

Randomness in Public Administration

Conall Boyle

(Department of Mathematics and Statistics, Birmingham Polytechnic: 1980: Occasional Paper)

To suggest that an activity is 'random' often implies badness. One hears of 'random terror' in which any innocent could be maimed or killed. Some processes such as the Law, or the allocation of Council Houses are unkindly described as *haphazard*. The implied alternative to such random methods are processes which are *consistent* or follow some rational scheme. Haphazard or random procedures can at best, it is felt, be dismissed as quaint survivors of a pre-rational age.

Randomness is to be found in many political processes.

1 . Selection of Rulers and Authority Figures.

- 1.1 San Marino, a small democratic republic in Central Italy, is governed by two Capitani Regenti . They rule for one year. The ruling council, which is elected, selects a jury of 12, who propose a short list of 6. The names of these 6 candidates are written on slips of paper, and placed in an urn. On the following Sunday during High Mass at the cathedral, a child is taken from the congregation, and draws two names. Thus are chosen the rulers of the world's longest surviving republic.
- 1.2 Strict seniority is used in many military and quasi military organisations. Among airline pilots, each company has a quota of captains. Promotion to this grade, which involves taking charge of an airplane, is random - no special criteria, other than the general, but strict standards which apply to all pilots. Chairmanship of Council Committees is often decided on seniority rules.
- 1.3 Primogeniture (succession of the first born) is the method used in selecting monarchs .

Choosing the rulers or authority figures in this random fashion can be criticised on two main grounds

- (i) It is undemocratic - monarchy being given as the extreme example.
- (ii) Random selection does not get the best person available into the job.

It is important to distinguish appearance from reality. The Soviet Union has a Constitution which is flawlessly democratic -- all the right safeguards are there; yet no-one here suggests that the reality of life in the USSR is anything other than oppressed. Monarchy appears to be a manifestation of the worst sort of anti-democratic tendency. But what has been reality? No other important Office of State has been held by more women, or more young people, or by lunatics, or by members of religious minorities, or by persons dubious marital status (1688 and 1936 excepted). The laws of genetics operating via the Normal Distribution, will ensure a much more 'representative', that is to say ordinary person, reigns over this Kingdom.

Random selection of leaders may produce more representative figures; but surely it cannot produce the best man or woman for the job? To select the best leaders in public bodies such as in Local Authority Housing or Education functions, two main methods are used:- election and selection by a panel. The best councillor is elected by the voters from a list of candidates. The best headmaster is chosen following an interview of the short-listed applicants. In both cases it is to be supposed that the electorate or the panel members know enough about the candidates, know enough about the job and have a set of criteria which indicate who will perform well in the proposed job.

Such is not the case. I know of little evidence for criteria in successfully choosing the 'best' person for any job. (The only case I know of is the criteria for success as a computer programmer - the elaborate testing ritual to which they are subjected is useless. Only the possession of an 'O' level in English is any guide). Even if it was possible to select the best person, which of course it is not, headmasters and councillors will serve a long or indefinite term. How on earth are the electorate or the interview panel supposed to foretell a candidate's future performance, often in a role which he or she has never before undertaken?

In effect then, election or interview selection are partly random processes (only partly because they are biased towards middle aged white males). The delusion that they are methods which somehow pick out the best is damaging in two main ways. The chosen candidate is given the feeling that he is the best, superior to all others. Any beneficial halo-effect is soon dispelled by reality. More damaging though, is the effect on the losers. Branded as 'less-than-the-best', they must try to reconstruct their bruised self-esteem. Indeed the very possibility of such a rejection may be sufficient to deter many of the 'best' candidates.

Of course it could be argued that this process is no more than a rite-de-passage, a kind of initiation ceremony. If this is the case, (and why not), may I make a plea for a more aesthetically pleasing process, such as exists among South-Seas islanders? Would an overtly random selection procedure produce worse leaders? I think not. An initial screening process, which fined down the candidates to a short list of all those with the minimum qualifications could be used. The spin of a roulette wheel could decide the winner. Not only would this process be quicker (and cheaper); it would avoid the damaging effects of failure -no-one feels that a loss on the roulette wheel brands that person a failure. Since no-one need fear rejection, more and more of the better people would apply.

As a long-stop, all posts thus obtained could be tenable for a short fixed *non-renewable* term. This is particularly relevant in public sector appointments where the standing of the position derives not from the efforts of the post-holder, but by the power *conferred* by the Local Authority or Central Government.

2. Allocation of Resources.

Allocation of resources such as housing, medical services or education is usually based either on 'merit' or 'need.' To obtain a grant-aided University place you must show evidence of merit;- by having the appropriate A levels. A Council house allocation is based on a points scheme. There have been a few attempts at random allocation e.g. the G.L.C.'s 'stampede' for derelict properties. But generally allocation is by objective, *fair*, knowable criteria. What could be more democratic, consistent and non-random?

And yet such processes do contain random elements. The 11+ grammar school selection test was subjected to close scrutiny. It has been shown to have an error rate of 20%. One child in five was allocated to the wrong school; this mis-allocation was random. Undoubtedly the really bright and dim children finished up in the appropriate school, it was the group in the middle who were subject to this nerve-wracking random process.

Would it not be more honest to admit that all allocation procedures contain at least some random element? The alternative to rational points-based allocation, might be a pure random process; or maybe a weighted random process might be deemed more suitable. The losers especially the close runners-up in such a random allocation process would feel less bitter at their failure to gain a house or a selective school place. Another benefit would be the removal of the opportunity for corruption or favouritism. Under the current points system, an applicant who lacks 1 point to gain a

council house has a strong incentive to bribe or to cheat, in order to gain the flow of benefits from the status of council tenants. If such a small enhancement of a points count merely resulted in a correspondingly small improvement in the applicant's chances, there would be little incentive to bend the system. What in effect is being proposed is nothing less than a shift in power from the bureaucrats to the population at large.

3. Imposition of Duties, Punishments and Regulations.

Administrations, both local and national are concerned with exacting duties (both financial and in kind as 'National Service'). They also ensure compliance with the Law and other regulations such as building codes. To make sure such rules are obeyed they must impose punishments of a financial or physical nature. Many aspects of these activities involve a deliberate randomisation process.

3.1 Decimation: When a Roman army failed to perform well one-in-ten of its members were chosen randomly and executed.

3.2 Juries: Recent debate has centered around the contrast between a representative jury (which contains 50% women, 5% blacks, etc.), and a purely random one. The legal principle of 'twelve good men and true' has become somewhat distorted by screening processes which exclude criminals yet include members of the security forces. The method of taking jurors from the same street has also been criticised.

3.3 Draft selection: Many countries adopt a random selection process when calling-up 18 year olds for national service.

To this list of examples of overt randomisation should be added a very large category, which is sometimes known as 'lex imperfecta.' Laws are passed with the intention, so we are led to believe, that they will be implemented. When questioned, the lawmakers will assure you that, yes, every single speeding motorist, every property owner building a verandah without planning permission should be brought to book, tried and punished. Never mind that most speeders go unpunished, that one in three parking tickets is never paid - the law is the law.

An alternative hypothesis is that there is a tacit assumption, never admitted to, that some laws are meant for occasional, random implementation. The purpose of parking laws and race relations laws is not to stop all bad parking or racial abuse. Such laws

are intended to hold down the level of these anti-social activities. Even laws on murder, are, it is clear from recent baby mercy killing cases, not intended for full, rigorous implementation.

4. Decision Making: Does it pay to be Rational?

To make the right decision is easy - just collect all the relevant facts, give each an appropriate weighting and choose the best course of action. Apart from begging several questions about 'facts' and 'weighting', such a scheme is deficient in a more fundamental way. If your decision is taken against an 'opponent' (who could be a competitor, client or spouse), then complete rationality means complete predictability. There is a science of Game Theory which suggests that in most cases it is best to adopt a mixed strategy. The actual strategy to adopt is chosen by some randomisation technique - like throwing dice. In personal relationships too, it is observable that consistency does not pay off. It is the erratic person - overwhelmingly friendly one day, extremely tetchy the next, who commands the most respect and attention. The local authority administrator who was seen to make decisions on the throw of a dice would soon be in trouble. Such 'irrational' behaviour is not acceptable in our society. You must always have a 'reason' for doing things. It is of course possible to maintain the pretence of rationality while secretly adopting a random decision making process.

Conclusion: It is the great fallacy of our age that given enough research and information and computer power it is possible to work out a mathematical formula to explain everything. Human behaviour as the Social Scientists have found will not fit into this logical model. In medicine too, such enthusiasm for rationality is seen to be mistaken. In so-called 'primitive' societies, there is no hesitation in calling on the deity for a decision, which is really allowing random change to decide an outcome. In extreme cases this can lead to an attitude of fatalism 'Insh 'Allah', where the individual feels no action on his part can change the situation.

To encompass the wisdom of the ancients and the scientific achievements of the modern world, would it not be more realistic to frankly admit that in some cases not only do we not know the answer, but in fact the answer is unknowable.

Let what is known decide where possible; where the answer is in doubt let the dice decide.

References.

The following contain the stimulus/source for the ideas mentioned above.

Aubert, Vilhelm. 'Chance in Social Affairs'

Illich, Ivan. 'Limits to Medicine' 1976

Reisman, W.M. 'Folded Lies - Bribery Crusades and Reforms' 1979

Rhinhart, Luke. 'The Dice Man'

Raiffa, H. Kamin, L.J. 'Decision Analysis' 1970

Eysenck, H. and Rose, S. 'The Science and Politics of I.Q.' in 'Race Intelligence and Education', 'New Scientist' 81, 849-852