Problems of "Democratic Process"
Bill Edwards
7/19/2023

I doubt that anybody really believes in unlimited democracy: that a simple majority of all the people should be able to do whatever they like in governing. Certainly the "Founding Fathers," the writers of the U.S. Constitution, did not. They incorporated many exceptions and qualifications to majority rule and many protections of minority rights into the Constitution and Bill of Rights. It was left to the states to determine who could vote, and, at the state level, the right to vote was severely restricted, usually to property owners, and of course to free, white males. Most of these restrictions have long since been deleted. Perhaps some would like to restore them, though few say so.

Unfortunately, the way of political activists, left and right, is to talk like passionate populists when they think a majority may agree with them, but when it does not, to suddenly discover minority rights and that, "This is a republic, not a democracy!" Well, I might agree, if they would specify what they mean by a "republic," beyond "government by people like me and people I like." Most of us can imagine classes of people we would be willing to be governed by and others we would not, and most of us can specify groups of people whose rights we think are not sufficiently protected, and other groups with far more privileges than we think they deserve. But the problem is that we must live with people other than those we admire and favor, and with ancestry, religion, choices, and culture other than our own.

Should not our ideal be majority rule, by all those who meet reasonable, unbiased, known qualifications, with all peaceful minorities protected in their basic rights? But to accomplish this, we would need to reach some consensus on qualifications to participate, and on basic rights, and today such a consensus is far away, perhaps farther away than most of us can remember.

Furthermore, the very meaning of "majority rule" is much less clear than it seems, especially when a choice must be made between more than two candidates or policies. Political philosophers have been writing about this problem for a surprisingly long time, from classical thinkers like Plato, to "Enlightenment" figures like Thomas Jefferson and Alexander Hamilton, to Victorians like mathematician Charles Dodgson (Lewis Carroll). (Szpiro 2010)

If there are more than two candidates and if we may suppose that each voter can order them by preference, then the voting system must choose the best (most pleasing to a majority of citizens) choice based on the preferences of all voters. But what does this mean and how should it be accomplished? The common method in the US today is to

vote, if no choice scores 50% plus one, eliminate the lowest and rerun until one choice does so. One obvious problem is that this is time consuming and controversial in reaching a resolution.

One problem to be avoided is "cycles":

Example 1 (3 voters) (">" means "preferred to"):

(v. #1) Biden > Warren > Sanders; (v. #2) Warren > Sanders > Biden; (v. #3) Sanders > Biden > Warren.

1,2: Warren > Sanders; 2,3: Sanders > Biden; 1,3: Biden > Warren.

Thus any ranking of the three candidates must violate some preference of two of the three voters.

If the system seeks a majority, using runoff elections, another problem is "cheating":

Example 2 (17 voters):

(8 voters) Donald > Micky > Goofy;
(5 v.) Micky > Donald > Goofy;
(4 v.) Goofy > Micky > Donald.

"Honest" (Everyone votes as they believe.) Election:
(round 1) Donald – 8, Micky – 5, ~~Goofy – 4~~.
(r. 2) Micky – 9, Donald – 8. Micky wins.

2 of Donald's supporters "cheat" by voting for Goofy to eliminate Micky:
(r. 1) Donald – 6; Goofy – 6; ~~Micky – 5~~.
(r. 2) Donald – 13, Goofy 4. Donald wins, though a majority preferred Micky.

(We assume here that some voters knew that they could change the result by an insincere vote.)

But there is a pessimistic, mathematically provable, fact: If we make seemingly modest assumptions as to what we expect from a voting system, no system can satisfy them!

Kenneth Arrow's Theorem: If *we* assume that:
- voters are *responsive* and *consistent,*
- system is *unrestricted*, *monotonic*, *independent of irrelevancy*, *nonimpositional*, and *nondictatorial,*

then there is *no solution* to majority selection problem! (Szpiro 2010)

Thus the problem is to see how to compromise our expectations and find the better solution, given that an ideal solution is impossible. Could we make an informal standard, that we seek a result that satisfies the expressed preferences of as many as possible, ideally a majority? Poundstone advocates "instant range voting" where each voter ranks candidates, and the least popular candidate is eliminated at each stage until one remains. (Poundstone, 2008)

It is generally accepted in "progressive" political circles to idealize nearly universal participation in elections, even to imposing fines for *not* voting. However, we might at least weigh the possiblity of significant qualifications to vote. What would be the consequences of requirement of (a) a test of basic knowledge or (b) some form of public service, in order to vote? The distiguished science fiction writer, Robert A. Heinlein, carefully integrated such a proposal into one of his best known novels, *Starship Troopers*. His concept, explained with (fictional) historical references, is that the right to vote and hold public office is restricted the those who have satisfactorily completed a term of voluntary public service, which may be, but is not necessarily, military service, though it is expected to include risk, the belief being that only those willing to risk to protect society are fit to govern it. Note that this was written not long after World War II, but also after the Korean War and just before Vietnam. (Heinlein, 1959)

References: (Available on Amazon or from author.)

Padover, Saul K. and Jacob W. Landynski. *The Living US Constitution*. New York: Meridian, 1995. (Standard reference on the Constitution.)

Szpiro, George G. *Numbers Rule*. Princeton: Princeton University Press, 2010. (Thorough, technical discussion.)

Ottewell, Guy. *Approval Voting*. Durham, NC: Universal Workshop (Available from author.), 2019. (Brief, opinionated; examples not always easy to follow.)

Poundstone, William. *Gaming the Vote: Why Elections Aren't Fair (and What We Can Do About It)*. Hill and Wang, 2008. (Verbose, but funny, and Louisiana politics furnishes major examples through the book. This book is very accessible, with different systems and major issues collected at the end. Suitable for browsing.)

Wehle, Kim. *What You Need to Know About Voting and Why.* New York: Harper, 2020. (Current practical guide, including state by state-by-state information for 2020.)

Heinlein, Robert A. *Starship Troopers*. Putnam, 1959.