Snakes and Ladders: State Interventions and the Place of Liberty in Public Health Policy

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The children’s game ‘snakes & Ladders’ is a race across a board of one hundred squares as each player takes turns to shake the dice. Progress is, generally, determined by cumulative high scores. However, if you land on a square with a ladder on it, you move further up the board. If you land on a snake, you move down. Rather like life itself, snakes and ladders is a game of chance, with unearned benefits and hazards impacting upon your success. However, not all ladders are, apparently, good things. In this paper I outline and explore some problems in the way that the Nuffield Council of Bioethics’ report Public Health: Ethical Issues presents its ‘Intervention Ladder’. They see the metaphor of a ladder both as capturing key normative priorities and as making a real and important contribution to ethical policymaking in public health. In this paper I argue that the intervention ladder is not a useful model for thinking about policy decisions, that it is likely to produce poor decisions, and that it is incompatible with the report’s stated approach to relevant public health policy values.

1. What is the Intervention Ladder?

The Nuffield Council of Bioethics (NCB) report presents a modified form of liberalism in which individual liberty to decide and act is given a central role, but it is not the only important thing, nor is it always the most important thing.[1] Appeal is made to a particular interpretation of John Stuart Mill’s political views as a justification for the important role for liberty, but it is made clear that other considerations will also be significant within their ‘framework’, such as distributive issues, effectiveness, a precautionary approach and something that they call proportionality. It is unclear exactly how these different elements are supposed to be combined, but presumably they are to be weighted differently in response to different policy issues and cases. Ultimately, the NCB appeal to the metaphor of stewardship to point to the obligations of government to act to create the conditions for individuals to make their free choices and provide basic assistance to those unable to look after their
I think that such a position can be characterised as a pluralistic form of liberalism, in the sense that it suggests that more than one thing is valuable. For the purposes of the argument in this paper, I will assume such an approach is correct. However, as part of their framework, the NCB propose the intervention ladder ‘[t]o assist in thinking about the acceptability and justification of different policy initiatives to improve public health’ (p.41). So what is ‘The Intervention Ladder’? It is presented in the following way:

**Eliminate Choice.** Regulate in such a way as to entirely eliminate choice, for example through compulsory isolation of patients with infectious diseases.

**Restrict choice.** Regulate in such a way as to restrict the options available to people with the aim of protecting them, for example removing unhealthy ingredients from foods, or unhealthy foods from shops or restaurants.

**Guide choice through disincentives.** Fiscal and other disincentives can be put in place to influence people not to pursue certain activities, for example through taxes on cigarettes, or by discouraging the use of cars in inner cities through charging schemes or limitations on parking spaces.

**Guide choices through incentives.** Regulations can be offered that guide choices by fiscal and other incentives, for example offering tax-breaks for the purchase of bicycles that are used as a means of travelling to work.

**Guide choices through changing the default policy.** For example, in a restaurant, instead of providing chips as a standard side dish (with healthier options available), menus could be changed to provide a more healthy option as standard (with chips as an option available).

**Enable choice.** Enable individuals to change their behaviours, for example by offering participation in an NHS ‘stop smoking’ programme, building cycle lanes, or providing free fruit in schools.

**Provide information.** Inform and educate the public, for example as part of campaigns to encourage people to walk or eat five portions of fruit and vegetables per day.

**Do nothing or simply monitor the current situation.**

The Intervention Ladder (1, p.42)

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1 The stewardship metaphor has also been subject to criticism.[2-4]

2 I find a pluralistic approach to values attractive, whether justified within the broad bands of some form of liberalism or through other means. Justification of such an approach I leave to another occasion.
The NCB clearly intend the intervention ladder to be used in policy making as a practical means to justify policy outcomes. It is also apparent that there is a clear set of normative commitments that are made explicit in the figure, roughly, the idea that interventions should be restrictive of individual choices to the least possible degree. In the next sections I outline three issues for the supporter of the intervention ladder. The first outlines a dilemma, forced by a lack of coherence between the intervention ladder and the apparent pluralism as outlined and defended by the NCB. The second is that the detail of the metaphor of an intervention ladder makes no sense, particularly in relation to the placing of the ‘rungs’. The third problem is that the most natural reading of the metaphor suggests a commitment to the idea of the least restrictive alternative, and this is problematic both in its own terms, but also as part of a pluralistic liberalism that the NCB apparently wish to defend.

2. The Intervention Ladder as Metaphor: Coherence and Use

In this section I suggest that the metaphor of a ladder is both unclear and unhelpful and, even worse, is strictly incoherent when viewed in the context of the NCB’s apparent pluralistic liberalism.

How should we understand the metaphor of the ladder? The key relevant idea is surely a spatial one. A ladder is, for all intents and purposes in this context, a two-dimensional object. Generally speaking, when using ladders, we start at the bottom and climb up. This is true if we are painting a house or playing snakes and ladders. However, although in snakes and ladders we move straight to the top of the ladder, we are not encouraged to do so on the intervention ladder. Indeed, precisely the opposite is suggested in a natural normative reading of the idea of ascending rungs. Once we have the two dimensions of the ladder in mind, we can ask what it is that allows us to see where we ought to be on the ladder, and the most plausible reading of the metaphor is that we should be as low as possible because that gives the greatest liberty to individuals to act for themselves. For example, the NCB suggest this when they say:

Quote 1: ‘The first and least-intrusive step on the ladder is to do nothing, or at most monitor the situation. The most intrusive is to legislate in such a way as to restrict freedoms significantly, either for some groups of the population or the population as a whole, in order to achieve gains in population health. The higher the rung on the ladder at which the policy maker intervenes, the stronger the justification has to be’ (pp.41-2 – my italics)

and

3 It is interesting to note in passing that this central metaphor has indeed been taken up by policy makers, and it received a ringing endorsement and a central place in justifying the UK coalition government’s laissez-faire approach to public health.[5]
Quote 2: ‘The range of options available to government and policy makers can be thought of as a ladder of interventions, with **progressive steps** from individual freedom and responsibility towards state intervention as **one moves up the ladder**’ (p.42 – my italics).

Both of these quotes suggest movement from bottom to top as graded and progressive with each step entailing a necessary concomitant restriction of freedom. Presumably such restriction is seen to be a bad thing, as it apparently requires ‘stronger justification’. In other places in the text, however, it seems as though there is more at stake than just liberty, so other considerations are also mentioned. For example, quote 1 is followed immediately by:

Quote 3: ‘A **more intrusive policy initiative** is likely to be publicly acceptable only if it is clear that it will **produce the desired effect** and that this **can be weighed against the loss of liberty** that will result’ (p.42 – my italics).

And quote 2 is followed by:

Quote 4: ‘In considering which ‘rung’ is appropriate for a particular public health goal, the **benefits to individuals and society should be weighed against the erosion of individual freedom**. Economic costs and benefits would need to be taken into account **alongside** health and societal benefits’ (p.42 – my italics).

The first two quotes suggest that we should hold liberty as the key value and move up from the bottom of the ladder to the top (at our peril). The second two quotes, more compatible with the NCB’s pluralism, suggest that liberty is only one of the many relevant considerations to take into account in policy making. I don’t see how quotes 1 and 2 can be made compatible with quotes 3 and 4, and I think these tensions are symptomatic of a fundamental incoherence in the role of the intervention ladder within the NCB’s broader policy approach. I suggest that we can restore coherence in two ways. One is to embrace the **value pluralism** that the NCB officially supports, but this entails rejecting the intervention ladder as a useful policy tool. The alternative is to embrace the intervention ladder, accept a focus on a single scalar value, namely liberty, and a commitment to have the **least restrictive alternative** possible, but this entails rejecting the NCB’s pluralism. This dilemma is central to my discussion in this paper.

### 3. Rungs on the Ladder. Will the Ladder Function?

Let’s assume, for now, that the role of the intervention ladder in policy deliberation is coherent and clear. In this section I argue that even in its own terms the ladder, conceived of as a series of rungs of types of intervention, arranged in the suggested order, does not work. One thing that seems really important to a ladder is that one rung is firmly fixed above the previous ones, allowing a seamless and accident-free
ascent. However, a major problem with the intervention ladder is that this is not the case. Let’s consider the different rungs and where they are placed.

The first rung is ‘do nothing or simply monitor the situation’. However, a problem is immediately obvious in that these two elements are not the same.  

Monitoring a situation may require substantive public health activity such as surveillance work, seeking to remain vigilant for disease outbreaks or changes in a population’s health. This is very different from ‘doing nothing’. So perhaps we need to attach another rung at the bottom of the ladder, or perhaps ‘doing nothing’ is the ground on which the ladder stands?

It is not clear how the second (‘provide information’) and the third (‘enable choice’) rungs can be clearly separated, as information will often be a key aspect of enabling a choice. The second rung is a possible but not necessary means to the third. Normal, safe ascent of a ladder would entail necessarily moving from the second to a third rung. In addition, I find it difficult to understand why the provision of a cycling lane (one of the examples the NCB use of a third rung intervention) is considered to be more ‘restrictive’ than the provision of information (rung 2). It may be more costly (in terms of expense) and involve opportunity costs, but this has no direct impact on liberty. In fact, the provision of a cycling lane, where there was not one previously, may be considered to be providing a new opportunity for autonomous choice where one did not exist before.

It is equally hard to see how rungs four, five and six can be ordered in the way suggested or kept apart, as providing incentives (fifth) or disincentives (six) may be ways to change a default policy (four). Indeed, providing information (two) seems like another way to change a default. So it is unclear how these ‘rungs’ are to be ordered at all. Is it obvious that disincentives are more problematic (as they are higher) than incentives? Why should we think that taxing tobacco (a disincentive) is more problematic than paying people to quit tobacco use (an incentive)? If it is the idea of an ‘interference’ that is supposed to be wrong, it is presumably wrong because it pushes or coerces in a particular direction. It is hard to see why the positive or negative nature of the means contributes to its wrongness (at least in the liberty-restricting respect).

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4 Rather bizarrely the NCB say something like this themselves (p.42).

5 For discussion of how richer accounts of autonomy would complicate any intervention ladder, even if we stick with gradations using that single value.[6]

6 Presumably, rung 4 (Guide choices through changing the default policy) is held to be lower because the NCB seem to presume that so-called ‘nudging’ or libertarian paternalism is less of an “interference” than rung 5 and 6 activities. Critics of nudging would, of course, dispute this. I don’t have the space to explore this here, but my own view is that the very idea of nudging assumes that liberty is the value to be given highest priority, and so the very way the debate is set up assumes a contestable ranking of values.

7 In fact, I find it hard to understand why we should think of taxation on something such as tobacco as strictly interfering with liberty at all. A higher price may be irritating and may mean I have to forgo other things I want, but strictly speaking I’m still free to buy tobacco. The exception would be when
So we have added a rung, collapsed two together, and suggested it is not clear how other rungs are to be held one above another. It’s very hard to see the intervention ladder as a useful policy tool after this quick survey. Even if we still have a useful ladder, it would seem to be a dangerous one, and using it is surely inadvisable. What, I think, this points to is the conclusion that there is no clear metric that can be used to rank the rungs or even describe each rung, beyond a vague idea about one thing being more ‘restrictive’ than something else. So now we come to the heart of the metaphor: what exactly is it that is supposed to justify the normative status of the intervention ladder itself?

4. Value Ranking and the Intervention Ladder

It has been suggested to me in conversation that I am taking the linear nature of the ladder too seriously and that there is no suggestion that we must move from lower rungs to higher rungs. However, I think the natural way to read the metaphor is to see it as an ascending ranking of choices with the ‘least restrictive’ at the bottom and the most restrictive at the top. This allows actual or tacit appeal to the idea of the least restrictive alternative. This also allows us to understand the normative commitment behind the ladder rankings: the lesser the restriction, the better the policy. The idea of the Least Restrictive Alternative (LRA) had its origins in US jurisprudence about mental health. However, it is increasingly common in discussions of public health ethics and in public health policy documents. There is much to say about it, but here I will focus on using the LRA principle as a means of interpreting the way that the intervention ladder is supposed to work.

Again we have a tension between two possible interpretations of LRA and hence a lack of clarity in how we are to think about the ordering of the rungs on the ladder. To illustrate these alternatives I will turn to the discussion of LRA by two authorities in public health ethics and law, Ross Upshur,[7] who outlines a series of principles for public health ethics that includes the ‘least restrictive or coercive means’, and Larry Gostin,[8] who includes ‘the least restrictive alternative’ in his list of public health values that are important for pandemic planning and response.

Gostin offers a means/ends account of LRA when he says:

rates of taxation are exorbitant to the point that an average person cannot afford the goods in question.

There are a number of parallel formulations of similar policy ‘principles’, such as invoking not just the least restrictive alternative (LRA), but also the least coercive alternative (LCA) and the least infringing alternative (LIA). These each require separate discussion, but broadly speaking the same objections I frame here in terms of LRA can apply to LCA and LIA.

For more on related issues, see [9-11].

I don’t have space to outline their full views here, but see [10] for discussion of public health principlism.
‘The standard does not require officials to utilize less-than-optimal interventions, but rather to select the least intrusive alternative than can best achieve the identified health objective’ (p.368).

On this view, LRA is used in the choice between alternatives once the end (that which best achieves the relevant public health goal) is identified. The end can be chosen on the basis that it is optimal in terms of promoting health. There are two key problems with this approach to LRA. First, if we are to choose the least restrictive alternative as a means to a particular end, what’s to stop us just changing the end if we decide we want a more restrictive policy? On this view, what counts as the relevant end is both crucial and contentious, and it is unclear how we are supposed to keep this ‘fixed’. Second, if we ignore the first objection, then this interpretation seems to make LRA out to be pretty trivial. Why would anyone aim to introduce a more restrictive intervention than was necessary to attain a particular end (once we are agreed on that particular end)?

Upshur offers a slightly different two-stage process:

‘This principle recognizes that a variety of means exist to achieve public health ends, but that the full force of state authority and power should be reserved for exceptional circumstances and that more coercive methods should be employed only when less coercive methods have failed’ (p.102).

Here, there is a clear order of priorities, in which we start with the least restrictive and move on to the next most restrictive intervention only once the lesser restrictive measure has failed, and so on. This priorities interpretation clearly has similarities with a more substantive interpretation of the intervention ladder, with the role of liberty being given such a high ranking in our values that it is the fundamental determinant of policy. We only move on to the next step of more restriction/coercion once there has been a failure to achieve the policy goal at the lesser level. Gostin’s means/ends interpretation suggests a much later and weaker role for liberty in policy decision-making, and such a view applied to the NCB position may suggest that the intervention ladder is actually not that important, but is more of a means of making marginal determinations of what we ought to do once our public health goals are set (taking into account all relevant considerations).

Given all the detail of the metaphor of the intervention ladder as outlined above, it certainly seems a natural interpretation to accept the stepped priorities view-of the LRA as central to the ladder, and this certainly seems to be the way that the coalition government understand it and implement it.11 They use it to justify their ideological commitment to promoting voluntary deals with industry and an informational approach to health promotion. The focus on the single value of liberty means that there is no engagement with the relevant evidence about what is effective, no acknowledgement of how collective values can be protective and promoting for

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11 Of course, the NCB cannot be held liable for the government’s use of their tool, but it should have been apparent given the way the intervention ladder is structured, that this would be the result.
individuals, and no sense of how the intervention ladder conflicts with their other declared policy goals such as a declared concern about health inequities.  

The very idea of the least restrictive alternative encourages the idea that each value is separate and we want the most or the least of something. Liberty is good and restrictions are bad. We should maximise liberty and minimise restrictions. But values don’t work like this. Sometimes, all things considered, less of a value, even something that we think is really, really valuable, can be for the best. In addition, a fundamental problem with the very idea of the least restrictive alternative, and there seems to be a similar issue at the heart of the intervention ladder, is that the focus on liberty assumes that we can make judgements about this one value in isolation from all others. There is an implicit ceteris paribus clause in the approach. We can judge what is more or less restrictive, but we can only do this if all else remains equal. However, all else does not remain equal. Expanding or contracting a single value, such as liberty, is almost certainly going to interact with and impact on other values. This is why we think of ethics as involving trade-offs between values. We may need to decide how much liberty we are willing to sacrifice to bring about greater equity or greater well-being.  

There may be the occasional case where we have agreed the end and we only use LRA to select which means is best, but such situations are not going to be common in real world policy making. Policy making is messy and difficult and all kinds of trade-offs will be necessary. The NCB’s commitment to their pluralistic framework seems to accept this. The intervention ladder actually gets in the way of this approach, because it focuses our attention only on a single value (liberty) and makes it less likely that other values will be given their due.  

As an example, suppose you were worried about rising rates of alcohol use in the population. Which policy should you introduce? If you follow the intervention ladder, it is natural to start by doing nothing, before slowly thinking about moving up the rungs of the ladder (as each successive policy fails). However, any pluralist, including the NCB, may reject this and look at the full range of relevant considerations and not just look at the impact on liberty. We might have good evidence that information provision will make no difference (other interventions may be more effective). One option would be to have a disincentive through a higher

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12 To be fair to the government, they seem ultimately committed to the same incoherence as the NCB in terms of promoting the intervention ladder and also suggesting they are concerned about health inequities.

13 A better metaphor than a ladder would be thinking about a sound mixing desk on which each of the levers and dials represents different values and can be changed to add more or less for different frequencies, tracks or instruments. Moving one of these, adding bass, for example, may mean that others need to be changed to create a harmonious sound.

14 Of course, such a focus on liberty and the intervention ladder itself, both seem to conceptualise public health policy and related ethical issues in a narrow way. Presumably, public health ethics is to be seen as a fight between the free individual versus the oppressive state. So much is wrong with this idea that it is unclear where to start. But note that as a focus for policy it is hopeless. How do we conceptualise our obligations in relate to climate change, population migration, pollution or ecological devastation in such terms?
price, but this may have differential impact on some sub-groups (e.g. such a policy is likely to be regressive).[12] So it might turn out that ‘restricting choice’ (e.g. restricting opening hours and places of sale, etc.) may be both more effective and more just (as it has a more equal impact). A balanced approach to policy making involves considering at the point of policy implementation all relevant factors, not crawling up the rungs of the ladder as policy failure follows policy failure.

So if we count more than liberty as relevant, we cannot use the intervention ladder. The NCB’s dilemma is that they are forced to either reject the ladder or their pluralism. I have suggested some reasons why they should do the former. More generally, the intervention ladder is incoherent in its own terms, it is confusing as a metaphor and policy tool, and it fails to capture relevant normative considerations.

Conclusions

The intervention ladder is a problematic metaphor. It encourages ‘two-dimensional’ policy making, because it is only focused on less or more liberty. This conflicts with the NCB’s stated pluralistic approach to relevant values. It is only the libertarian, someone who thinks that liberty is all that matters, who should purchase the intervention ladder from the policy DIY store. Any liberal, or any value pluralist, should look elsewhere for their favourite metaphors and policy tools. Public health seeks to provide the conditions for individual and collective flourishing. Part of such flourishing is, undoubtedly, having the freedom to make one’s own choices. But there is more than this to flourishing, and hence more to public health policy than merely maximising liberty. Public health seeks to provide ladders to promote health and to act to remove or reduce the potential harm from life’s snakes. We are not mere individual counters in a board game, locked into economic competition, one against all others. Ultimately, life is a collective endeavour, and public health policy and practice provides a key role in ensuring that as many people as possible get the most out of the game.

Bibliography


