there exists a Condorcet cycle, the so-called paradox of voting. A is more popular than B, or A > B, by 6:3; furthermore, B > C = 7:2 and C > A = 5:4. So A > B > C > A... ad infinitum. If the debate is resolved by taking two majority votes, and if the first vote is A v B, the winner will be C, 5:4; if the first vote is B v C, the victor will be A, 6:3; and if C v A, success will belong to B by 7:2.*

<sup>7</sup> *In using the term 'consensual democracy', Lijphart is here referring to consociationalism.*

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If a new method were to be adopted for the Scottish referendum, the implications could be several. When there are more than two options on the agenda in other complex and controversial political debates, in Holyrood or local councils, a similar form of multi-option voting could be used. If, furthermore, resort were made to preference voting, and if the adopted procedure for the count of such votes were non-majoritarian, as in a Borda Count, BC, then not only the method of majority voting but also the polity upon which it is based, majority rule, might come under question. If, as a result, majoritarianism was seen to be too adversarial, a different form of governance could be tried, and one possibility is that power sharing under a Government of National Unity could then become the norm. The prospects for Scotland, which in its Constitutional Convention spoke of moving away from the confrontational style which is so much a part of Westminster, could therefore be very interesting. Elsewhere – in Afghanistan, Bosnia, Iraq, Honduras, Kenya, Lebanon, Northern Ireland and Zimbabwe, to name just a few jurisdictions where power-sharing has been implemented or at least discussed but where a majoritarian milieu still clouds the local debate – the consequences could be even more profound.

Accordingly, this paper will first examine the accuracy of majority voting in general, and then discuss other referendums, both two-option and multi-option, in these islands and abroad. Next it will question the role of the Scottish Government, and finally it will examine some of the other voting procedures by which a referendum could be undertaken.

## **MAJORITARIANISM**

The history of the two-option majority vote starts in Greece in 508 BC, with the Constitution of Cleisthenes, and in those days decisions were taken by majority vote, either by hand or with pebbles. Elections were not so frequent, and more faith was placed in selection by lot. For decision-making, however, majority voting was considered to be adequate, and the first criticism did not come until the Romans, when Pliny the Younger suggested plurality voting in AD 105. The main advances in social choice came later still, with Ramon Lull, Nicholas Cusanus, and then the pair of Jean-Charles de Borda and Le Maquis de Condorcet, in the 12<sup>th</sup>, 15<sup>th</sup> and 18<sup>th</sup> centuries respectively, all of whom

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spoke of preferential voting procedures. Alas, few had any influence on their political masters.<sup>8</sup>

Despite the words of these scientists and philosophers, majority voting is still common today, not only in referendums, but also in parliaments and party caucuses, and indeed elsewhere in society, in courts, business, community associations, and so on. It is a method which is certainly open to abuse, as has been shown by, amongst others, Lenin, Mussolini, Stalin, Hitler, Pinochet and Mugabe;<sup>9</sup> in most of their ballots, the dictator dictated, and, of course, the answer was the question. Such was the case when Napoleon became Emperor in 1804 with 99% support, or when Saddam Hussein was confirmed in office in 2002 with 100%. The questions have similarly been ‘fixed’ in many majority vote referendums held to resolve – or not, as the case may be – questions of sovereignty, as in Yugoslavia;<sup>10</sup> the same method has been used or proposed in the Caucasus, East Timor, Kashmir, Sudan/Darfur and other conflict zones (Emerson 2002).

In contrast, a number of jurisdictions have used multi-option voting, both in governance and in referendums. Scandinavian parliaments are among the few to use multi-option voting – the Norwegians allow for the possibility of two-round voting, although the last time they did so was in 1972 – while Finnish and Swedish MPs use serial voting when debating amendments. Multi-option referendums have been used rather more extensively, starting in New Zealand in 1894, and since then in Australia, Cambodia, Chile, Mexico and Singapore,

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<sup>8</sup> *Condorcet actually died, and was almost certainly killed, in the Terror.*

<sup>9</sup> *Lenin used a majority vote in 1903 in London at a meeting of the Russian Social Democratic Workers’ Party. He won, by ‘the accidental arithmetic of a single ballot’ (Deutscher 1949, p 71), and named his faction the bolsheviks, members of the majority, from its Russian translation, bolshinstvo. The minority, the menshinstvo, were called the mensheviks.*

*Mugabe actually lost his 2000 referendum, but he had already decided it was to be non-binding. Pinochet also lost the 1988 referendum on his presidency, a ballot he had assumed he would win in the wake of his first referendum success eight years earlier.*

<sup>10</sup> *In fact, ‘all the wars in the former Yugoslavia started with a referendum,’ Oslobođenje, 7.2.1999.*

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for example, on topics such as electoral reform in Slovenia<sup>11</sup> and nuclear power in Sweden.<sup>12</sup> In 1982, an interesting instance took place in Guam on the question of constitutional status. There were six options on the ballot paper, and just in case that was not enough, a further seventh option was left blank, so that any person(s) with a different idea could (campaign), insert and then vote for their own option.<sup>13</sup> Nearly all of these multi-option ballots were conducted under a version of the two-round system. None of them used preference voting.

It is not only the malign dictator who has manipulated the majority vote in order to get the desired outcome. A similar abuse takes place in parliaments as when, for example, in 1989, Margaret Thatcher ignored certain alternative options – the Lib-Dem policy of local income tax, let alone the Green Party’s land tax – and instead allowed only her own policy onto the order paper – poll tax or *status quo?* – in a straight majority vote.

Admittedly, in such situations, there is an outcome. Whether the result of such a two-option ballot actually represents the collective will of the given electorate is, however, often open to question.<sup>14</sup> Consider, for example, the 1997 Welsh referendum on devolution, where the result was much tighter than that which pertained in Scotland: ‘status quo’ 49.7%, ‘devolution’ 50.3%. But Plaid Cymru had wanted four options: ‘self-government in Europe’, ‘a law making parliament’, ‘an elected assembly’ and ‘no change’.<sup>15</sup> If ‘self-government in Europe’ had been included, if a three-option plurality vote had been held, and if but 1% of the Welsh electorate had voted for this third option, the outcome would presumably have been: ‘status quo’ 49.7%, ‘devolution’ 49.3%, and ‘self-government in Europe’ 1.0%; in which case, the *status quo* would have won. Logically, therefore, that referendum tells us, not that the Welsh people wanted devolution, and not even that the majority of

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<sup>11</sup> *In 1996, Slovenia had three options under discussion; these were presented as three separate majority votes... and all three were lost.*

<sup>12</sup> *Of the three options on the 1980 ballot, two were presented as a ‘yes’ and one as a ‘no’.*

<sup>13</sup> *Plebiscite Election, Guam Election Commission 1982.*

<sup>14</sup> *This is definitely the case if and when there is a Condorcet cycle (footnote 6).*

<sup>15</sup> *A Real Choice for Wales, Dafydd Wigley MP, Plaid Cymru, September 1996.*

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Welsh people wanted devolution; the only *definite* conclusion are these: that Tony Blair wanted a majority of the Welsh people to want devolution; and given the choice, a majority preferred devolution to the status quo.

When the ballot is thus restricted to fewer options than there should be, when it is therefore no longer ‘a free ... referendum’ (Scottish Government 2010, introduction), some voters may tend to vote tactically. The two-option majority vote is often described as ‘simple’ (*ibid*, para 1.24), but this is not necessarily true. In situations where there are more than two options ‘on the table’ but only two on the ballot paper, the voter whose first preference is not on that ballot may well find the question extremely difficult. An equivalent, in electoral terms, might be a Scottish constituency in which four candidates were standing in an FPP Westminster election – Lab, Lib-Dem, the Scottish National Party, and Tory – and where, in this particular constituency, the polls suggested there were two front-runners; if neither represented Ms. X’s first preference, she might choose to vote tactically, in which case, she would be confronted by a choice between her second and third preferences or, at worst, by a dilemma between her third and fourth, potentially ‘the devil and the deep blue sea’.

## **OTHER REFERENDUMS IN THESE ISLANDS**

Just as politicians in power tend to support the simpler electoral systems, so too many of them maintain majority voting in decision-making. As an electoral system, FPP is advantageous to the bigger parties, and so too are the simpler PR-list systems (especially if held under a d’Hondt interpretation of the count). Meanwhile, in decision-making, both in referendums and parliamentary votes, majority voting is also to their liking, as it invariably gives (some of) them considerable influence over the agenda.

A majority vote can be manipulated when the ballot question is drafted, as noted above, or when the rules for the conduct of the poll are decided. The latter was the case in Scotland’s 1979 poll on devolution, when the UK’s Labour Government, which at that time had to cater for many back-benchers who opposed devolution, imposed a threshold of not just 50% of the turnout, but of 40% of the electorate.<sup>16</sup>

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<sup>16</sup> *As observed in (Scottish Government 2009, page 11), the majority lost.*

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In 1949, however, the UK Government enabled the people of Newfoundland to hold a three-option ballot on their constitutional future.<sup>17</sup> Given this precedent, there can be no constitutional reason why Scotland could not also use a multi-option procedure, be it a single preference plurality vote, or a preferential procedure such as the alternative vote, AV. Initially, in the run up to the first referendum on devolution in 1997, the SNP argued for a ‘multi-option referendum, [which] would give Scots a three-way choice between the SNP’s independence in Europe policy, the Convention’s devolution scheme and the Tories no-change stance’ (SNP 1992). Westminster, however, thought otherwise, and the referendums involved two majority votes. In campaigning for multi-option ballots, both the SNP and Plaid Cymru argued for the count to be conducted under the rules laid down for AV.<sup>18</sup> So why has it changed its mind in favour of two-option questions and majority voting?

Given the paucity of debate on decision-making, the fact that the Scottish Government even mentions multi-option voting is to be welcomed. Its treatment, however, is rather glib. ‘The Scottish Government has ... considered [only] two of the most easily understandable voting methods.’ (Scottish Government 2010, para 1.23, p 15.) It says, ‘It is well established in the UK and across western Europe, that referendums should be decided by those who choose to vote on a simple majority basis’ (*ibid.*, para 1.30, p 17), but it makes no mention of the multi-option referendums used in Finland, for example. It also says, somewhat disingenuously, that ‘many of the more complex methods have never been used in national elections or referendums, and none have been used in a comparable referendum,’ (*ibid.*, para 1.23, p 15); in so saying, it does not elucidate what those methods are, nor does it acknowledge that a BC is used in Slovenian elections or that PR-STV, as used in Ireland, North and South, and not just in Scotland, is one of the most complicated systems ever invented. But first we must ask that which the

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<sup>17</sup> Initially, the Government had intended to present a choice of just two options – two variations on the theme of home rule – but when the people came out onto the streets of Halifax to ask for a third option, ‘confederation with Canada’, the latter was duly added. The vote was then conducted under the two-round system. In the first round, this ‘confederation’ and ‘responsible government’ came out as the two leading contenders with 45% and 41% respectively; then, in the second round, ‘confederation’ won by 52% to 48%. The turnout on both counts was 88% (Emerson 2002, pp 119-120).

<sup>18</sup> When referring to electoral systems, AV is called the single transferable vote, STV, or, in the US, IRV, instant run-off voting.

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Scottish Government does not: is the majority vote an accurate measure of the collective will?

If a referendum were to be used to resolve the question of electoral reform for Westminster, for example – as it nearly was in the wake of the Jenkins Commission – it could be a multi-option ballot. Such was the case in a five-option referendum in New Zealand.<sup>19</sup> Whenever opportunities for a more sophisticated poll have existed in these islands, however, as they did with the 1997 referendum, they have invariably been spurned.

Such was indeed the case when the Irish Government published its green paper on abortion. Despite suggesting that there were seven options,<sup>20</sup> it nevertheless presented the electorate with a binary referendum, in 2002. The government's proposal was defeated, albeit by less than one per cent, by the combined opposition of those who thought it was too liberal and those who thought it was not liberal enough.<sup>21</sup>

The only UK-wide referendum was held in 1975 on entry to what is now the EU, and maybe that question was indeed of only two-options. This 'blunt ... weapon'<sup>22</sup> has also been used in Northern Ireland where, not in practice but most definitely in theory, many options were 'on the table'. The first was the

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<sup>19</sup> In 1992/3, New Zealand used a variation of the two-round system. Usually, if no one option gains 50% in the first round, the two leading options go into the second round, a straight majority vote run off. In New Zealand's referendum, however, the winner of the first round, MMP, then competed against the status quo, FPP, even though FPP had come third and actually PR-STV was the runner-up.

*The terms of reference for the Jenkins Commission stipulated that it should recommend just one alternative to the status quo, FPP. The report referred to the instance of New Zealand – indeed, as part of the commission's enquiry, some of the commissioners actually went there – but the final report made no mention of the multi-option vote used. <http://www.archive.official-documents.co.uk/document/cm40/4090/contents.htm>*

<sup>20</sup> *Green Paper on Abortion, The Stationery Office, Dublin, undated, pp 107-8.*

<sup>21</sup> *'The people have spoken,' said the Taoiseach, Bertie Ahern. 'So what did they say?' asked this author in a letter to the Irish Times, 8.3.2002. Interestingly enough, a former Taoiseach, John Bruton, used the same phrase after the 1995 divorce referendum, another result which was decided by a margin of less than one per cent.*

<sup>22</sup> *To use Professor Vernon Bogdanor's phrase (Bogdanor 1981, p 92).*

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1972 Border Poll which, in a province considered at the time to be 60% Unionist and 40% Nationalist,<sup>23</sup> resulted in a 59% turnout. The minority, under the Social Democratic and Labour Party, SDLP, boycotted the poll.<sup>24</sup> Of those who voted, 97% were in favour.

Later on, by which time the proportion of Nationalists had grown somewhat, the SDLP changed its mind and then supported the concept of a majority vote referendum, as do most of the other NI political parties, firstly to endorse the Belfast Agreement,<sup>25</sup> and secondly, to allow for the possibility of a change to the constitutional status of Northern Ireland at some future date.<sup>26</sup> It is referred to as the principle of *consent*; yet the instrument by which this principle is to be enacted, the two-option majority vote, is a measure of the very opposite – so many ‘for’ and so many ‘against’ – the degree of *dissent*. In all, the prospect of a referendum, the designations used in consociational votes in the Assembly (footnote 3) and the d’Hondt process by which the four main parties ‘cherry pick’ their ministers, lead some to conclude that the Belfast Agreement ‘remains grounded in the very structures it aspires to transcend’ (Taylor 2009, p. 320).

### **THE ROLE OF THE SNP**

If people vote tactically, as they are perfectly entitled to do and as many will do if confronted by a restricted choice in a simplistic voting procedure, then, in all probability, the outcome will not be a true representation of ‘the will of the

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<sup>23</sup> *For many years, the UK Government considered all citizens to be either one or the other, and little or no account was taken of those a) who were partners in or born of a mixed marriage, b) who practiced either a non-Christian religion or none at all, or c) who belonged to other minority communities, like the Chinese.*

<sup>24</sup> *Minorities often boycott such ballots, as happened on many occasions in the 1990s in the Balkans, for example.*

<sup>25</sup> *In 1998, both the Democratic Unionist Party, DUP, and Republican Sinn Féin, voted against. Having lost this ballot, Mr. Paisley then claimed that he represented ‘the majority of the majority’, but that, of course, is an argument, if not for re-partition and/or minority rule, for the power of a minority veto.*

<sup>26</sup> *According to the Agreement, a referendum on the question – to stay in the United Kingdom or to join a united Ireland – may be held every seven years or so; like the three referendums held in Quebec, the process could be called a ‘never-end-um’.*

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people'. As a minimum, therefore, on those occasions where the debate is indeed multi-optional, the ballot itself should also be multi-optional. The Government repeatedly acknowledges that 'there is support within Scotland for a range of positions on increased responsibilities for the Scottish Parliament' (Scottish Government 2010, p 11), that 'there is currently no consensus' (*ibid.*), and that 'those who support further devolution do not have a consensus position' (*ibid.*, para 1.8). Furthermore, it accepts that there is 'support for a range of proposals' (*ibid.*, para 1.10), 'for ... four possible scenarios for Scotland's future: the status quo, further devolution based on the recommendations of the Commission on Scottish Devolution (the 'Calman' Commission), full devolution and independence' (*ibid.*, para 1.3). If there are indeed four options on the agenda – let us call them options **S** the status quo, **C** Calman, **D** devolution max, and **I** powers on voting on independence – any resort to only two majority votes, as is now proposed – either one pair of questions, **S v C?** plus **I** yes-or-no?, or another pair, **S v D?** plus **I** yes-or-no? – is bound to leave either the **C** or the **D** supporters forced to vote tactically. If, furthermore, there exists a Condorcet cycle (footnote 6) in society on the options **S**, **C** and **D** – and this we can not know prior to the vote, and maybe not even then if the ballot does consist of only majority votes – the outcome could be wrong. Why, then, does 'the Scottish Government [invite] views on two possible options for the first question, [only] one of which would be included on the referendum ballot paper' (*ibid.*, p 5)? Is it hoping that the **S v D** question will be more popular than **S v C**, and that, as the polls suggest, **D** will then win? Is it afraid that, in a multi-option poll, option **C** could get the second preferences of both the **S** and the **D** supporters and could thus be more popular than **D**? Mindful of these polls, is it trying to adjust the choice of voting procedure in order to maximize the chances of the outcome being to its own liking? It would seem so.

Now, admittedly, the SNP has first to get the bill accepted by Holyrood. Not for this reason alone, 'the Scottish Government's aim is that the campaign should be seen to be fair and should operate on a "level playing field" for all participants in the referendum. In support of this principle, the Scottish Government recognises that there should be no undue Government influence on the campaign' (*ibid.*, para 3.25). Would it not be better, therefore, if the questions to be asked, the format of those questions, and the choice of voting and counting procedures by which the views of the Scottish electorate on those questions were to be collated, were decided by some independent authority, such as the Electoral Commission?

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Like members of any other party, the SNP are doubtless impatient to see their goals achieved. Is this the reason why they no longer support multi-option voting? Have they decided that the people generally or the politicians of other political parties are so wedded to majority voting that any policy which advocates multi-option preference voting would fail to get over the first hurdle in Holyrood? Why is it, given the number of decision-making methods which are available, that the Government should stick to the most ancient of all, the two-option majority vote? Is the SNP just like so many other political parties that, once in power, principles are overtaken by pragmatics?

**Table 1**  
**Some voting methods used in decision-making**

		CLOSED QUESTIONS		SEMI-OPEN QUESTIONS	OPEN QUESTIONS	
↑	All prefs					BC/MBC Condorcet (Copeland)
	C					
O	Some prefs				Approval voting	
	U			<i>2-round voting**</i>	<i>Serial vote*</i> Sweden	AV/STV
N T	1 <sup>st</sup> prefs	Weighted majority voting SA, UN	Consociational majority voting Belgium, NI	Norway; referendums in New Zealand		
		Simple majority voting UK	Twin majority vote Referendums in Switzerland	Plurality vote Referendums in Puerto Rico		
	* = a series of closed questions.	1 of 2 options		1 of some options	1 or some of all options	1 or some or all of all options
	** = one open and one closed question.	1 <sup>st</sup> preference only BINARY			preferential	MULTI-OPTIONAL

## **OTHER VOTING METHODS**

As shown in Table 1, there are many ways in which votes a) can be cast (the  $x$ -axis); and b) can then be counted (the  $y$ -axis). If there is a plurality of options, voters may be given the opportunity to express only one preference (plurality voting); or to cast just one preference but on more than one ballot (two-round voting and serial voting); or to express a number of preferences (AV, approval voting,<sup>27</sup> Borda or Condorcet). Furthermore, if people are allowed to cast preferences, then, in theory at least, a more accurate outcome will pertain if all preferences cast are included in the count.<sup>28</sup>

Let us now consider what happens under each method.

In a plurality vote, the voter casts only one preference, so only the first preferences are counted. As already noted, the voter is thus often incentivised to vote tactically, and the outcome may be inaccurate.

A two-round vote is a plurality vote followed, if need be, by a majority vote; in both, the voter casts only one 'x'. In contrast, in AV, a voter is asked to vote on the various options in his/her order of preference, 1, 2, 3... . Both a two-round vote and AV start with a plurality vote, however, so again both may be inaccurate.

With approval voting, the voter with a clear favourite option may be tempted to cast only a single preference, in which case the ballot mutates into a plurality vote. This is especially true if and when he/she thinks a rival option, his/her second preference, is very popular.

The same can happen in an  $n$ -option BC, if, that is, regardless of how many preferences the voter has cast, points are awarded to the voter's {first, second ... penultimate, ultimate} preferences as per the formula  $\{n, n-1 \dots\}$ . According to the words of Jean Charles de Borda, however, the voter who casts  $m$  preferences, where  $1 < m < n$ , exercises  $\{m, m-1 \dots 2, 1\}$  points (Saari

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<sup>27</sup> *In approval voting, the voter indicates those options of which he/she 'approves', without necessarily indicating any preferences between these 'approvals'.*

<sup>28</sup> *Such is the case in a Borda or Condorcet count, but this does not usually happen in AV/STV.*

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2008, p 197). There is, however, some doubt about this: Kenneth Arrow, for example, suggests de Borda wanted everyone always to submit a full ballot.<sup>29</sup>

The modified BC, MBC, is unambiguous: it always uses the above  $\{m, m-1 \dots 2, 1\}$  formula. This means that the voter's  $x^{\text{th}}$  preference, if cast, always gets one more point than his/her  $(x+1)^{\text{th}}$  preference, whether or not the latter has been cast.<sup>30</sup>

A Condorcet count also asks the voter to cast his/her preferences. In the count, options are considered in pairs, and the option which wins the most pairings, if there is such an option, is the winner. If, however, there is a cycle, as in footnote 6, there may not be a Condorcet winner.

Now nearly all of the methods shown in Table 1, either literally or by implication, restrict the number of options the voter may cast. Therefore, these voting procedures are not as free as they should be. AV, the MBC and Condorcet, however, allow if not indeed encourage the voter to cast all of his/her preferences, while the MBC and Condorcet take all preferences cast into account. Not for this reason alone, 'there are two defensible procedures for aggregating votes: the Condorcet rule and the Borda rule' (McLean and Shepherd 2004, W11.)

Of the two, Condorcet is still majoritarian. In an MBC, however, the winning outcome is the option with the highest points total which, if everyone has cast a full ballot, can also be described as the highest average preference; and an average, of course, involves everybody, not just a majority. Working on this logic, this paper suggests the most accurate method would be the BC/MBC; after all, 'The BC is a unique method ... to minimise the likelihood that a small group can successfully manipulate the outcome' (Saari 1995, p 14).

## **A VOTERS' PROFILE**

By way of an example, consider the following profile in which an electorate of only nine persons (as in footnote 6) casts a different set of preferences for options **A**, **B** and **C**, as shown in Table 2.

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<sup>29</sup> *M. de Borda's 'major point... is that the entire ordering... is needed for social decision.'* Arrow, (1963, p 94).

<sup>30</sup> *The MBC is therefore mathematically neutral* (Emerson 2007, pp 16 et seq.).

**Table 2**  
**A Voters' Profile**

Preferences:	Number of voters		
	4	3	2
First preference	<i>A</i>	<i>C</i>	<i>B</i>
Second preference	<i>B</i>	<i>B</i>	<i>C</i>
Third preference	<i>C</i>	<i>A</i>	<i>A</i>

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In a plurality vote, consideration is given to the first preference only, in which case *A* is the winner with a score of 4 (even though 5 people think it is the worst option).

With a two-round vote, the two leading contenders from the first round plurality vote – *A* and *C* – go into the second round, a straight majority vote; and if everyone keeps to their preferences as shown above, *C* will win the second round by 5 to 4.

As noted above, an AV count also starts with a plurality vote, so the score at the end of the first stage is again *A*-4, *C*-3 and *B*-2. *B* is then eliminated and the votes of the two people who cast their first preferences for *B* are transferred to their second preference, which is *C* for both of them. So at the end of the second stage, the scores are *A*-4, *C*-5, so *C* wins (and all seven of the second preferences cast for option *B* are not even counted).

Approval voting is a bit difficult to gauge, for it depends upon how many ‘preferences’ are deemed to be ‘approvals’. If it is assumed that both the first and second preferences are approvals, then the outcome is *B*-9, *C*-5, *A*-4.

Serial voting is a series of majority votes. The options are first arranged, as it were, in order. In a three-option ballot as was envisaged for Scotland in 1997, the order would have been: ‘status quo’, ‘devolution’ and ‘independence’. The first majority vote would have been taken between the two ‘extreme’ options, and the winner of that would have competed in a second majority vote with ‘devolution’. In the above example, with the order *A*-*B*-*C*, then *C* would have

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beaten *A* in the first round, and *B* beaten *C* in the second, so the winner would have been *B*.

In a BC/MBC, in a full ballot, a first preference gets three points, a second two, and a third one. So the scores are *B*-20, *A*-17 and *C*-17, and *B* is again the winner.

A Condorcet count compares the options in all possible pairings: *A* and *B*, *A* and *C*, and *B* and *C*. *B*:*A* = 5:4; *C*:*A* = 5:4; and *B*:*C* = 6:3. So *B* wins 2 pairings, *C* wins 1, and *A* zero.

An analysis of the above voters' profile therefore gives the following outcomes:

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**Table 3**  
**The Outcomes**

Voting method	Social ranking		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
Plurality vote	<i>A</i> - 4	<i>C</i> - 3	<i>B</i> - 2
Two-round voting	<i>C</i> - 5	<i>A</i> - 4	
AV	<i>C</i> - 5	<i>A</i> - 4	<i>B</i> - 2
Approval voting (on first preferences only)	<i>A</i> - 4	<i>C</i> - 3	<i>B</i> - 2
Approval voting (on first two preferences)	<i>B</i> - 9	<i>C</i> - 5	<i>A</i> - 4
Serial voting, with options set in the sequence, <i>A-B-C</i>	<i>B</i> - 6	<i>C</i> - 3	
BC / MBC	<i>B</i> - 20	<i>A</i> - 17 and <i>C</i> - 17	
Condorcet (Copeland)	<i>B</i> - 2	<i>C</i> - 1	<i>A</i> - 0

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In other words, the winning option, that which best represents the collective will of the voters, is either *A*, or *B*, or *C*, depending on which counting procedure is used. In some voters' profiles, therefore, the outcome of a vote depends upon the voting procedure. This is why, as suggested above, the

choice of voting procedure should be taken by an independent authority. In this particular profile, option **B** is the first or second preference of everybody, so it is probably fair to say that **B** best represents the collective will of the nine-person electorate. Not only more complex theoretical profiles, but considerable experience in using these methods, both in these islands<sup>31</sup> and abroad, also tend to show that the most accurate measures are indeed an MBC and/or Condorcet.<sup>32</sup>

## CONCLUSION

The choice of voting procedure is crucial. It is therefore disappointing to see that, while the Scottish Government talks of a multi-option referendum, it does not discuss voting procedures in any detail. It supports PR-STV for all Scottish elections (Scottish Government 2009, p viii and para 9.25). On the question of decision-making, however, it is unclear. Sometimes it uses rather ambiguous phrases: ‘It is now time for the voice of the people to be heard – in the referendum on Scotland’s future we intend to hold in November 2010’ (*ibid.*, p 2), and ‘a referendum on the options for Scotland’s future would give the people an opportunity to have their say’ (*ibid.*, para 1.1) on the ‘four broad options,’ (*ibid.*, para 2.6). It admits that ‘The Scottish Government favours a referendum which presents a clear choice [sic] between achieving that aspiration and the current devolution settlement’ (*ibid.*, para 10.9) but ‘despite [its] preference for a single choice’ (para 10.14), it initially accepted ‘that a multi-option referendum might be more likely to command the support of other parties in the Scottish Parliament.’ The absence of any serious discussion on this theme by Scottish Government (2010) rather suggests the Government now considers this to be less likely. It goes on to say, ‘[It] can also see some democratic advantage in posing more than one question’ (Scottish Government 2009, para 10.15), but it does not elaborate, doubtless because

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<sup>31</sup> A ‘preferendum’ or MBC vote was held in the City Council Chambers in Edinburgh, shortly before the 1997 referendum. About 100 persons and many organisations were present – Common Cause, Constitutional Convention, Democracy for Scotland, Scotland United and the Campaign for a Scottish Assembly – and all spoke of the need for consensus. When it came to the MBC vote, however, one person refused to participate: he whose very political existence depended upon first-preference only majority/plurality voting, George Galloway MP.

<sup>32</sup> Emerson 2007, p 17.

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‘there is a problem in deciding what the other option should be’ (*ibid.*, para 10.16), hence version 1 and version 2, (Scottish Government, 2010, pp 12-3), **S v C** or **S v D**.

It would seem that the Government is now even more convinced that the referendum should be based on two majority vote questions, and maybe this is because the Government ‘will be seeking the agreement of the Scottish Parliament that the referendum should be held as soon as possible’ (*ibid.*, p 5.). In order to get the other parties to accept that there can be a referendum at all, the SNP obviously feels, firstly, that it has to separate the question of independence from the other options; and secondly, that ‘the referendum will be advisory’ (*ibid.*, p 6). It is nevertheless a matter of regret that the Government considers only majority voting and AV (*ibid.*, paras 1.24 and 1.23), and avoids a debate on some of the more inclusive methods. A more analytical approach might not only help Scotland to choose a method by which the Scottish people could come to a consensus; it might also be of considerable benefit to a world still bedevilled by majoritarian conflicts.

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